January 13, 2016

Dear [Redacted]:

Re: Your request for access to information under Part II of the Access to Information and Protection of Privacy Act
(File # NR-023-2015)

This is to confirm that on December 14, 2015, The Department of Natural Resources received your request for access to the following records/information:

All briefing materials prepared for and/or provided to Minister Siobhan Coady upon assuming the role of minister of Natural Resources. Where possible, electronic copies of all records are preferable to print copies.

I am pleased to inform you that a decision has been made by the Deputy Minister of the Department of Natural Resources to provide access to some of the requested information.

As required by 8(2) of the Act, we have severed information that is unable to be disclosed and have provided you with as much information as possible. In accordance with your request for a copy of the records, the appropriate copies have been enclosed.

Access to the remaining records, and/or 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):

Sec 27 Cabinet Confidence
Sec 29 Policy Advice or Recommendations
Sec 30 Legal Advice
Sec 35 Disclosure Harmful to the Financial or Economic Interests of a Public Body

P.O. Box 8700, St. John’s, NL, Canada A1B 4J6 t 709.729-3214
Sec 39(2) Disclosure Harmful to Business Interests of a Third Party

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

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

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

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

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

Please be advised that responsive records will be published following a 72 hour period after the response is sent electronically to you or five business days in the case where records are mailed to you. It is the goal to have the responsive records posted to the Office of Public Engagement’s website within one business day following the applicable period of time.

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

Sincerely,

[Signature]

Renée Pendergast
Departmental ATIPP Coordinator
Department of Natural Resources

Enhancing Newfoundland and Labrador through the promotion, exploration and development of our mineral and energy resources.
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I. Overview of the Department

Departmental Locations

The main office is located in the Natural Resources Building in St. John’s which houses the majority of departmental staff. Four staff members work at offices in Grand Falls-Windsor, Pasadena and Happy Valley-Goose Bay, delivering services under the quarry materials and core storage programs. In addition, five employees are located at the department’s geochemical laboratory at the Howley Building in St. John’s.

The department’s main office address is as follows:

Department of Natural Resources
50 Elizabeth Avenue
P.O. Box 8700
St. John’s, NL A1B 4J6

The department’s web site address is www.nr.gov.nl.ca. A link to the department’s web site is also provided on the main web site for the Government of Newfoundland and Labrador at www.gov.nl.ca.
**Mandate**

The mandate of the Department of Natural Resources includes the supervision, control and direction of all matters relating to:

- The promotion and exploration of mineral and energy resources and related industry development activities
- Mines, minerals, quarries, quarry materials and beaches
- Onshore petroleum resources
- Offshore petroleum resources, managed jointly with the federal government
- Electrical generation and transmission
- Overall responsibility for provincial energy supply and demand
- Development, monitoring, supervision, assistance or other government intervention into any of the industries as described above
- Petroleum royalties and associated matters, within or outside the province
- Identifying, assessing and monitoring industrial benefits commitments from major resource development projects.
Lines of Business

Programs and services delivered by the department fall within one of the four lines of business defined below.

Resource Policy

Working closely with key stakeholders, the department develops, maintains and administers resource policy to coordinate and facilitate sustainable development and management. In doing so, the department directly and indirectly develops, monitors and/or initiates supporting regulatory and benefits activities.

Resource Management

In the onshore area of the province, the department ensures that industry follows responsible resource development and management practices for the maximum benefit of the people of the province. To achieve this, the department monitors resource development activities to ensure adherence to relevant policy and is responsible for the development and administration of royalty regimes for petroleum projects (onshore and offshore). The department also administers title allocation and ensures compliance with site development and rehabilitation requirements\(^1\).

With respect to offshore petroleum activity the department discharges its operational resource management functions under a joint federal-provincial regime administered by the C-NLOPB.

\(^1\) A number of onshore resource management activities are carried out by the Department of Environment and Conservation (e.g., monitoring compliance with environmental regulations) and Service NL (e.g., monitoring compliance with occupational health and safety regulations).
In the electricity sector, the department provides advice and support for government decision-making related to resource management. Other resource management activities are implemented through the PUB and Newfoundland and Labrador Hydro.

**Resource Exploration and Assessment**

Exploration for petroleum and minerals is the first, and most important, step in natural resource development. The department attracts resource exploration through the collection and dissemination of geoscience data. This information is accumulated through direct geoscience research and is distributed to the exploration community which reduces overall exploration risk and provides an incentive for industry to explore in Newfoundland and Labrador. The department also maintains an extensive library of drill core originating from mineral and onshore petroleum exploration activities and provides training, mentoring and other supports to prospectors.

**Promotion and Facilitation of Resource Development**

Resource development projects generally tend to be long term and capital intensive and generate significant economic and employment benefits. These projects can be important catalysts of growth, particularly for rural areas, as well as for the development of industrial infrastructure and the province’s supply and service capabilities. Departmental activities are specifically directed to negotiating, promoting and facilitating well-planned, responsible mineral and energy development and associated business and employment opportunities.
Vision

The department’s vision and mission represent the higher ideals and outcomes that the department strives for in the delivery of its programs and services. The vision is an inspirational statement that represents the ideal state that would exist if the department was successful in completely fulfilling its mandate. The department’s vision is as follows:

*The vision of the Department of Natural Resources is a province that realizes the full benefit from the sustainable development of its natural resources.*

Mission

The department’s mission represents an ultimate outcome that the department intends to achieve over a period of time. While there are a number of outcomes that the department is working towards, the mission represents the single-most important focus for the period identified. The department’s mission, first developed in 2011 for the period 2011-17, is as follows:

*By March 31, 2017, the Department of Natural Resources will have supported the growth of the energy and mineral resource industries in a sustainable manner for the benefit of future generations.*
## Core Values

<table>
<thead>
<tr>
<th>Professionalism</th>
<th>Innovation</th>
<th>Safety</th>
<th>Diversity</th>
<th>Leadership</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each individual demonstrates high professional standards and positive attitudes, and delivers quality service in an objective, timely and responsive manner.</td>
<td>Each individual demonstrates initiative, creativity and flexibility in responding to challenges and change.</td>
<td>Each individual holds the personal safety of themselves and co-workers in the highest regard and will promote workplace safety at all times.</td>
<td>Each individual encourages an open exchange about ideas and decisions, and welcomes the varied opinions that contribute to new creative ideas and the development of comprehensive programs and services.</td>
<td>Each individual takes every opportunity to successfully integrate and use available resources within the department for the attainment of organizational goals.</td>
<td>Each individual is open to sharing their knowledge with others and actively seeks the opinions and ideas of others to achieve the desired results.</td>
</tr>
</tbody>
</table>
Primary Stakeholders

- Exploration and resource development companies.
- Electrical generation and supply distribution companies.
- Energy consumers (refined petroleum products and electricity for industrial, commercial and residential customers).
- Supply and service companies in the resource and electricity sector.
- Industry associations and labour groups.
- GNL departments, crown corporations and agencies.
- Other regulatory agencies.

Legislation

The department carries out its mandate, in part, through the administration of legislation and associated regulations. Legislation under the authority of the Minister of Natural Resources includes the following.

Mines

Mineral Act. Defines the rights of mineral explorers and developers of mineral properties; outlines the methodology to be used in obtaining such rights and the areas where government may regulate activity.

Mineral Holding Impost Tax Act. Taxes the holders of mineral properties that do not fall under the Mineral Act with the aim of motivating holders to either: a) conduct exploration, or b) surrender their land upon which it would become subject to the Mineral Act.
**Mining Act.** Regulates the development, operation and closure of mines in the province. The act achieves this by outlining requirements for development, operational and rehabilitation and closure plans, as well as mining licenses and financial assurance. This Act does not deal with Occupational Health and Safety matters.

**Quarry Materials Act.** Defines the rights of explorers and developers of quarry materials and areas where government may regulate activity; outlines the methods by which quarry rights may be acquired and defines royalties and rentals payable to government as a result of quarry development.

**Undeveloped Minerals Areas Act.** Enables government to arrange for the exploration of private mineral properties that, in government’s opinion, have not been adequately explored. Properties affected by this act have been identified by various orders and, generally, are not covered by the Mineral Act.

**Energy**

**Canada-Newfoundland and Labrador Atlantic Accord Implementation Newfoundland and Labrador Act.** Sets out the mechanism for joint federal-provincial management of the Newfoundland and Labrador offshore area through the Canada-Newfoundland Offshore Petroleum Board; also defines the methods of obtaining exploration and production rights, the requirements for safety, resource conservation and environmental protection, and the activities that may be regulated. The act is mirrored in federal statutes.
**Churchill Falls (Labrador) Corporation Limited Act.** Authorizes the Lieutenant-Government in Council to execute and deliver an indenture, leasing certain water powers in Labrador to Churchill Falls (Labrador) Corporation Limited and to make provision respecting other related matters.

**Electrical Power Control Act.** Sets policy with regard to electric power rates and establishes provisions for the determination of such power rates by the Public Utilities Board.

**Energy Corporation Act.** Establishes the existence of, and sets out the mandate, powers and management structure of the Energy Corporation of Newfoundland and Labrador as a Crown agency.

**Energy Corporation of Newfoundland and Labrador Water Rights Act.** Enables the issuance of water rights to the Energy Corporation of Newfoundland and Labrador for the Lower Churchill River.

**Hydro Corporation Act.** Establishes the mandate, powers and management structure of the Newfoundland and Labrador Hydro-Electric Corporation as a Crown agency.

**Lower Churchill Development Act.** Authorizes the Minister of Natural Resources to enter into an option agreement with the Lower Churchill Development Corporation, guaranteeing the corporation executive water rights, rights to flood land and a sole option to purchase the Gull Island hydro assets.

**Miscellaneous Financial Provisions Act.** Removes any restrictions elsewhere in provincial legislation on government assigning to Newfoundland and Labrador Hydro-Electric Corporation a right, title or interest in royalties and rentals in clauses 1 and 8 of Part II of the lease between government and CF(L) Co.
**Muskrat Falls Project Land Use and Expropriation Act**
A stand-alone, lands-related act to ensure that Nalcor and Emera have the ability to acquire the necessary land interests to advance the Muskrat Falls project.

**Newfoundland and Labrador Power Commission (Water Power) Act.** Extinguishes certain water power rights previously held by BRINCO and provides for their assignment to Newfoundland and Labrador Hydro (Power Commission) to facilitate financing of the Bay d’Espoir hydro-electric project.

**Petroleum and Natural Gas Act.** Defines how the rights to explore for and develop oil and gas properties on land may be obtained and maintained, how areas may be assigned for exploration, the scope with which government may regulate activity and the various royalties that may be due.
Organizational Structure

Executive

The department’s programs and services are delivered through the Mines and Energy Branches, supported by shared executive and support services. The following organizational chart illustrates the structure of the department’s executive team.
Mineral Resources Branch

The Mineral Resources Branch (Mines Branch) is divided into the Mineral Development, Mineral Lands and Geological Survey divisions and is led by ADM David Liverman.

The Mineral Development Division is responsible for the approval and permitting of mining operations through the Mining Act; the administration of the Mineral Incentive Program; the collection, analysis and publication of mineral production data; and the assessment and rehabilitation of abandoned mine sites across the province.

The Mineral Lands Division is responsible for the administration of mineral land tenure through the Mineral Act, the Mineral Holdings Impost Act and related legislation, including the issuance of exploration licenses and mining leases; the administration of quarry material rights and developments, including on-going field investigations, through the Quarry Materials Act; issuing exploration approvals and the performance of follow-up inspections; the maintenance of the core library system and the provincial mineral rights registry.

The Geological Survey Division is responsible for mapping and interpreting the province’s geology; conducting geochemical and geophysical surveys; conducting mineral deposit studies; maintaining and publishing maps, reports and databases concerning the province’s geological and mineral endowment, including geographic information system databases and web-delivery; and promoting the province’s mineral potential.
**Energy Branch**

The Energy Branch is divided into three sections, each made up of several divisions.

The **Petroleum Development Section** is made up of the Petroleum Engineering, Petroleum Geoscience and Petroleum Marketing and Promotion divisions and is led by **ADM Wes Foote**.

The section is responsible for fostering the exploration, development and production of the province's hydrocarbon resources. Responsibilities include: the provision of technical services in the areas of petroleum geoscience, petroleum engineering and petroleum operations to facilitate sustainable development and management for both onshore and offshore deposits; and, the provision of marketing and promotional services, both nationally and internationally, to help ensure continued interest and investment by industry.

The **Royalties and Benefits Section** is made up of the Royalties Administration and Monitoring, Benefits Administration and Energy Economics divisions and is led by **ADM Paul Carter**.

The section is responsible for maximizing the benefits to the local economy from the development of major resource projects. Responsibilities include: the negotiation, development and administration of energy and mines project agreements and royalty legislation/regulations; the negotiation and monitoring of industrial benefits commitments related to energy and mines resource developments; the auditing of petroleum project costs and revenues to verify the accuracy of royalties paid to the province; the provision of energy-related economic/financial and supply/demand information, analysis and advice to inform resource management decisions; and the promotion of the province’s industrial capacity and capabilities.
The **Energy Policy Section** is made up of the Electricity and Alternative Energy, Energy Policy, Planning and Coordination and Regulatory Affairs divisions and is led by **ADM Paul Morris**.

The section is responsible for developing, planning and coordinating legislative, regulatory and policy matters relating to the province's energy sector. Responsibilities include: the management/co-management of onshore/offshore petroleum exploration and development, including regulatory development and compliance; electricity industry governance and structure, electricity industry markets, alternative energy, and responsibility for the *Electrical Power Control Act*; and general policy, planning and coordination related to the energy sector.

**Employees**

As of November 4, 2015, the Department of Natural Resources had 193 positions. At the time of reporting there were 167 staff members.

<table>
<thead>
<tr>
<th>Branch</th>
<th>Female</th>
<th>Male</th>
<th>Vacant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mines</td>
<td>30</td>
<td>53</td>
<td>9</td>
<td>92</td>
</tr>
<tr>
<td>Energy</td>
<td>28</td>
<td>28</td>
<td>11</td>
<td>67</td>
</tr>
<tr>
<td>Financial Operations(^1)</td>
<td>2</td>
<td>6</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Executive &amp; Executive</td>
<td>15</td>
<td>5</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>75</td>
<td>92</td>
<td>26</td>
<td>193</td>
</tr>
</tbody>
</table>

\(^1\)Financial Operations staff are shared with the Forestry and Agrifoods Agency and the Department of Fisheries and Aquaculture.
Budget and Expenditures for 2015-16

The 2015-16 operating budget for the divisions and sections of the department is just over $23 million. The chart below breaks out the figures for the three divisions of the Mines Branch as well as the three sections of the Energy Branch. These figures do not include $3.4 million related to executive and support services, some of which are shared with the Forestry and Agrifoods Agency as well as the Department of Fisheries and Aquaculture.

In addition to these amounts, $8.8 million was budgeted for the 2015-16 operational funding of the C-NLOPB and $760 million in capital was allotted for Nalcor Energy for the purpose of oil and gas activities and the Lower Churchill Project.
The following tables provide an overview of expenditures and revenue for the current fiscal year. The tables are based on mid-year figures.

**Budget: Mid-year October 2015**

<table>
<thead>
<tr>
<th>Division/Section</th>
<th>Budget</th>
<th>Encumbrance + Actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geological Survey</td>
<td>5,640,400</td>
<td>3,423,898</td>
</tr>
<tr>
<td>Mineral Development</td>
<td>3,459,400</td>
<td>1,335,293</td>
</tr>
<tr>
<td>Mineral Lands</td>
<td>1,439,700</td>
<td>969,944</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum Development</td>
<td>1,955,900</td>
<td>990,388</td>
</tr>
<tr>
<td>Royalties &amp; Benefits</td>
<td>5,328,400</td>
<td>1,834,548</td>
</tr>
<tr>
<td>Energy Policy</td>
<td>5,196,300</td>
<td>1,807,125</td>
</tr>
<tr>
<td>C-NLOPB</td>
<td>8,835,000</td>
<td>4,417,500</td>
</tr>
<tr>
<td>Grand Total(^2)</td>
<td>31,855,100</td>
<td>14,778,696</td>
</tr>
<tr>
<td>Energy Initiatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Capital)</td>
<td>760,000,000</td>
<td>183,868,165</td>
</tr>
</tbody>
</table>

\(^2\) Budget figures above include an additional $164,000 that was provided by the Department of Finance after the original budget was approved for the Job Evaluation System implementation.
Revenue: Mid-year October 2015

<table>
<thead>
<tr>
<th>Division/Section</th>
<th>Budget</th>
<th>Encumbrance + Actuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geological Survey</td>
<td>4,000</td>
<td>0</td>
</tr>
<tr>
<td>Mineral Lands</td>
<td>610,000</td>
<td>0</td>
</tr>
<tr>
<td>Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum Development</td>
<td>81,000</td>
<td>62,600</td>
</tr>
<tr>
<td>C-NLOPB</td>
<td>6,626,300</td>
<td>3,310,501</td>
</tr>
<tr>
<td>Grand Total</td>
<td>7,321,300</td>
<td>3,373,101</td>
</tr>
</tbody>
</table>

Recent Budget Reduction Initiatives

There have been a number of initiatives approved as a means of reducing the overall departmental budget. Recent reduction decisions include:

- Elimination of the Professional Services Contract for the Strategic Energy Advisor - $150,000 reduction (commencing 2016-17)
- Reduction in the Mineral Incentive Program - $303,000
- Reduction in staffing for the Geological Survey through attrition - $401,600 reduction (cumulative 5yr Total)
- Attrition Management - $717,600 reduction through attrition (cumulative 5yr Total); in addition to the above noted Geological Survey attrition
- Total savings: $1,572,200
The department has also identified ways to reduce the overall budget through increasing revenue generation. Recent revenue generation decisions include:

- Increased fees associated with staking mineral claims - $175,000 additional revenue
- Increase in Quarry Material Royalties Rate - $500,000 additional revenue
- Increased rentals for Mining Leases, Quarry Leases, and Quarry Permits - $550,000 additional revenue
- Introduced application fees for approvals under the Mining Act (various fees) - $32,500 additional revenue
Natural Resources Entities

The Department of Natural Resources has legislative oversight of the following public bodies in the mines and energy sectors.

1. Nalcor Energy, Newfoundland and Labrador Hydro and their subsidiaries:
   - Nalcor Energy Oil and Gas
   - Nalcor Energy Marketing Corporation
   - Muskrat Falls Corporation
   - Lower Churchill Development Corporation
   - Churchill Falls (Labrador) Corporation
   - Twin Falls Power Corporation
   - Gull Island Power Corporation
   - Labrador Island Link Holding Corporation
   - Labrador Island Link General Partner Corporation
   - Labrador Island Link Operating Corporation
   - Labrador Transmission Corporation
   - Lower Churchill Management Corporation
   - Bull Arm Fabrication Inc.

2. Terra Nova Reference Price Committee

3. Muskrat Falls Project Land Use and Expropriation Arbitration Panel

4. Mineral Rights Adjudication Board

5. C-NLOPB (shared jurisdiction with the Federal Government)
II. The Minister’s Office

Deputy Minister

Charles Bown: Appointed September 2012

Office Staff

Minister’s Secretary: Brenda Haynes
DM’s Secretary: Melissa Jordan
7th Floor Lobby: Jessica Connors

Hours of Work

Monday – Friday 8:30am – 4:30pm
Minister’s office: 8:30am – 5:00pm

Communications

Director: Diana Quinton
Manager: Debbie Marnell

The Communications group performs daily media monitoring, prepares Ministerial responses to media requests, speech writing and House of Assembly planning and preparation.
Executive Assistant

The Executive Assistant works closely with the DM and the Minister’s secretary on the Minister’s calendar, correspondence, meeting requests and the Minister’s agenda for the department.

Parliamentary Secretary

From time to time there has been a Parliamentary Secretary to the Minister. This role, in the past, was primarily focussed on assisting in the management of the Forestry and Agrifoods Agency.

Building Organization and Management

Building Information Officer
Mike Russell

Building Manager
Jim Williams (Transportation and Works)
Office on the 8th floor Natural Resources Building

The building manager is responsible for building maintenance, and management of cleaning and snow clearing contracts.

Building Security
After-hours access to the Natural Resources Building is via security key FOB. The exterior doors have an active security system and an alarm will sound if the doors are opened without using the key FOB. In the event that an alarm is triggered, a number for
Transportation and Works Security Services is posted at the Building Information Officer’s desk in the main lobby.

**Department Structure by Floor**

<table>
<thead>
<tr>
<th>Floor</th>
<th>Divisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Divisions</strong>: Information Management; Geoscience Publications and Information.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Division</strong>: Geological Survey.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Divisions</strong>: Mineral Development; Mineral Lands.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Divisions</strong>: Petroleum Engineering; Petroleum Geoscience; Regulatory Affairs; Energy Economics; Benefits Administration; Petroleum Marketing and Promotion.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Divisions</strong>: Energy Policy, Planning and Coordination; Electricity and Alternative Energy.</td>
</tr>
<tr>
<td>6</td>
<td><strong>Executive</strong>: ADM, Energy Policy.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Executive</strong>: Associate DM, Energy; ADM Royalties and Benefits; ADM, Petroleum Development, ADM, Mines; Executive Director, Strategic Planning and Policy Coordination; Executive Director, Iron Ore Industry.</td>
</tr>
</tbody>
</table>

**Other**: Forestry and Agrifoods Agency (Policy Division, Executive offices).

**Minister’s Suite**: DM, Communications staff, Minister and DM support staff.

**Department of Natural Resources – Overview 2015**
Parking
Departmental policy is to back-in to parking spaces. The exception is angled parking on the west side of the building. There is a parking garage at the back with upper and lower parking. The lower garage is locked by TW staff at 6:00 pm. Access to the upper parking is via Mount Cashel Avenue.

Building Lobby
The stone tiles on the floors and walls of the lobby are “Labradorite”, which is the provincial mineral of Newfoundland and Labrador. The stone was quarried at the Ten Mile Bay quarry, south of Nain.

Meeting Rooms
The 7th floor has 3 meeting rooms with one located in the Minister’s suite. The 5th floor has a large meeting room. Other rooms exist on the 3rd and 4th floors. The Lower Level has a lunch room/conference room and a large multimedia boardroom.

III. Recent Announcements

February 2015

Agreement with Vale Secures an Additional $230 Million Investment in Province
Amendments made to the Voisey’s Bay Agreement resulted in an estimated additional $200 million in compensation and a $30 million commitment for community initiatives in the province. The opportunity to make improvements to the development agreement arose because of the delayed construction schedule at the Long Harbour nickel processing plant.
March 2015

**Update on Muskrat Falls (Quarterly Oversight Report – Dec 2014)**
The report noted that the project capital budget of $6.99 billion and the critical path to first power for December 2017 both remain unchanged. Scheduling pressures were being experienced. Production improvements were required at the Muskrat Falls Generating Facility in order to maintain the critical path and milestone schedule. Mitigation actions were being implemented.

**First Call for Bids Issued Under New Land Tenure Regime**
The November 2015 Call for Bids was the first under the province’s new land tenure system. The Call for Bids consisted of 11 parcels and a total of 2.5 million hectares in the Eastern Newfoundland Region. The minimum bid for each parcel offered was $10 million in work commitments.

May 2015

**Provincial Government Releases Energy Plan Progress Report**
The report provided an update on the first energy plan and highlighted the progress in matching the plan with the development of the province’s energy resources.

**First Major Delivery of Nickel Concentrate from Vale’s Operations in Labrador to Long Harbour**
A significant milestone for Vale and their operations in Long Harbour. The first shipment delivered about 2,000 tonnes of high grade nickel concentrate for Voisey’s Bay. Vale is bringing in this concentrate to be blended with nickel matte from their operations in Indonesia.
Amendments Increase Absolute Liability to $1 Billion for the Offshore
Legislation was amended resulting in offshore operators being held responsible for $1 billion in clean-up costs and damages from a major spill without any proof of fault or negligence; and the establishment of the "polluter-pays" principle for the offshore.

July 2015

Provincial Government Providing Employment Supports to Employees of Teck Resources Duck Pond Operations (AES/NR News release)
Officials with the Department of Advanced Education and Skills met with Teck Resources to offer employment supports and services for approximately 320 employees affected by the closure of the company’s Duck Pond mine in Millertown, which took effect June 30, 2015.

Update on Muskrat Falls (Quarterly Oversight Report – March 2015)
The report noted that mitigation actions continue to be implemented to address the schedule issues at the generating facility. Nalcor Energy reported improvements by the contractor in concrete placement rates for May and June 2015. The report also noted that risk remained to the project contingency budget until two major contracts were awarded.

Premiers of Canada Agree to the Terms of a Canadian Energy Strategy (EC/NR news release)
The Premiers of Canada agreed to the terms of a Canadian Energy Strategy during the 2015 Council of the Federation meeting held in St. John’s.
Ministers Commit to Evaluate Clean Electricity Trade Opportunities (NL/ON agreement)
The Provincial Government and the Government of Ontario committed to exploring opportunities for importing clean and reliable electricity from Newfoundland and Labrador into Ontario. The commitment was made at the 2015 Energy and Mines Ministers’ Conference currently underway in Halifax, Nova Scotia.

Partners in Manitoba, Quebec, Newfoundland and Labrador, the Northwest Territories, Yukon, and Ontario to Find Opportunities to Support Remote Communities
The governments of Manitoba, Quebec, Newfoundland and Labrador, the Northwest Territories, Yukon, and Ontario established a Pan-Canadian Task Force to reduce the use of diesel fuel to generate electricity in remote communities.

Provincial Government Announces 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.

August 2015

Vale meets terms of the amended Voisey’s Bay Development Agreement (Underground Mine)
Vale met the terms of the amended Voisey’s Bay Development Agreement by formally sanctioning construction of an underground mine at Voisey’s Bay. Vale’s commitment to build an underground mine was negotiated by the Provincial Government as part of an amendment made to the agreement announced in March 2013.
September 2015

Update on Muskrat Falls (Nalcor) (Quarterly Oversight Report – August 2015)
The report noted that Nalcor has finalized the costs of the remaining major contracts for
the Muskrat Falls Project and identified additional cost pressures resulting in a revised
project budget from $6.99 billion to $7.65 billion. Impact on the project’s schedule is
being assessed.

October 2015

Oil and Gas Resources Assessment Announcement (EC/NR news release)
The Provincial Government announced that the in-place oil and gas resource potential in
the province’s offshore is 12 billion barrels of oil and 113 trillion cubic feet of gas for the
area covering the 11 parcels currently on offer in the Flemish Pass. These parcels were
up for bid in the first-ever scheduled license round which closed in November 2015.

Release of Power Advisory LLC Report (Review of Province’s Electricity System)
Power Advisory LLC was hired in August 2014 to complete an independent review of the
Newfoundland and Labrador’s electricity system. The review was completed in three
parts: an overview of the provincial electricity system; governance, legislation and
regulations; and system reliability.

November 2015

Release of Framework for Province’s Generic Offshore Oil Royalty Regime
The new regime was developed to provide an internationally competitive, simplified,
and transparent framework to maximize value to the province while respecting the
need for oil companies to earn a fair return on investment. Within the framework,
royalty rates will increase as fields become more profitable.
IV. Ministerial Briefings

Mines
1. Mining Industry Overview
2. Active Mineral Exploration Projects
3. Commodity Prices - Minerals

Energy
1. Newfoundland and Labrador Electricity Overview
2. Nalcor Energy
3. Muskrat Falls
4. Offshore Oil and Gas Industry Overview
5. Western Newfoundland and Labrador Oil and Gas Industry Overview

Departmental Budget 2015-16
1. Budget Estimates
2. Estimates and Variances Notes
V. Priority Issues

1. Wabush Mines
Wabush Mines has registered its Rehabilitation and Closure Plan for environmental assessment. Concurrently, the mine owner has filed for CCAA protection and the court process is ongoing including a deadline for registering claims set for December 18, 2017. The owner had previously posted financial security against closure with NR as required by the Mining Act.

2. C-NLOPB Fundamental Decisions
The CNLOPB is responsible for the administration of petroleum activities in the offshore area. Certain decisions including the issuance of exploration licenses or amendments to terms are subject to review and approval by the provincial and federal Energy Ministers. Several decisions are expected in the coming weeks.

3. Rural Rate Subsidies
Electricity rate subsidies currently in place include the Rural Deficit Study, the Northern Strategic Plan subsidy, and the 2007 GRA Rate Deferral subsidy. The latter of these subsidies is schedule to terminate on Dec 31, 2015, prior to a decision being received from PUB on the NLH GRA.

4. Tri-State RFP
Massachusetts, Connecticut and Rhode Island jointly issued a Request for Proposals (RFP) for Class 1 renewable energy resources on November 12, 2015. The due date for proposal submissions is January 28, 2016 and the selection of bidders will occur between April 26 and July 26, 2016.
VI. Natural Resource Related Campaign Commitments

The Department of Natural Resources has been identified as the lead department/agency for the following commitments:

Oil and Gas

1. Create an Oil and Gas Industry Development Council which will develop a long term strategy for the oil and gas industry
2. Position the Province as a Global Centre of Excellence for deep-water oil and gas development by encouraging and funding research and design efforts in areas such as subsea resources extraction, ice management and operating in extreme weather, corrosion mitigation, enhanced oil recovery, logistics and maritime transportation
3. Ensure effective monitoring and oversight in the oil and gas industry
4. Streamline regulatory approvals in the oil industry
5. Establish a generic royalty regime for all future developments
6. Pursue options for the exploration and development of our offshore reserves of natural gas
7. Base any future decisions regarding the hydraulic fracturing industry on scientific evidence, and most importantly, on a social license from the Newfoundlanders and Labradorians who may be affected
Electricity and Alternative Energy

1. Sell surplus power to mitigate potential increases in electricity rates and reduce ratepayers' bills
2. Open the books on Muskrat Falls
3. Encourage distributed energy generation such as seeking out opportunities to develop wind farms and small scale hydro, prioritizing communities that are isolated from the power grid, including coastal Labrador for wind and small-scale hydro developments
4. Implement net metering programs
5. Intensively market cost-competitive electricity generated by wind and hydro to regional, national and international markets
6. Encourage investment and innovation in electrical power generation projects
7. Seek opportunities to develop the Gull Island hydro project which will include identifying potential markets and scouting potential access routes

Mines

1. Increase the annual investment in the Junior Exploration Assistance Program to $1.5M
2. Consult with industry to explore the possibility of a Venture Capital Fund for Mineral Exploration and Development
3. Continue to fund prospector grants throughout NL

Accountability

1. Improve management oversight of Nalcor by reviewing the operational structure of Nalcor to ensure accountability
Commitments where the Department of Natural Resources would provide support to other departments and agencies:

1. Conduct and publish a labour market analysis to address the skills mismatch in the oil and gas industry
2. Improve management oversight of Nalcor by ensuring that appointments to Nalcor’s Board of Directors are based on the recommendations of the Independent Appointments Commission
3. Develop pay as you save programs for residential, commercial and industrial energy retrofits that generate net benefits (including performance testing before and after a retrofit is undertaken)
4. Develop and publicly release a Natural Areas System Plan
5. Develop a provincial wetlands strategy to facilitate preservation
6. Review current mining tax system to ensure NL's tax regime is competitive
7. Cabinet Committee on 2041
VII. Reference Documents

1. Department of Natural Resources Annual Report 2014-15

2. Department of Natural Resources Strategic Plan 2014-17

3. Departmental Organizational Charts

Department of Natural Resources
Mines

1 Mining Key Facts
2 Active Mineral Exploration Projects
3 Commodity Prices – Minerals
4 Background Notes

Energy

5 Electricity Industry Overview
6 Nalcor Energy Corporate Overview
7 Muskrat Falls Overview and Status Update
8 Offshore Oil and Gas Industry Overview
9 Overview of Oil and Gas Activity in Western NL
10 Background Notes
Gross Value of Mineral Shipments

Sources: Department of Natural Resources and NRCan

p: Preliminary; e: Estimate; f: Forecast
Mining Industry Average Employment

Note: Since 2012, Employment construction is broken out
Sources: Department of Natural Resources and NRCan
p: Preliminary; e: Estimate f: Forecast
Exploration Expenditures

Source: Department of Natural Resources

p: Preliminary; f: Forecast
Quarry Materials - Annual Production

- In 2014 approximately 3.2 million cubic metres of quarry materials were produced in the province from 82 quarry leases and 2037 quarry permits. This has a value of around $50 million.

- The average annual quantity of aggregates produced between 2010 and 2014 was 4.6 million cubic metres.

- Quarry operators are required to submit annual returns documenting the amount of production from each quarry permit or lease and pay royalties based on the amount of production reported.

- Based on 2010 to 2014 quarry production data, the current royalty of $0.75/cubic metre generates revenue of approximately $3 to 4 million annually.

- The amount of production in any given year is driven by the amount of activity in the construction sector.
Regulatory Framework

- Mineral Act and Regulations
- Mining Act, Regulations, and Guidelines
  - Small Scale Operations Regulations
- Mineral Holdings Impost Act and Regulations
- Quarry Materials Act and Regulations
- Undeveloped Minerals Areas Act
- Revenue Administration Act
- Labrador Inuit Land Claims Agreement Act

Other Acts/Agreements
- Labrador Mining and Exploration Company Limited Act (IOC)
- Nalco-Javelin (Mineral Lands) Act, 1957 (Wabush)
- Voisey's Bay Development Agreement
- Agreement between TRE (Newfoundland Pyrophyllite) and the Province
Taxation and Revenue

- Complex system; combination of mining tax, mineral rights tax, and historic agreements governing IOC and Wabush Mines
- Mining tax (operator) effectively 16% of profit (royalty payments deductible)
- Mineral rights tax (royalty holder) 20%; unique to NL in Canada
- IOCC – 5% of net profits, 7% of gross sales
- Land claims agreements include revenue sharing on mining taxation
- Analysis of total tax burden (including corporate tax) shows NL at mid-point for Canada; indirect taxation estimated at 4X direct.
Value of Mineral Shipments and Mining Tax Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>Taxation Revenue</th>
<th>Value of Shipments</th>
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<tbody>
<tr>
<td>2005</td>
<td>1,550</td>
<td>47</td>
</tr>
<tr>
<td>2006</td>
<td>53</td>
<td>359</td>
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<tr>
<td>2007</td>
<td>303</td>
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<td>2009</td>
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<td>135</td>
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<td>2010</td>
<td>283</td>
<td>168</td>
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<td>2011</td>
<td>379</td>
<td>283</td>
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<td>3,834</td>
<td>379</td>
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<tr>
<td>2013</td>
<td>3,647</td>
<td>140</td>
</tr>
<tr>
<td>2014</td>
<td>2,907</td>
<td>108</td>
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Producing Mines - Labrador

1) Iron Ore Company of Canada
   Labrador City - Fe

2) Vale Newfoundland and Labrador Ltd.
   Voisey's Bay - Ni-Cu-Co

3) Tata Steel Minerals Canada Ltd.
   Menihek - Fe
Iron Ore Company of Canada

Luce Pit

- IOC is the largest iron ore producer in the province (2nd in Canada) and is the largest private employer in Newfoundland and Labrador with about 1730 employees in the Labrador West region. In recent years (2011-2013) total employment at IOC has been closer to 2000 due to construction jobs associated with a significant expansion at the site.

- IOC started producing iron concentrates from its Carol Lake (Western Labrador) project in 1962. The company operates several open pits, a concentrator, and a pellet plant at Carol Lake. Products are shipped over a 420-kilometre rail line (owned by IOC) to port facilities in Sept-Îles, Québec and onward from there by ocean-going bulk carriers.

- Nameplate capacity at IOC is now 23.3 million tonnes of concentrate of which about 12.5 million tonnes can be pelletized. Product sales consist of pellets and concentrates.

- Total shipments (pellets + concentrates) forecast for 2015 are 17.1 million tonnes as compared to 14.3 million tonnes for 2014. The increase is a direct result of the $2 billion concentrate expansion project completed in 2014.

- IOC’s Wabush 3 project was released from environmental assessment. This deposit is being developed to provide an alternate feed source for the mill and will not directly affect planned production rates but rather help in IOC cost reduction efforts. The Mineral Development Division is reviewing the associated development plan and amendment to rehabilitation and closure plan.

- No further capacity expansions are currently anticipated.
Vale Newfoundland and Labrador Limited – Voisey’s Bay

Ovoid - Open Pit Voisey’s Bay

- Vale Newfoundland and Labrador (Vale) operates the Voisey’s Bay mine and Long Harbour nickel processing plant subject to conditions of the Voisey’s Bay Development Agreement (DA). Under the DA, Vale is permitted to export nickel concentrate from the mine while the Long Harbour processing plant is being built.

- Vale forecasts 2015 shipments of 58,920 tonnes of nickel, 39,020 tonnes of copper and 970 tonnes of cobalt.

- The current annual employment at the mine is 460 person years.

- Vale is one of the three largest metals and mining companies in the world with headquarters in Brazil but with interests and operations in over 30 countries over five continents, directly employing ~120,000 people. Vale is the global leader in iron ore and pellet production and the second biggest nickel producer.

- Vale sanctioned the Voisey’s Bay underground mine in July 2015 with construction start up in June 2016 aimed at first production in late 2019.

- The Ovoid open pit mine will be exhausted in 2022; underground mining is projected to extend mine life to 2033.
Tata Steel Minerals Canada Ltd.

Processing facility (top)
Tata Dome (bottom)

- Tata Steel Minerals Canada (TSMC) is a joint venture owned 94% by Tata Steel of India and 6% by Canadian junior mining company New Millennium Iron Corp. TSMC has been producing iron ore from its operation in Menihek since 2013.

- TSMC's project involves mining iron ore from nine open pits in the Schefferville area of Quebec and Labrador over at least a 12 year period. Seven of the nine deposits are located within this province. The ore will be processed in Labrador and then shipped by rail to the port of Sept-Îles, Québec.

- The project, with an investment of over $1 billion, is expected to provide 340 person years of employment during operations.

- In 2013 and 2014 respectively, shipments of 240,000 tonnes and 250,000 tonnes were made under an interim material handling and marketing arrangement with IOC. Up to November 6, 2015, 2.1 million tonnes have been shipped.

- The new processing plant is expected to be operational by year end enabling shipments to increase to nameplate capacity of 6 million tonnes in future years.

- Shipments originating from NL in 2016 should be about 1.5 to 2 million tonnes. (Shipments from NL will vary year to year as the company will mine from both QC and NL pits).
Producind Mines / Processing Facilities - Newfoundland

PRODUCING MINES:
1) Anaconda Mining Inc.
   Pine Cove – Au

2) Rambler Metals and Mining Canada Ltd.
   Baie Verte – Cu - Au

3) Teck Duck Pond Operations (Closed mid-2015)
   Millertown – Zn - Cu - Au

4) Hi-Point Industries (1991) Ltd.
   Bishop’s Falls – Peat

5) Trinity Resources Ltd.
   Manuels, CBS – Pyrophyllite

6) Atlantic Minerals Ltd.
   Port au Port – Limestone/Dolomite

7) Barite Mud Services Inc.
   Buchans – Barite

PROCESSING FACILITIES:
8) Vale Newfoundland and Labrador Limited
   Long Harbour - Hydromet Plant

9) Rambler Metals and Mining Canada Ltd.
   Snook’s Arm - Nugget Pond Mill
Vale Newfoundland and Labrador Limited – Long Harbour

Hydromet Plant - Long Harbour (top)
Finished nickel rounds (bottom)

- The Hydromet plant is being constructed in Long Harbour to process Voisey’s Bay nickel concentrate into finished nickel. The plant will have the capacity to produce 50,000 tonnes of finished nickel per year.

- Vale publically reported the total cost of construction for the hydromet plant to be US$4.250 billion.

- Estimated employment at the Long Harbour plant for 2015 is 2,710 person years. This includes 710 employees and contractors associated with operations and an additional 2,000 construction workers.

- First nickel production at the Long Harbour processing plant was achieved in July 2014 with a formal recognition ceremony held on November 19, 2014.

- The plant is currently processing a combination of nickel matt and high grade Voisey’s Bay concentrate with a switch to exclusively high grade Voisey’s Bay concentrate feed by early 2016.

- The final phase of construction of the remaining systems to enable the plant to process 100% of Voisey’s Bay concentrate is ongoing with a current target for ramp up to full production by 2019.

- The Sixth Amendment to the Voisey’s Bay Development Agreement includes an additional export exemption of 94,000 tonnes, a Definitive Unprocessed Nickel Charge of 1.1%, and a $30 million community investment by Vale.
Anaconda Mining Inc. (AMI) operates and wholly owns the Pine Cove gold mine on the Baie Verte Peninsula. The open-pit, truck and shovel operation first reached production in 2008.

- There are 65 people employed at the operation.

- Current reserves will support operations until about 2019/2020.

- Gold shipments for 2015 are forecast at 16,112 troy ounces.

- AMI has recently acquired adjacent land packages and exploration is ongoing.

- The project, including other prospective deposits and exploration targets in the region, has been renamed the Point Rousse Project.
Rambler Metals and Mining Canada Ltd.

Gold Hydromet and Copper Concentrate Mills (top)
Ming Mine underground (bottom)

- RMM operates the Ming copper-gold mine, Nugget Pond mill and port facility at Goodyear’s Cove. The Ming mine began commercial production in November 2012.

- The project is a high-grade, low-tonnage operation with the mine producing 650 metric tonnes of ore per day (tpy) through 2020. Ore from the mine is trucked 40 km to the Nugget Pond mill for processing.

- The Nugget Pond facility has two separate mills; a gold hydromet mill built originally to process the Nugget Pond gold deposit and a recently added copper flotation circuit built by Rambler to process copper ore from the Ming Mine.

- RMM currently employs about 148 people.

- The mine also contains a larger low grade copper resource known as the Lower Footwall Zone (LFZ). A prefeasibility study (PFS) outlines an optimization plan to blend high grade massive sulphides with increasing amounts of lower grade ore from LFZ. The PFS also outlines plans to increase mill throughput to 1250 tpy by 2018. This could extend the mine’s life by 20+ years.

- NL’s Research and Development Corporation provided a $1 million contribution for RMM to determine if economics of the LFZ could be improved by partially concentrating the ore using a dense media separation (DMS) technology.
Atlantic Minerals Limited

Crushing and Washing Plant – Lower Cove (top)
Lower Cove Open Pit Mine (bottom)

- Atlantic Minerals Limited (AML) is located at Lower Cove on the Port au Port Peninsula and is a leading producer of chemical grade limestone, chemical grade dolomite and construction aggregates.

- Ongoing capital projects and productivity improvements, to be completed in 2015, will increase capacity from 3 to 4 million tonnes per year.

- Forecast shipments for 2015 is 3.3 million tonnes valued at $35.2M. The operation has 76 full time positions plus additional seasonal employees generating a total of 127 person years of employment.

- A planned quarry lease expansion requires environmental assessment. Atlantic Minerals Limited was advised in April 2015 that an Environmental Impact Statement (EIS) is required for the project. On April 30, 2015 Atlantic Minerals Limited withdrew the registration due to issues with rare plant habitat. Continuation of operations beyond 2018 depends on submission of another environmental registration acceptable to regulators.
Teck Duck Pond Operations

Underground mine (top); Boundary Pit (bottom)

- Teck Resources Limited (Teck) owns 100% of the Duck Pond project that is located approximately 30 km southeast of Millertown.

- The Duck Pond Mine closed, as scheduled, on June 30, 2015.

- The project consisted of two small open pits, an underground mine, a concentrator (mill), tailings facilities and a 100-person operations camp.

- The production of copper and zinc concentrates started in 2007. The concentrates were trucked to a storage and shipping facility in St. George’s and sold to smelters in North America and overseas.

- In 2014, Teck shipped approximately 16,000 tonnes of zinc and 13,000 tonnes of copper contained in concentrates; average employment was 323.

- Rehabilitation of this site is ongoing and is being done in accordance with the rehabilitation and closure plan accepted under the Mining Act.

- Teck forecasts 2016 employment to be 52 person years for work associated with rehabilitation and closure of the site. This forecast dwindles to 35 person years for 2017.
Barite Mud Services Inc.

Barite Mud Services – Tailings Pond with Barge

- Barite Mud Services Inc. (BMSI) is reprocessing tailings from ASARCO’s historic base metal mine in Buchans to recover barite.

- Approximately 40,000 to 50,000 tonnes per season will be mined to retrieve 10,000 -15,000 tonnes of barite.

- The company will operate from May to October annually and employ 27 people.

- BMSI is the fourth operator that has attempted to mine/process the Buchans tailings for barite.

- Barite is used in drilling mud for offshore oil development

- BMSI have an arrangement in place with Schlumberger to purchase all processed barite.
Hi - Point Industries (1991) Ltd.

Vacuum Harvester (top)
Peat Operation (bottom)

- Hi-Point is located in Bishop's Falls and extracts peat to produce the oil absorbent, "Oclansorb", and horticultural peat - mainly for export.

- The operation employs 10-20 people seasonally.

- Hi-Point has developed its Island Pond peat bog near the Gander Bay Highway for the production of additional horticultural peat.

- Forecast values for peat at this production are $1.4 million for 2015.
Trinity Resources Ltd.

Crushing and Screening Equipment (top)
Ore sorter (bottom)

- Trinity Resources Ltd. is a privately held company operating a pyrophyllite mine in Conception Bay South. The operation produces pyrophyllite powder and construction aggregate.

- Trinity Resources has its own deep water loading facility located within six kilometers of the mine. It can handle up to 25,000 tonnes of capacity for load out rate of 600 t/hr.

- The mine currently employs 18 people year round.

- In 2014, production was 1,800 tonnes of pyrophyllite powder and 6,400 tonnes of aggregate, valued at $605,000.
# Producing Mines – Key Stats

<table>
<thead>
<tr>
<th>Operator</th>
<th>Commodity</th>
<th>Location</th>
<th>Reserve Estimate (tonnes)</th>
<th>Processing/Production Capacity</th>
<th>Start Date</th>
<th>2015 Employment Forecast (Person Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vale Newfoundland and Labrador Limited</td>
<td>Nickel/Copper/Cobalt</td>
<td>Voisey's Bay</td>
<td>17,260,000</td>
<td>2,190,000 tonnes of ore/yr * Ni &amp; Cu concentrate with associated Co</td>
<td>2005</td>
<td>460</td>
</tr>
<tr>
<td></td>
<td>Finished Ni/Cu/Co</td>
<td>Long Harbour</td>
<td>N/A</td>
<td>50,000 tonnes/yr</td>
<td>2014</td>
<td>2710</td>
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<tr>
<td>Iron Ore Company of Canada</td>
<td>Iron Ore</td>
<td>Labrador City</td>
<td>1,410,000,000</td>
<td>23,300,000 tonnes/yr</td>
<td>1962</td>
<td>1776</td>
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<tr>
<td>Barite Mud Services</td>
<td>Barite</td>
<td>Buchans</td>
<td>4,067,225</td>
<td>10,000 – 15,000 tonnes/yr</td>
<td>2015</td>
<td>27-operating 12-construction</td>
</tr>
<tr>
<td>Teck Duck Pond Operations</td>
<td>Copper-Zinc-Gold</td>
<td>Millertown</td>
<td>Exhausted</td>
<td>In rehab and closure</td>
<td>2007</td>
<td>139</td>
</tr>
<tr>
<td>Tata Steel Minerals Canada Ltd.</td>
<td>Iron Ore</td>
<td>Elross Lake</td>
<td>83,200,000 (includes QC)</td>
<td>6,000,000 tonnes/yr (when fully operational)</td>
<td>2012/13</td>
<td>822</td>
</tr>
<tr>
<td>Anaconda Mining Inc.</td>
<td>Gold</td>
<td>Pine Cove</td>
<td>1,028,000</td>
<td>324,000 tonnes crude ore/yr *</td>
<td>2008</td>
<td>65</td>
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<tr>
<td>HI-Point Industries (1991) Ltd.</td>
<td>Peat</td>
<td>Bishop's Falls</td>
<td>N/A</td>
<td>N/A</td>
<td>1984</td>
<td>20</td>
</tr>
<tr>
<td>Atlantic Minerals Limited</td>
<td>Limestone / Dolomite</td>
<td>Lower Cove</td>
<td>19,650,000</td>
<td>2,010,000 tonnes in 2015</td>
<td>1996</td>
<td>127</td>
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<td>Rambler Metals and Mining Canada Limited</td>
<td>Copper/Gold/Silver</td>
<td>Baie Verte</td>
<td>1,509,000</td>
<td>234,000 tonnes of ore/yr * (Cu concentrate with associated Au/Ag)</td>
<td>2011</td>
<td>148</td>
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<td>Trinity Resources Ltd.</td>
<td>Pyrophyllite</td>
<td>Manuels</td>
<td>7,000,000</td>
<td>230,000 tonnes/yr (lump ore and powder)</td>
<td>1904</td>
<td>18</td>
</tr>
</tbody>
</table>

Sources: Department of Natural Resources and NRCan

* This is mill nameplate processing capacity.
  Actual metal production will fluctuate year to year due to grade variation.
Developing Projects - Labrador

1) Alderon Iron Ore Corporation
   Labrador West - (Kami) Project – Fe

2) Labec Century Iron Ore Inc.
   Joyce Lake – Fe

3) FerroQuartz Labrador Inc.
   Labrador City Area – Quartzite

4) Vale Newfoundland and Labrador Limited
   Voisey’s Bay Underground Mine – Ni- Cu- Co
Developing Projects - Newfoundland

1) Newspar
   St. Lawrence – Fluorspar

2) Canada Fluorspar (NL) Inc.
   St. Lawrence – Fluorspar
# Developing Properties*

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<thead>
<tr>
<th>Operator</th>
<th>Commodity</th>
<th>Location</th>
<th>Reserve/Resource Estimate (tonnes)</th>
<th>Production Capacity (tonnes/yr)</th>
<th>Start Date</th>
<th>2015 Employment Forecast (person years)</th>
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<tr>
<td>Newspar</td>
<td>Fluorspar</td>
<td>St. Lawrence</td>
<td>5,400,000</td>
<td>131,000</td>
<td>TBD</td>
<td>10</td>
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<td>Canada Fluorspar (NL) Inc.</td>
<td>Fluorspar</td>
<td>St. Lawrence</td>
<td>5,900,000</td>
<td>120,000</td>
<td>TBD</td>
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<td>FerroQuartz Labrador Inc.</td>
<td>Quartzite</td>
<td>Labrador City</td>
<td>2,270,000</td>
<td>500,000</td>
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<td>Labec Century Iron Ore</td>
<td>Iron Ore</td>
<td>Menihek</td>
<td>7,550,000</td>
<td>1.75 Million</td>
<td>N/A</td>
<td>N/A</td>
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<td>Vale Newfoundland and Labrador, Underground Mine</td>
<td>Ni, Cu, Co</td>
<td>Voisey's Bay</td>
<td>44,247,000 (Reid Brook and Eastern Deeps)</td>
<td>2.54 million</td>
<td>2016 Construction</td>
<td>0</td>
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<tr>
<td>Alderon Iron Ore Corp.</td>
<td>Iron Ore</td>
<td>Labrador City/Wabush</td>
<td>Measured/Indicated: 1.1 billion tonnes Inferred: 277.4 million tonnes</td>
<td>8,000,000 Up to 16,000,000</td>
<td>N/A</td>
<td>0</td>
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</table>

Sources: Department of Natural Resources and NRCan

* Developing properties are generally those which have reached the environmental assessment stage of their project.

Note: Tata Steel Taconite Project, Alderon Kami Project, and Labec Century Joyce Lake have highly uncertain timelines due to challenging conditions.

N/A - not available; TBD – To Be Determined
## Inactive Mines

<table>
<thead>
<tr>
<th>Operator</th>
<th>Commodity</th>
<th>Location</th>
<th>Reserve Estimate (tonnes)</th>
<th>Average Annual Production Capacity</th>
<th>Start Date</th>
<th>End Date</th>
<th>2015 Employment Forecast (person years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wabush Mines (Closed)</td>
<td>Iron Ore</td>
<td>Wabush</td>
<td>N/A</td>
<td>5,000,000 tonnes/yr</td>
<td>1965</td>
<td>2014</td>
<td>6</td>
</tr>
<tr>
<td>Hurley Slate Works Company Inc.</td>
<td>Slate</td>
<td>Burgoyne's Cove</td>
<td>N/A</td>
<td>N/A</td>
<td>1986</td>
<td>2010</td>
<td>1</td>
</tr>
<tr>
<td>Galen Gypsum Mines Limited</td>
<td>Gypsum</td>
<td>St. George's</td>
<td>N/A</td>
<td>N/A</td>
<td>1999</td>
<td>2009</td>
<td>0</td>
</tr>
<tr>
<td>Labrador Iron Mines Ltd.</td>
<td>Iron Ore</td>
<td>Menihek</td>
<td>54,800,000 (NI 43-101 Resource)</td>
<td>2,500,000 tonnes/yr (Idled for 2014 and 2015)</td>
<td>2011</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>Beaver Brook Antimony Mine Inc.</td>
<td>Antimony</td>
<td>Glenwood</td>
<td>N/A</td>
<td>164,000 tonnes ore per year (Sb concentrate)</td>
<td>2008</td>
<td>2012</td>
<td>10</td>
</tr>
</tbody>
</table>

Sources: Department of Natural Resources and NRCan

N/A - not available
Exempt Mineral Land - Labrador

1) Julienne Lake Iron Ore Property
   - Exempt Mineral Land - Government of NL
   - Government of Newfoundland and Labrador in negotiations with Julienne Lake Alliance (Altius Minerals)
Stages of mineral exploration

1. Early stage exploration (e.g. prospecting)

2. Advanced exploration (e.g. diamond drilling, trenching)

3. Deposit definition, resource estimation*

4. Economic and feasibility studies

5. Environmental assessment and mine permitting

6. Operating mine

* resource estimates presented here combine measured, indicated, and inferred categories
Active projects 2015

Some active exploration in Labrador west, however resource definition associated with mining or pre-mining stages (not addressed here)
Active projects 2015

Equitas Resources
Garland project
(nickel, copper, cobalt)

- Exploring for similar deposits as at Voisey's Bay
- Deep geophysical survey identified multiple new targets
- New geological ideas guiding renewed exploration
- Diamond drilling in 2015
Paladin (Aurora) Energy
Michelin project
(uranium)

- Exploration ongoing since 2006
- Diamond drilling in 2014, geophysical surveys and soil sampling in 2015
- Multiple deposits
- Michelin deposit resource estimate: 107 M lbs U3O8
- Current U3O8 price: $36 / lb
Active projects 2015

Search Minerals
Port Hope Simpson project
(rare earth elements [REE])

- Exploration ongoing since 2010
- Multiple REE prospects discovered
- Marketed as critical rare earth elements [CREE] (neodymium, europium, terbium, dysprosium, yttrium)
- Foxtrot deposit resource estimate: 14.4 M tonnes REE ore
- Awarded R&D funding in 2015 towards pilot plant for Foxtrot deposit ore, conceptual study for processing facility in Labrador
- Good road access
Active projects 2015

Anaconda Mining Point Rousse project (gold)

- Multiple gold deposits and prospects near Pine Cove mine and mill
- Corporate plan is to continue exploration and resource definition, feed new deposits to the mill, extend the life of the operation
- Diamond drilling, trenching, bulk sampling in 2014-2015
- Pine Cove deposit resource + reserve estimate: 129,050 oz gold
- Stog’er Tight deposit resource estimate: 50,000 oz gold
Active projects 2015

Minco Buchans project (zinc, lead, copper, silver, gold)

- Lundberg deposit underlies former Buchans mine site
- Additional targets besides, including deeper targets
- Diamond drilling in 2015, extensive re-logging of archived core in 2015 (at DNR’s Buchans Core Storage Facility)
- Lundberg deposit resource estimate: 27,750,000 tonnes of ore with 1.4% zinc, 0.6% Pb, 0.3% Cu
Active projects 2015

Canadian Zinc
South Tally Pond project
(zinc, lead, copper, silver, gold)

- Diamond drilling in 2014
- Additional targets besides Lemarchant deposit
- Lemarchant deposit resource estimate: 2,580,000 tonnes of ore with 4-5% zinc, 1% Pb, 0.5% Cu, good silver and gold values
- Road access to Millertown
- One of several active Canadian Zinc projects in area
Active projects 2015

Marathon Gold
Valentine Lake project (gold)

- Exploration ongoing since 2009
- Diamond drilling, trenching in 2015
- Steady progression of new discoveries, resource increases
- Several deposits, numerous prospects
- Combined resource estimate of Leprechaun, Sprite, Marathon, and Victory deposits: 1,260,000 oz gold
- Road access to Millertown
Active projects 2015

Benton Resources
Cape Ray project (gold)

- Trenching in 2015, diamond drilling in 2014
- Combined resource estimate of 04, 41, 51, and Windowglass Hill deposits: 435,000 oz gold
- Joint Venture with Nordmin Engineering signed in 2014 (covers four deposits mentioned above)
- Nordmin to fund up to production decision
- Road access to Port Aux Basques
Active projects 2015

Puddle Pond Resources Heritage project (gold-silver)

- Newly discovered by prospectors in 2011
- Ongoing exploration since 2012, including diamond drilling and extensive trenching
- Diamond drilling in 2015
- Puddle Pond Resources is a private company based in Newfoundland
Active projects 2015 (others)

Muskrat Minerals
Grand River Ironsands project (iron for making pig iron)
- company investing in other exploration projects in province during iron price slump

Altius Resources
Natashquan project (platinum group elements, copper, cobalt)
- diamond drilling in 2014

Red Moon Potash
Captain Cook project (salt, potash)
- resource estimate study initiated late 2015

Benton Resources
Staghorn project (gold)
- diamond drilling in late 2015

Altius Resources
Moosehead project (gold)
- trenching in 2015

Canadian Zinc
Tulks South, Long Lake, Lake Douglas projects (zinc, lead, copper)
- diamond drilling in 2014

New Dawn Resources
Butlers Pond project (copper, gold)
- trenching in 2015
Newfoundland Labrador

Commodity Prices - Minerals
Copper (Cu)

- Copper is produced at Vale’s Voisey’s Bay mine, Rambler’s Ming Mine and previously at Teck’s Duck Pond Mine.
- Copper is used as a thermal and electrical conductor.
- Soft global demand is putting downward pressure on the price of copper.
- Expectations of tighter supply in the market have calmed the slide in copper prices.
- Copper price forecast (US$/lb):
  - 2016 - $2.50
  - 2018 - $2.82
  - Long-term - $3.26
Nickel (Ni)

- Nickel is produced at Vale’s Voisey’s Bay Mine.
- Nickel is mainly used in the production of stainless steel and is also used in industrial and decorative coatings.
- Nickel price remains low and has been since beginning of 2015.
- Producers are under pressure to implement operational cost controls, including Vale.
- Many nickel producers are currently operating with costs greater than the nickel market price, Voisey’s Bay is below the market price.
- Due to a ban on nickel exports in Indonesia, Chinese stocks of nickel pig iron are being depleted. However, China has invested in smelting and processing plants within Indonesia and this may lessen demand.
- No global projects are expected to come online until 2017.
- Nickel price forecast (US$/lb):
  - 2016 - $5.69
  - 2018 - $7.71
  - Long-term - $9.61
Iron Ore (Fe)

- Iron ore is produced at IOC and Tata Steel.
- Iron is primarily used in production of steel.
- New iron ore supply has been added through low cost/high volume projects from Australian and Brazilian based producers.
- China's slowing economy has reduced the rate of demand growth for iron ore.
- The current oversupply market condition is forecasted to remain in 2016.
- The government of India has imposed a 20% duty on foreign steel to protect domestic producers from the huge influx of cheap Chinese and Russian imports.
- Iron ore price forecast (US$/mt):
  - 2016 - $51.58
  - 2018 - $58.60
  - Long-term - $72.43
Gold (Au)

- Gold is produced at Anaconda's Pine Cove Mine. It is a by-product at Rambler's Ming Mine and the formerly producing Duck Pond Mine.

- Gold is used for its malleable, conductive and thermal properties. It is used as jewelry and for investment (i.e. protection against market volatility).

- Speculation regarding a looming US rate hike has kept the US dollar strong and limited demand for gold, but a delay in this decision may allow prices to strengthen.

- Some seasonal price increases are expected from festivals in China and India in October that increase demand.

- Gold price forecast (US$/oz.):
  - 2016 - $1,141
  - 2018 - $1,240
  - Long-term - $1,288
Zinc (Zn)

- Zinc was produced at the now closed Teck Duck Pond Operations Mine.
- Zinc is used for its lightweight properties in galvanized steel.
- Zinc prices were up in May, but plunged again in September amid soaring inventories and weaker growth in China.
- Supply cutbacks could support prices as demand from Chinese investment and construction projects ease.
- A price surge of 10% was experienced on October 9. It is believed to be a direct effect of Glencore’s decision to slash zinc production by 500,000 tonnes (around 4% of global supply).
- Zinc price forecast (US$/lb):
  - 2016 - $0.92
  - 2018 - $1.12
  - Long-term - $1.20
**Forecast from Consensus Economics Inc.**

### Forecast - Issued Oct 2015

<table>
<thead>
<tr>
<th>US$ / unit</th>
<th>11/12/2015</th>
<th>2016</th>
<th>2018</th>
<th>Long Term 2021-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper</td>
<td>lb</td>
<td>2.21</td>
<td>2.50</td>
<td>2.82</td>
</tr>
<tr>
<td>Nickel</td>
<td>lb</td>
<td>4.25</td>
<td>5.69</td>
<td>7.71</td>
</tr>
<tr>
<td>Zinc</td>
<td>lb</td>
<td>0.71</td>
<td>0.92</td>
<td>1.12</td>
</tr>
<tr>
<td>Cobalt</td>
<td>lb</td>
<td>11.14</td>
<td>13.72</td>
<td>14.05</td>
</tr>
<tr>
<td>Gold</td>
<td>ozt</td>
<td>1080.8</td>
<td>1,141.00</td>
<td>1,241.00</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>mt</td>
<td>47.63</td>
<td>51.58</td>
<td>58.60</td>
</tr>
<tr>
<td>Uranium*</td>
<td>lb</td>
<td>36</td>
<td>43.33</td>
<td>53.85</td>
</tr>
<tr>
<td>$CAD/$US</td>
<td></td>
<td>1.3282</td>
<td>1.3340</td>
<td>1.2320</td>
</tr>
</tbody>
</table>

*Uranium is not currently produced in province but uranium prices affect viability of advanced exploration projects*

Energy and Metals Consensus Forecasts surveys more than 40 energy and metals analysts every other month for a range of commodity forecasts.
Information Note  
Natural Resources

Title: Overview of the aggregate industry and quarry management

Issue: The provincial aggregate industry, quarry management, legislation and regulation.

Background and Current Status:
- Quarry materials (aggregate) include sand, gravel, rock, clay and soil in their natural state used in the construction or agricultural industries.

- The vast majority of the quarry materials produced in Newfoundland and Labrador are mineral aggregates such as sand, gravel, crushed stone and blasted rock. In some cases the materials are unconsolidated surficial materials and in other cases bedrock materials are extracted and processed.

- In order to obtain the right to remove quarry materials from either Crown or private land, a Quarry Permit or a Quarry Lease is required. These Permits and Leases are issued under the authority of the *Quarry Materials Act, SNL 1998* and the *Quarry Materials Regulations* enacted under that Act. Leases are also subject to provisions of the *Mining Act, SNL 1999*.

- Quarry Permits are short term authorizations, issued for a maximum of 12 months. Currently all expire at the end of December each year. These permits do not convey to the holder an exclusive right to the resource, they only provide access rights.

- Quarry Leases may be issued to operators who can demonstrate a continuous long-term need for quarry materials. They convey the exclusive right to the quarry materials and require a legal survey as well as development and rehabilitation plans, which are to be updated at least once every five years. Security deposits to provide for restoration and rehabilitation of the leased area are required for all leases.

- Some of the materials are used as fill and ballast for construction while others are used in the production of asphalt and concrete. The characteristics of the aggregates, as well as associated materials, determine their suitability for these purposes. Not all materials are suitable for all purposes and many operators maintain several quarries in order to ensure access to the required materials.

- Quarry materials are a high volume – low value product and transportation adds significantly to the final cost of the product delivered to the site where it is used.

- Quantities of aggregates produced in the province for domestic use are directly related to the level of construction activity. Road construction and redevelopment, as well as the construction of commercial and residential buildings are the principal uses of the aggregates.
• In 2014, approximately 3.2 million tonnes of quarry materials were produced from 82 quarry leases and 2,050 quarry permits issued throughout the province. This has an estimated sales value of around $50 million.

• Royalties on production of quarry materials ensures that the Province receives some value from an important non-renewable resource. The royalty also helps to ensure resources are managed prudently in that quarry operators will not remove more material than is necessary.

• Quarry operators are required to submit annual returns documenting the amount of production from each quarry permit or lease and pay royalties based on the amount of production reported.

• The current royalty of $0.75/cubic metre generates on average royalties of approximately $4 million annually. Revenue generated by the royalty on quarry materials fluctuates from year to year depending on production levels in the province. The amount of production in any given year is driven by the amount of activity in the construction sector.

• The high demand for aggregate in the NE Avalon, combined with high intensity of land use means there is a shortage of land that can be developed for aggregate extraction. The main area for quarry development is the Harbour Arterial Quarry Management Area (HAQMA; located at the intersection of the Trans Canada Highway and the CBS by-pass). Quarry rights in the area are in high demand, with several companies expressing interest in acquiring leases in the area if any became available. Leases can be sold, and 5 hectare leases fetch prices in excess of $500,000.

Analysis:
- Given the volume and geographical distribution of quarry operations in the province, they generate a significant number of complaints. Complaints are related to a wide range of issues including heavy equipment passing through communities, visual impact, lack of rehabilitation, dust, noise, delays in issuing permits, beach removal, and illegal quarrying.

Action being taken
- A new Quarry Management System is being developed that will allow users to input and pay royalties online via a credit card. This will substantially reduce the operational burden on staff in the Quarry Rights Section. This new system will also aid in inspections and other aspects of the management of quarry materials in the province.

Prepared by: K. Sheppard/D. Liverman
**Title:** Orphaned and Abandoned Mines

**Issue:** To provide background information on Orphaned and Abandoned Mines

**Background and Current Status:**
- Orphaned and Abandoned Mines (OAMs) are mine properties for which an owner cannot be identified or whose owner is unable or unwilling to carry out the necessary rehabilitation work. OAMs have environmental, health, safety and economic implications for communities, the mining industry and provinces across Canada, including NL.

- Mining Watch Canada estimates that there are more than 10,000 OAMs in Canada. Mines Branch of NR is mandated with the responsibility for monitoring, maintaining and rehabilitating the approximately 67 OAMs in the province.

- OAMs range from advanced exploration sites to former major producers. Many OAMs are historic mines that had very limited production and a relatively small footprint. Major OAMS include the former Hope Brook gold mine in SW Newfoundland, the Buchans mine site, the Advocate asbestos mine in Baie Verte and the former Rambler mine on the Baie Verte Peninsula.

- The former Hope Brook gold mine was rehabilitated during 1999-2004 at a cost to Government of $19 million. The demolition of site infrastructure at the former Consolidated Rambler, Advocate and Whalesback mines was completed at a cost to government of $2.0 million, $4.6 million and $200,000, respectively. This work significantly reduced the health and safety liabilities associated with these sites; however environmental liabilities remain.

- Mines opened since 1999 operate under the Mining Act and must provide rehabilitation and closure plans, together with sufficient financial assurance to cover the costs of rehabilitation by the Crown if required. This means that if any mine that has opened since 1999 is abandoned, government has funds in place to complete rehabilitation.

- Budget 2014 provided funding to ENVC to support the design of a program to record government liabilities for impacted sites (Impacted Site Liability Assessment Program; ISLAP). OAMs were included in this program.

- Most operating mines in the province have tailings facilities. Tailings are fine waste rock material remaining after ore processing. They can contain metals found in the ore and other material that may cause an environmental hazard.

- Tailings dams are built to contain tailings from mining activities. Tailings facilities at OAMs are a safety and environmental liability for Government and are NR's responsibility.

- The following incidents highlight the potential impact of dam failures.
On December 17, 2012, there was a failure of the Gullbridge tailings dam while repairs to the structure were underway. Gullbridge is an OAM located in central Newfoundland. Approximately 500 m³ of tailings solids and 100,000 m³ of impoundment water were released and flowed into South Brook. No one was injured in the incident and there was no measurable impact on the Town of South Brook’s water supply. The repair cost for the Gullbridge dam was in excess of $2 million.

Failure of major tailings dams at two operating mines occurred in the last two years: in August 2014 at the Mount Polley Mine in British Columbia and in November 2015 at the Germano mine, owned by BHP and Vale, in south-eastern Brazil. These failures resulted in millions of cubic metres of tailings and impoundment water being released with an estimated remediation liability in the billions of dollars. The Brazil incident resulted in loss of life.

**Analysis:**

- As part of NR’s efforts to ensure the safe impoundment of tailings at OAM sites, Government initiated a programme in 2010 to assess the stability of OAM tailings dams, and to rehabilitate dams as required to meet Canadian Dam Association (CDA) guidelines. Tailings dams were assessed at six sites and dam repair work was conducted at three (Gullbridge and Buchans mine sites; Hope Brook dams were repaired in 2002).

**Action Being Taken:**

- NR staff will continue to monitor OAM dams for changes in the dam structures to mitigate their risk. NR staff will continue to monitor OAMs sites to assess environmental as well as safety concerns.

**Prepared/approved by:** A. Steel/A. Smith/D Liverman
Information Note
Department of Natural Resources

Title: Overview of the Mineral Incentive Programme

Issue: To provide background information on provincial financial assistance available to the minerals industry.

Background and Current Status:
- The Mineral Incentive Program (MIP) has provided financial support to mineral exploration companies and prospectors since 1999 in order to attract minerals investment and defer some of the risk associated with exploration.

- The MIP is composed of the Junior Exploration Assistance programme (JEA), and the Prospectors Assistance programme (PAP).

- The 2015-16 MIP budget is $1.6 million: $1.2 million for JEA; $350,000 for PAP and $50,000 for other measures supporting prospectors in the province including an operating grant for the Matty Mitchell Prospectors Resource Room (housed in the Natural Resources Building, and jointly funded with Mining Industry NL). The budget reached a maximum of $2.9 million in 2010-11.

- Maximum grant amounts for exploration companies are $100,000 for the Island and $150,000 for Labrador (on a 50-50 cost-shared basis). Maximum grant amounts for prospectors is $6,000 however, up to $12,000 may be available for advanced prospects and an additional $6,000 is available for air support to remote properties. There is no requirement for matching funds for the PAP.

- The MIP has offered an annual two-week prospecting school since 1990 in partnership with the College of the North Atlantic. More than 480 people have completed this course. The course did not take place in 2015 due to low enrollment.

- Since 1999, 363 JEA grants have been paid out totaling $28.8 million. This has leveraged over $181 million in total project spending (1:6.4). Since 1999, 1,172 prospector grants have been completed and over $3.9 million have been paid out.

- New Brunswick, Nova Scotia, Ontario, Manitoba, Yukon Territory, Nunavut and the Northwest Territories also have mineral exploration and/or prospector grant programmes. Quebec, Saskatchewan and British Columbia incentivize exploration with the use of tax credits.

- The MIP was independently reviewed by Dr. Wade Locke in 2004. The key finding of the Locke report was that the programme has been important in establishing viable exploration targets and moving them towards development.
• The PAP programme was reviewed by the Office of the Auditor General in 2001. The JEA programme was reviewed by the OAG in 2011 with follow-up in 2014. The majority of the recommendations made by the OAG have been addressed.

• Since 2011, several initiatives have been implemented to make the JEA programme more accessible, reduce red tape and address recommendations from the OAG:
  o paper applications have been replaced with electronic applications
  o in-person submission of applications replaced with e-mail submission
  o first-come-first-served basis replaced with proportional support to all eligible applicants
  o level of support increased from 50/50 to 75/25 for greenfields projects
  o small-scale mining companies made eligible for support of greenfields projects
  o application process replaced with rebate programme

Analysis:
• Government policy has the proven ability to attract exploration investment, and to increase exploration effectiveness. Appropriate government investment may assist in sustaining mineral exploration in the province, and in the long-term will contribute to economic development in rural parts of the province.

• Anecdotal reports from exploration companies and the Fraser Institute Survey state that the JEA program is a key factor in corporate decisions to invest in Newfoundland and Labrador.

Action Being Taken:
• NR will continue to administer the MIP in accordance with the standards outlined by the OAG.

Prepared/approved by: J. Clarke/A. Smith/D. Liverman
Current NL Electricity System

- NL electricity system has 7,459 MW of generating capacity with two distinct interconnected systems:
  - Island (IIS) – 1,999 MW (plus 100.7 MW curtailable power from NLH customers)
  - Labrador (LIS) – 5,460 MW (includes 32 MW from diesel plants and 5,428 MW from Churchill Falls generating station – with 525 MW recall power available to LIS)

- Isolated systems: 21 diesel systems owned/operated by NLH – 6 on Island, 15 in Labrador (total installed capacity 35.8 MW)
  - Ramea system includes a Wind-Hydrogen-Diesel Pilot Project
  - Natuashish diesel system owned by Innu and Fed Govt; NLH provides operations and maintenance
  - Menihek Hydro owned/operated by Nalcor; sells power to HQ for Shefferville region
NL Electric Utilities

- NP and NLH provided service to 300,843 residential, street lighting, commercial and industrial customers in 2014
- Generating capacity includes hydroelectric, residual oil-fired, combustion turbines, wind, biomass and diesel
- Serve three broad categories of customers:
  - domestic (residential)
  - general service (small, medium and large commercial and institutional)
  - industrial
- NLH is the sole service provider in Labrador
Nalcor Energy

- Nalcor’s lines of business related to electricity include:
  - Newfoundland and Labrador Hydro (regulated)
  - Lower Churchill (Musk Rat Falls and Gull Island)
  - Churchill Falls (CFLCo is co-owned by NLH and Hydro Quebec at 65.8% and 34.2%, respectively)
  - Nalcor Energy Marketing (exports)
  - Other operations include Ramea, Menihek and Exploits Generation
Nalcor Leadership

Board of Directors (Nalcor and NLH)

- Ken Marshall – Chairperson
- Leo Abbass – Corporate Director
- Ed Martin – President & CEO
- Gerald Shortall – Chartered Accountant, Corporate Director
- Tom Clift – Professor, Memorial University

Board of Directors (Churchill Falls)

- Ken Marshall – Chairperson
- Marie-Jose Nadeau – Executive VP Corporate Affairs and Secretary General, Hydro Quebec
- Richard Cacchione – President, Hydro Quebec Production
- Bob Warr – Managing Director, Nor-Lab Limited
- Gerald Shortall, Chartered Accountant, Corporate Director
- Ed Martin, President & CEO
- Jim Keating, Vice President, Nalcor Oil and Gas
Newfoundland and Labrador Hydro

- Crown corporation and regulated utility focused primarily generation and transmission with distribution to some Island rural customers and NL isolated diesel communities. Generates 80% of electricity consumed by IIS customers

- NLH’s regulated operations consist of sales to 3 primary groups:
  - NP, which serves vast majority of customers on the Island (82.4% of NLH revenue)
  - 39,750 residential and commercial customers in rural NL (14.6% of NLH revenue)
  - Industrial customers (ie. pulp and paper, mining, refining) (3% of NLH revenue)

- NLH’s operations include:
  - 9 hydroelectric plants (958.8 MW)
  - One oil-fired steam plant (Holyrood)(490 MW)
  - 4 gas turbines (250.5 MW)
  - 25 diesel plants (54 MW)
  - 3,743 km of transmission lines and 3,434 km of distribution lines
NLH Leadership Team

- John MacIsaac
  President

- Derrick Sturge
  Chief Financial Officer and Vice President, Finance

- Michael Roberts
  Vice President, Human Resources and Organizational Effectiveness

- Paul Humphries
  Vice President, System Planning

- Dawn Dalley
  Vice-President, Corporate Relations and Customer Service

- Scott Crosbie
  Chief Operating Officer
Newfoundland Power

- Fortis subsidiary and regulated utility focused primarily distribution service with some transmission and generation
- Serves 261,093 residential and commercial customers on the Island system and provides service to three categories: domestic, general service, and street and area lighting
- Owns and operates, in coordination with NLH, 2,100 km of transmission lines on the IIS
- Purchases 93% of its power requirements from NLH
- NP-owned generation provides 139 MW of capacity
- 70% of NP's generation is hydroelectric, representing 96.2 MW
Newfoundland Power Leadership

Executive Team

- Gary Smith, President and Chief Executive Officer
- Jocelyn Perry, Chief Financial Officer and Vice President, Finance
- Peter Alteen, Vice President, Regulation and Planning
- Gary Murray, Vice President, Engineering and Operations

Board of Directors

- Jo Mark Zurel (Chair), President, Stonebridge Capital Inc.
- Ken Bennett, President, Johnson Incorporated
- Phonse Delaney, President and CEO, Fortis Alberta
- Richard Hew, President and CEO, Caribbean Utilities Company, Ltd.
- Susan Hollett, President, Hollett & Sons Inc.
- Earl Ludlow, Executive Vice President Eastern Canadian & Caribbean Operations, Fortis Inc.
- Michelle Melendy, President, MiBar Holdings Ltd.
- Edward Murphy, Senior Vice President, Finance, Pennecon Ltd.
- Gary Smith, President and CEO, Newfoundland Power Inc.
- Anne Whelan, President and CEO, Seafair Capital Inc.
Non-Utility Generators (NUGs)

- NLH also purchases power from the following:
  - Corner Brook Pulp and Paper (15 MW biomass unit)
  - Wind farms at St. Lawrence and Fermeuse (27 MW each)
  - Exploits (up to 95.6 MW) and Star Lake (18 MW)
  - Rattle Brook (4 MW hydroelectric unit)

- NLH also has a capacity assistance agreement with Vale which provides 10.8 MW and one with Corner Brook Pulp and Paper that provides up to 80 MW
Public Utilities Board (PUB)

- An independent, quasi-judicial regulatory body

- *EPCA* states electricity must be lowest possible cost consistent with reliable service, not priced unjustly or unreasonably, and managed to ensure most efficient production, transmission and distribution of power.

- PUB Commissioners report to Minister of Justice and Public Safety. Appointed by the LGIC for 10 year term with possibility of second 10 year term. Cease to hold office at age 70 unless otherwise directed by LGIC.
  - Chairperson: Andy Wells- appointed March 2008
  - Vice Chairperson: Darlene Whalen- appointed May 2000
  - Commissioner: Dwanda Newman- appointed April 2008
  - Commissioner: James Oxford- appointed August 2009

- Funded by assessments of the industries it regulates

- Provides oversight on: electricity, petroleum products, auto insurance, motor carrier industry, and expropriation

- Regulatory activities include rate setting and capital budget applications, compliance reporting, issuance of decisions and orders, managing complaints, responding to inquiries, and conducting hearings

- Conducts investigations into particular matters or concerns relating to service quality and activities initiated by Government
Governing Legislation - Electricity Sector

PUB’s jurisdiction is defined by the following legislation:

- **Electrical Power Control Act, 1994**
  - Sets out power policy and gives authority to the PUB to implement
  - PUB has authority and responsibility to ensure adequate planning occurs for future production, transmission and distribution of power in province
  - LGIC retains the right to direct the PUB on rates policy and procedures, issue exemptions for a public utility under the Act and refer matters to the PUB relating to rates and other issues

- **Public Utilities Act, R.S.N 1990**
  - Defines general powers of PUB regarding its oversight of public utilities
  - Includes approval of electricity rates and costs to be recovered in rates, approval of capital budgets, holding hearings and conducting investigations, hearing applications and complaints, issuing orders, and ensuring adequate provision of electricity service and compliance
Electricity Rates and Rate Setting

- PUB sets rates by balancing the principles of lowest cost power with system reliability.
- PUB uses cost-of-service regulation to establish rates which reflect the utilities’ cost of owning, operating and maintaining facilities.
- PUB sets rates through a General Rate Application submitted by utilities for approval.
- Rates are based on fuel costs, capital investments and overall cost of operations.
- Between GRAs, rates are subject to annual Rate Stabilization Plan adjustments, which accounts for variances in forecasted vs actual costs.
- Customers' electricity rates are based on:
  - System they are served by (IIS, LIS, or rural isolated off-grid)
  - User group (e.g. domestic, general service, industrial, govt, street/area lighting)
  - Level of electricity consumption (i.e. peak and annual consumption)
- Ratepayer and government subsidies lower the rates that some consumers actually pay.
Current Subsidies

- Rural Deficit Subsidy - Offsets the cost of electricity for domestic and GS customers in NLH’s Island interconnected rural system and all NL isolated diesel systems. NP and Labrador interconnected domestic and GS customer rates fund the subsidy which cost $41M in 2007 and increased to an estimated $64M by 2014.

- Northern Strategic Plan Subsidy - Provided to Labrador isolated residential and L’Anse au Loup residential customers. Customers provided with LIS electricity rates on their first basic block of power. Taxpayers will pay an estimated $2.5M for subsidy in 2015/16.

- 2007 Rate Increase Deferral Subsidy - Defers an electricity rate increase for residential and commercial isolated diesel customers (Island and Labrador), which was supposed to have taken effect in 2007. Government provides $400,000 annually for subsidy. Presently, it has only been extended until December 31, 2015.

- Home Heating Rebate - Government provides a taxpayer-funded maximum rebate of $500 in coastal Labrador, with ~ $260K to Coastal Labrador residents in 2012.
NLH General Rate Application

- NLH's present base electricity rates last set in 2007 following GRA
- NLH filed a GRA in 2013 and refiled in November 2014 to include cost changes including the combustion turbine at Holyrood, additional supply costs incurred during January 2014 power outages, and lower fuel efficiency Holyrood
- The GRA requests rate increases for the various systems serviced
- On January 28, 2015, NLH submitted an interim rates application. PUB denied it in May 2015 but ordered other changes to provide interim rates effective July 1, 2015
- The GRA process includes public hearings, requests for information from the PUB and interveners, as well as expert witness submissions. The amended GRA hearing began on September 9, 2015 and will likely conclude in November.
- The GRA seeks a rate of return on equity of 8.8%, same as NP. The current ROE, set in the 2006 GRA, is 4.465%.
- NLH expects PUB to issue GRA around March/April 2016 with rates to take effect by July 2016
## NLH General Rate Application - Average Proposed Rate Change

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

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

** These rate impacts factor in Government's NSP subsidy provided to domestic customers of L'Anse au Loup and Labrador Isolated Diesel Systems.
NP General Rate Application

- NP filed its GRA with PUB on October 16, 2015 to cover 2016-17 period and proposes rate increases averaging 3.1% effective July 1, 2016
- Last GRA was filed in September 2012
- NP’s greatest costs are power purchases from NLH
- NLH’s GRA sets the “wholesale” rate that NLH charges to NP. This is the rate that NP also uses to complete its own GRA to set retail rates for customers
- NP requesting ROE of 9.5% from 8.8% currently
- NP contends that medium to long-term uncertainties around MFP present financial risks that support its ROE request
- NP advises that PUB hearing is anticipated in Spring 2016 with a decision by late Spring/early Summer
Biogas

- Biogas is a combustible gas created by landfills and farms through the anaerobic (i.e. without oxygen) decomposition of organic material. Biogas generators burn the methane gas found in biogas to create heat which is used to turn a turbine and generate electricity.

- On September 2, 2014, NR announced Biogas Electricity Generation Pilot Program, administered through NLH with an aggregate cap of 5 MW.

- Interested proponents: Robin Hood Bay and New World Dairy.

- NLH currently negotiating PPA with NWD. PPAs extend one year past Muskrat when pilot program will be evaluated.
Net Metering

- Net metering allows customers to generate power from small scale renewable sources for their own use and supply surplus power to the utility when they generate excess power and draw power from the grid when their generation does not fully meet their needs.

- NR worked closely with NLH and NP to develop a net metering policy framework, which was released on July 28, 2015 with an aggregate cap of 5 MW.

- Framework provides policy parameters for utilities and PUB to develop and implement net metering programs.

- Utilities currently working on their applications to the PUB.
Coastal Labrador Alternative Energy

- The provincial government has provided $3.5M to NLH since 2008 to determine if alternative energy sources, including wind and hydro, can power coastal Labrador more economically than diesel generation
  - Wind – a wind monitoring program began in 2013 and a final report is expected by the end of 2015
  - Small hydro – Hatch completed an engineering study for NLH that found some southern coastal Labrador hydro sites have long-term economic potential for development
- NLH is incorporating study results into its generation plans for the region and hydraulic data collection will continue into 2016
- In 2014, NLH completed internal desktop-level estimate on the cost of interconnecting the LIS with the diesel communities on the north and south coasts of Labrador - estimated to cost ~$1.3B and $0.8B respectively, which do not appear to be cost-effective options
Muskrat Falls Project

- MF Project sanctioned in December 2012
- Includes 824 MW generating facility and links to the North American grid through the Labrador-Island Link (LIL) and the Maritime Link
- Power available from LIL in 2017, and from MF generation in 2018
- Benefits of the Project to NL Electricity Sector:
  - Meeting the long-term electricity needs of NL and stability for electricity rates
  - NL’s electricity mix 98 per cent renewable
  - Eliminating Holyrood thermal generation
  - Improving NL electric system reliability
  - Providing a transmission route to export surplus power
Review of the NL Electricity System

- Power Advisory conducted review of NL’s electricity system – released October 2015
- Provided government with expert advice to ensure system has the optimal structure, management and regulatory processes in place
- NR and Nalcor working together to transition the NL electricity system to North American integration
- Maximizing value of NL electricity exports will require some changes to the industry that require Government approval
Newfoundland Labrador

Nalcor Energy
Corporate Overview
Corporate Highlights

- Activities include:
  - Development, generation, transmission and sale of electricity
  - Exploration, development, production and sale of oil and gas
  - Industrial fabrication
  - Energy marketing

- Selected financial results:
  - Revenue $796.1M in 2014; $592.5M January – September 2015
  - Capital Expenditures $2.0B in 2014; $2.0B January – September 2015

- New $291.7M, 188km, 230kV transmission line from Bay d’Espoir to the Avalon approved by the PUB in December 2014 to be completed in 2018
Nalcor – Lines of Business

Vision is to build a strong economic future for successive generations of Newfoundlanders and Labradorians.
Newfoundland and Labrador Hydro

- Primary generator in NL - established as Power Commission in 1954 and incorporated in 1975.

- Installed generating capacity 1,626 MW:
  - 9 hydro stations (939 MW)
  - Holyrood (490 MW)
  - 4 gas turbines (142 MW)
  - 25 diesel plants (55 MW)

- Three main customer groups in over 200 communities:
  - Newfoundland Power (NLH supplies 93% of NP’s energy requirements)
  - Industrial (pulp & paper, mining, refining)
  - Residential & Rural (38,000 customers)
Churchill Falls

- 11 turbines with rated capacity of 5,428 MW.
- 2nd largest underground powerhouse in the world.
- Largest hydro facility in Atlantic Canada.
- Majority of power sold to Hydro-Quebec to 2041.
- Recall power used in Labrador and sold in export markets in northeast.
- Revenues of $72.9M and capital expenditures of $33.0M in 2014
Oil and Gas

- Holds and manages oil and gas interests on behalf of the province.
- Equity stakes in three offshore oil projects
  - White Rose (5%), Hebron (4.9%), Hibernia Southern Extension (10%)
- Significant investing in a TGS/PGS regional 2D seismic program
  - One of the largest data programs globally (over 100,000 line km by end 2015)
  - In October 2015, announced in-place resource potential in Flemish Pass: 12 billion barrels of oil and 113 tcf of natural gas
- Production of 661,000 bbls of oil with sales of $64.1M in 2014
Lower Churchill

- Project includes:
  - Muskrat Falls Generation – 824 MW
  - Labrador-Island Transmission Link – 900 MW capacity; 1,100 km long; 60m wide; 4500 towers; and designed to withstand 180 km/h winds
  - Maritime Transmission Link – 500 MW capacity, 180km subsea transmission under Cabot Strait

- Transmission and generation scheduled to enter service in 2017 and 2018, respectively
Bull Arm Fabrication

- Atlantic Canada’s largest industrial fabrication site serving eastern Canada and western Europe.
- Leased until 2017 by ExxonMobil for the Hebron project.
- Revenues of $17.8M in 2014, and $15.1M from January-September 2015.
Energy Marketing

- Energy trading and marketing operations fully in-house in 2015.
- Revenues currently derived mostly from sales of available recall energy – will add surplus Muskrat Energy, transmission through Maritimes and multi-year hydroelectric storage capacity
- Revenues of $74.1M in 2014 and $75.6M January – September 2015
Corporate and Other Activities

- Corporate support functions
- Business development activities
- Development projects that have not yet proceeded to sanction such as Gull Island
- Wind-Hydrogen-Diesel Energy project
- takeCHARGE – residential rebates and other initiatives to encourage energy efficiency and conservation
Governance

- 15 subsidiary companies – each with a Board of Directors
- Legislation guiding Nalcor’s mandate and governance includes *Energy Corporation Act; Hydro Corporation Act, 2007* and *Corporations Act*
- External consultant engaged to identify skills and experience needed at Board level at Nalcor. Individuals to be identified by independent group using best practices
- Nalcor announced that Hydro would have its own president and appointed John Maclsaac.
Newfoundland Labrador

Muskrat Falls
Overview and Status Update
Fall 2015
Muskrat Falls Project
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- Project Benefits
- Project Summary
- Project Components and Status
  - MF Generation Facility
  - LTA
  - LIL and SOBI Crossing
- Employment and Industrial Benefits
- MF Project Oversight
- Maritime Link
Project Benefits

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

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

<table>
<thead>
<tr>
<th>Muskrat Falls Project: Sub Project</th>
<th>DG3</th>
<th>June 2014</th>
<th>September 2015</th>
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<td>$3.371B</td>
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<td>Labrador Transmission Assets</td>
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<td>Muskrat Falls Capital Cost Budget Total</td>
<td>$6.20B</td>
<td>$6.99B</td>
<td>$7.65B</td>
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</table>

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

**August 2015 Oversight Committee Report**

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

Muskrat Falls Generating Facility
• 824 megawatt (MW) hydroelectric development at Muskrat Falls

Labrador Transmission Assets (LTA)
• Two 315 kilovolt (kV) High Voltage alternating current (HVac) transmission lines between Muskrat Falls and Churchill Falls

Labrador-Island Transmission Link (LIL)
• 1,100 km long High Voltage direct current (HVdc) transmission line between Muskrat Falls and Soldiers Pond

* Maritime Link is separate from MFP
Muskrat Falls Generating Facility

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

- As of August 2015, actual progress for the facility was 34.8% compared to planned progress of 48.8%
- Variance mainly due to:
  - a change in the North Spur Works Ready for Diversion Milestone from November 2015 to September 2016
  - progress on the Powerhouse and Intake continuing to fall behind Astaldi’s original schedule
  - progress on the Reservoir Preparation slowing
- Stabilization of North Spur is progressing well; geotechnical conditions are as expected
- Discussions are ongoing with Astaldi to determine timelines for completing remaining work on Powerhouse and Intake
- Critical Path for River Diversion in 2016 remains on track, however, risk of delays are high due to powerhouse concrete placement rates
- Focus now on installing Spillway Gates in preparation for River Division in 2016 which is on the Critical Path
North Spur, Powerhouse and Spillway
Labrador Transmission Assets

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

• Newfoundland and Labrador is one of Canada’s premier energy producing areas with light crude production of ~ 80 million barrels annually (216,000 bopd in 2014)

• Four offshore projects producing ~ 25% of Canada’s conventional light crude oil (2nd in Canada behind AB)

• Total cumulative oil production to August 31, 2015 is 1.523 billion barrels. Gross Sales Revenues are $111.12 billion with cumulative royalties of $18.4 billion

• Total expenditures in NL’s offshore area totaled $45 billion from 1966 to 2014

• Discovered resources total ~4.0 billion barrels of oil and ~13 trillion cubic feet of natural gas

• Outstanding work commitments for exploration expenditures over $2.4 billion
2015 Budget Estimates ($,000s)

- Corporate Income Tax: $472,389 (8.2%)
- Tobacco Tax: $157,078 (2.7%)
- Gasoline Tax: $185,709 (3.2%)
- Sales Tax: $1,050,540 (18.2%)
- Personal Income Tax: $1,191,002 (20.7%)
- NL Liquor Corporation: $157,868 (2.7%)
- Other Provincial Sources: $713,250 (12.4%)
- Government of Canada: $671,821 (11.7%)
- Offshore Royalties: $1,157,671 (20.1%)
FIELD DEVELOPMENT SUMMARY
Hibernia

- Reserve estimate of 1.644 billion barrels of oil and 2.353 trillion cubic feet (tcf) of natural gas
- First oil produced on Nov 17, 1997
- Approved production rate of 220,000 barrels of oil per day. Maximum daily throughput 231,871 b
- 2015 YTD production of 25.8 million barrels (~95,000 bopd) up to September 30, 2015
- Cumulative production of 944.5 million barrels of oil
Hibernia

Growth of Reserves and Ownership

<table>
<thead>
<tr>
<th>Year</th>
<th>Proven and Probable Oil Reserves in Millions of Barrels</th>
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<tr>
<td>1986</td>
<td>711</td>
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<tr>
<td>1996</td>
<td>666</td>
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<tr>
<td>2000</td>
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<td>2006</td>
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<td>2010</td>
<td>1395</td>
</tr>
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<td>2014</td>
<td>1644</td>
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<table>
<thead>
<tr>
<th>Participants</th>
<th>Main Field</th>
<th>Southern Extension</th>
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<tbody>
<tr>
<td>ExxonMobil</td>
<td>33.125%</td>
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<tr>
<td>Chevron</td>
<td>26.875%</td>
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<tr>
<td>Suncor</td>
<td>20%</td>
<td>19.5%</td>
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<tr>
<td>Canada Hibernia Holding Corp</td>
<td>8.5%</td>
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<td>Murphy Oil</td>
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<td>Statoil</td>
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<tr>
<td>Nalcor Energy</td>
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Hibernia – Growth Areas

- Hibernia South
  - AA Blocks
  - Hibernia Southern Extension Unit (HSE)

- Ben Nevis/Avalon Development
Terra Nova

- Reserve estimate of 506 million barrels of oil, up from 406 million barrels at sanction in February, 1998
- First oil produced on January 20, 2002
- Approved production rate of 180,000 barrels of oil per day
- 2015 YTD production of 9.87 million barrels (36,000 bopd) up to September 30, 2015
- 2015 production impacted by 55 day maintenance downtime
- Cumulative production of 376 million barrels

<table>
<thead>
<tr>
<th>Terra Nova Project Ownership</th>
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<tr>
<td>Suncor</td>
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<tr>
<td>ExxonMobil</td>
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<td>Statoil</td>
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<td>Chevron</td>
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White Rose

- Reserve estimate of 479 million barrels of oil and 3.02 trillion cubic feet (tcf) of natural gas
  - White Rose Main field reserves of 265 million barrels of oil
  - Growth areas reserves of 214 million barrels of oil
- First oil produced in Nov, 2005
- Approved production rate of 140,000 barrels of oil per day
- 2015 YTD production of 11.56 million barrels (42,000 bopd) up to September 30, 2015
- Cumulative production of 249.4 million barrels

<table>
<thead>
<tr>
<th>White Rose Project Ownership</th>
<th>Main Field</th>
<th>Growth Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husky Energy</td>
<td>72.5%</td>
<td>68.875%</td>
</tr>
<tr>
<td>Suncor</td>
<td>27.5%</td>
<td>26.125%</td>
</tr>
<tr>
<td>Nalcor</td>
<td>0%</td>
<td>5%</td>
</tr>
</tbody>
</table>
White Rose Growth Areas

- North Amethyst, West White Rose (WWRX), and South White Rose Extension (SWRX)
- Reserve estimate 214 million barrels of oil
  - North Amethyst 75 million barrels
  - WWRX 117 million barrels
  - SWRX 22 million barrels
- West White Rose development contingent on final investment decision for wellhead platform or subsea development
West White Rose

Wellhead Platform

Subsea Development
Hebron

- Recoverable reserve estimate of 707 million barrels of oil
- Construction Schedule/Status
  - Project sanctioned December 31, 2012
  - GBS tow out to deep water site on July 22, 2014
  - First oil planned for 2017
- Estimated $14 billion in total costs
  - Capital costs - $8.3 billion
  - Operating costs – $5.8 billion

<table>
<thead>
<tr>
<th>Hebron Project Ownership</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil</td>
<td>36.0429%</td>
</tr>
<tr>
<td>Chevron</td>
<td>26.628%</td>
</tr>
<tr>
<td>Suncor</td>
<td>22.7289%</td>
</tr>
<tr>
<td>Statoil</td>
<td>9.7002%</td>
</tr>
<tr>
<td>Nalcor</td>
<td>4.9%</td>
</tr>
</tbody>
</table>
LAND TENURE & LICENCING ROUNDS
Modern Land Tenure

- In December 2013, NL introduced a new scheduled land tenure system based on global best practices
- Offshore divided into 8 regions
- New entrants now have up to 4 years to make investment decisions
2015 Licencing Round

- 2015 Licence Round – 11 parcels in the Flemish Pass Basin
- Independent resource assessment completed and released prior to Call closing showing prospectivity of 12 billion barrels oil and 113 tcf gas.
- Total bids of $1.2 billion were received on 7 of 11 parcels – record amount for licencing round

<table>
<thead>
<tr>
<th>Parcel</th>
<th>Area (ha)</th>
<th>Successful Bidder</th>
<th>Bid Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>NL15-01-02</td>
<td>274 732</td>
<td>Chevron Canada Limited 35% Statoil Canada Ltd. 35%</td>
<td>$43,175,000.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BG International Limited 30%</td>
<td></td>
</tr>
<tr>
<td>NL15-01-05</td>
<td>267 403</td>
<td>Statoil Canada Ltd. 40% ExxonMobil Canada Ltd. 35%</td>
<td>$11,030,633.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BG International Limited 25%</td>
<td></td>
</tr>
<tr>
<td>NL15-01-06</td>
<td>262 230</td>
<td>Statoil Canada Ltd. 34% ExxonMobil Canada Ltd. 33%</td>
<td>$225,158,741.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP Canada Energy Group ULC 33%</td>
<td></td>
</tr>
<tr>
<td>NL15-01-07</td>
<td>254 321</td>
<td>Statoil Canada Ltd. 34% ExxonMobil Canada Ltd. 33%</td>
<td>$206,258,741.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP Canada Energy Group ULC 33%</td>
<td></td>
</tr>
<tr>
<td>NL15-01-08</td>
<td>268 755</td>
<td>Statoil Canada Limited 50% BP Canada Energy Group ULC 50%</td>
<td>$35,140,653.00</td>
</tr>
<tr>
<td>NL15-01-09</td>
<td>139 477</td>
<td>Statoil Canada Ltd. 100%</td>
<td>$423,189,945.00</td>
</tr>
<tr>
<td>NL15-01-10</td>
<td>163 008</td>
<td>Nexen Energy ULC 100%</td>
<td>$261,000,000.00</td>
</tr>
</tbody>
</table>
Upcoming Licencing Rounds

- 2016 – Eastern Newfoundland - Flemish Pass Basin
- 2016 – Eastern Newfoundland - East Orphan Basin
- 2017 – Labrador South
- 2019 – Labrador South and South Eastern Newfoundland
- Potential for other rounds under the one and two year cycle during this period
EXPLORATION AND
GEOSCIENCE PROGRAMS
Statoil Program – Flemish Pass

Discoveries
- Mizzen
  - O-16, Dec 2008 (SDL Issued)
- Harpoon
  - O-85, Apr 2013 (suspended)
- Bay du Nord
  - C-78Z, Jul 2013 (suspended)

Recent Wells
- Bay de Verde
  - F-67Z, Nov 2014 (suspended)
- Bay du Nord
  - P-78, Feb 2015 (surface casing/suspended)
  - L-76Z, May 2015 (terminated)
- Bay d’Espoir
  - B-09, Sept 2015 (surface casing/suspended)
- Cupids
  - A-33, Nov 2015 (terminated)
- Fitzroya
  - A-12, Nov 2015, (surface casing/suspended)
- Bay d’Espoir B-09, Dec 2015 (drilling - December)

Discoveries – Statoil Reserve Estimates
- Mizzen – 100 - 200 million barrels
- Bay du Nord – 300 - 600 million barrels
- Harpoon - no results yet released

Scheduled/Planned Wells
ExxonMobil Program – Flemish Pass

**Exploration Timeframe**

- Parcel offered under Call for Bids NL 13-01 announced on May 16, 2013
- Exploration License EL-1135 awarded on January 15, 2015
- Record bid for single parcel totaling $559 million
- 3D multi-client survey completed over parcel in fall 2015
- Coverage area – 5293 square kilometers
- Evaluation of survey data ongoing
- Drill ready prospects possibly identified as early as 2016

**NL13-01 Bid Consortium**

<table>
<thead>
<tr>
<th>Consortium</th>
<th>Percentage</th>
<th>Bid Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil</td>
<td>40%</td>
<td>$223.6 million</td>
</tr>
<tr>
<td>Suncor</td>
<td>30%</td>
<td>$167.7 million</td>
</tr>
<tr>
<td>ConocoPhillips</td>
<td>30%</td>
<td>$167.7 million</td>
</tr>
</tbody>
</table>
Multi-Client Seismic Acquisition

Acquisition Programs 2015

- Two 2D vessels - 26,838 line km acquired (cumulative ~ 110,000 line km, Nalcor partner)
- Two 3D vessels – 10,280 km² acquired
  - Orphan 4987 km² (Nalcor partner)
  - Flemish 5293 km² (ExxonMobil partner)
Seismic Coverage Area

District Boundaries
Gulf of Mexico OCS Region
Overview of Oil and Gas Activity
Western NL
Regional Overview

- Oil and gas potential in Western Newfoundland occurs both onshore and offshore
- Exploration activity has taken place in both areas
- To date there has only been limited production onshore
Basins Overview

- Anticosti Basin underlies the northern part of the gulf (light brown)
- The Magdalen Basin underlies the south (lower blue)
- St. Anthony Basin (upper blue)
Appalachian Structural Front

- The Appalachian Structural Front marks a comparatively narrow fault zone that extends from Texas through to Western NL
- Most deformation occurs to the east of the front
- 18 Basins along the feature with numerous oil and gas discoveries throughout
Land Rights Issuance

Offshore
- Western NL designated as a low activity region under the Scheduled Land Tenure System
- 9 year term Exploration Licence
- Single criteria award, minimum bid of $10 million
- 6 year Period I, extendable to 9 years with drilling deposits
- Rentals applicable in Period II
- Rentals applicable during SDL

Onshore
- 7 year term Exploration Permit
- Single criteria award
### Regional Summary

#### Legend
- Exploration Permit
- Exploration Licence
- Production Lease

#### Company | Onshore
--- | ---
Black Spruce Exploration Corp | EPs 93-103/03-105
Investcan Energy Corporation | EPs 96-105/03-106/03-107
Enegi Oil Inc. | 2002-01(A) (Production Lease)

#### Company | Offshore
--- | ---
Shoal Point Energy | EL-1070
Corridor Resources | EL-1105
Black Spruce Exploration Corp / Ptarmigan Energy | EL-1120
Black Spruce Exploration Corp | EL-1127/EL-1128
Hydraulic Fracturing Review

- No applications being accepted for oil & gas wells utilizing hydraulic fracturing
- External panel appointed in Oct. 2014 to conduct a review and make recommendations
- Terms of Reference and internal and external work completed, shared with panel
- Report expected early in 2016
Black Spruce Exploration

- Two exploration permits previously held by Deer Lake Oil and Gas Inc. in the Deer Lake Basin.
- 3 modern wells drilled since 2000.
- Western Adventure #1 (2002) encountered hydrocarbons in the North Brook formation where low unsustainable volumes of natural gas were flow tested.
- Werner Hatch, drilled in 2010 and evaluation suggests the possibility of shallow unconventional hydrocarbon system with further evaluation ongoing.
Investcan Energy Corporation

- Three onshore exploration permits
  - EPs 96-105, 03-106 and 03-107
- 2010 - completed 130 km 2D seismic program
- 2012 – 4 well Pilot Appraisal Program proposed, only one well completed
- 2013 – Re-entered and deepened (935 to 1970 m) well drilled in 2005
- Exploration well program awaiting decision of EA filed in March 2013
  - Environmental Preview Report filed August 29, 2013
Enegi Oil Inc.

- PL 2002-01(A) Garden Hill South
- Discovered in 1994 by Hunt/Pan Canadian, production lease issued in 2002 covering full permit area
- Lease renewed in 2012 for a further 5 years covering only Garden Hill South Development, resulting in smaller lease area
- Enegi commenced legal action to obtain title to original full Garden Hill lease area (case ongoing in courts)
- Intermittent production by various owners with total production to date of ~40,000 bbls
Onshore Call for Postings

- Call for Posting first step in Land Rights Issuance Process
- Dec 2010 – Call for Postings to identify prospective parcels in Western NL completed
- ~ 28,000 square kilometers of land was open for nomination
- Geological risk analysis and prospectivity ranking on parcels completed
- Request for Bids on hold pending outcome of fracturing review panel
Offshore Western Newfoundland

- Five operators – five exploration licences
- Seismic programs and drilling possible for 2016/2017
- Some licences can accommodate onshore to offshore wells
- EL 1070 on hold pending recommendation from Hydraulic Fracturing Review Panel
- ELs 1105 and 1120 – Request to extend licences to 2017 under evaluation
Shoal Point Energy/Enegi Oil

- Different interest holders for the shallow and deep water rights
- Shoal Point is pursuing shallow (~1200 m) unconventional oil resources in the Green Point Formation
- Onshore to offshore well completed – evaluation of the well results ongoing
- Plans for hydraulic fracturing well on hold pending panel recommendations
- Enegi Oil Inc. holds interest in strata below the base of the Green Point Formation
Black Spruce Resources

- ELs 1127 and 1128
- Exploration Licences issued in 2012 to Ptarmigan Energy
- Ptarmigan received EA approval for a geophysical program over the licences in October 2013
- Black Spruce Exploration acquired 100% working interest in 2013 through Farm In Agreement with Ptarmigan Energy
Black Spruce/Ptarmigan Energy

- EL 1120
- Split ownership of land parcel
  - Black Spruce
    - ~113,000 Ha
  - Ptarmigan Energy
    - ~27,000 Ha
- Expiry date Term 1 extended to January, 2016 with drilling deposit
Corridor Resources Inc.

- EL 1105 is located in the Gulf of St. Lawrence, referred to as the "Old Harry Prospect"
- Strategic Environmental Assessment (SEA) of the area completed in May, 2014
- Project based Environmental Assessment (EA) was on hold pending completion of SEA. EA addendum filed in April 2014.
- Licence amendment application submitted to C-NLOPB October 2015
- Corridor soliciting partner interest to drill an exploration well
Petroleum Exploration Enhancement Program

- $5 million onshore program jointly administered by the Department of Natural Resources and Nalcor Energy
- 28 projects funded in Western NL with $3.5 million allocated to date
- MUN geoscience personnel have been engaged on many projects that improve exploration efficiency and/or reduce exploration risk

Onshore aeromagnetic survey - $678,000
Fluid Inclusion /Chemostat Study - $200,000
Deformation History of BSG Basin - $107,100
Petroleum Systems Analysis of WNL - $229,832
Evolution and Petroleum Potential of ASF - $90,950
Offshore Geoscience Data Program

- $20 million offshore program jointly administered by the DNR and Nalcor Energy
- $3.0 million program for a fields survey covering nearshore and offshore Western, NL completed in 2012
- In total $3.6 million for three projects in Western NL
International Symposium

- Hosted by Greater Corner Brook Board of Trade
- 2015 - 9th International Symposium in Western Newfoundland
- Held annually in September in Corner Brook
- Natural Resources is a platinum sponsor of this event
Information Note
Department of Natural Resources

Title: Newfoundland and Labrador Hydro’s Amended General Rate Application and Hearing

Issue: Overview of Newfoundland and Labrador Hydro’s (NLH) Amended General Rate Application (GRA) and ongoing rate hearing.

Background and Current Status:
- The GRA process establishes base electricity rates that utilities can charge to its customers to recover costs. Between GRAs, rates may be adjusted annually in relation to fuel cost fluctuations through the Rate Stabilization Plan (RSP) mechanism. The base rates presently in effect were established in the last GRA filed in 2006.

- On July 30, 2013, NLH filed a GRA with the Board of Commissioners of Public Utilities (PUB) proposing new electricity rates for consumers effective January 1, 2014. The proposed rates reflected changes in costs since the last GRA including fuel costs and capital expenditures.

NLH Amended GRA Rate Request
- Due to the passage of time and associated changes in costs, NLH filed an amended GRA with the PUB on November 10, 2014 using a 2015 forecast. New costs added to NLH’s operations since the 2013 forecast included the new 123.5 MW combustion turbine at Holyrood, additional supply costs incurred during January 2014 power outages, and lower fuel efficiency experienced at the Holyrood thermal generating station.

- Customers are grouped into rate classes corresponding to customer region and end user groups including Domestic (i.e. residential) and General Service (GS) (e.g. businesses, municipalities). NLH’s amended GRA proposed to increase average rates by the percentages below relative to the rates in effect in November 2014. Actual impacts will vary with individual customer consumption levels.
  - Island interconnected and L’Anse au Loup system domestic and GS customer increases of 2.8%.
  - Island isolated diesel system domestic and GS customer increases of respectively 7.1% and 18.5-19.2% for GS depending on demand level.
  - Labrador isolated customer increases of 11.4% for domestic and 18.5-19.2% for GS. (The domestic increase includes the Northern Strategic Plan (NSP) subsidy).
  - Labrador interconnected domestic and GS rates increases of 1.9%.

Interim Rates
- On January 28, 2015, NLH submitted an interim rates application for all NL electricity customers except Labrador industrial customers. Utilities seek interim rates to begin recovering costs after filing a GRA rather than waiting for the completion of the GRA and incurring losses during the interim period.
• The PUB denied the interim rates application on May 8, 2015 but ordered other changes to provide interim rates effective July 1, 2015. The PUB ordered i) an interim increase of 8.0% in the NP base rate and a NP RSP adjustment which would result in an average net rate decrease of 4.9% for NP domestic customers, ii) an interim increase of 50% of the proposed increases in government diesel customer rates. The interim decrease in NP rates also lowered rates for isolated diesel non-government customers as their rates are based on NP rates rather than the actual isolated diesel cost of service.

• A table comparing pre-GRA, interim and proposed GRA rates is included as Attachment 1.

**NLH Amended GRA Rate Hearing**

• The NLH GRA Hearing began September 9, 2015 and is expected to conclude in early December. During the hearings, the PUB hears evidence on NLH's overall performance, including reliability, financial management, customer service management, electricity sector developments, cost of capital and customer rates.

• The hearing consists of a series of panels of NLH employees and expert witnesses. The panels are cross-examined by the PUB and Counsel as well as interveners including: NP, the Consumer Advocate, Island Industrial Customers, Vale, the Innu Nation, Nunatsiavut Government, and Mr. Danny Dumasque.

**Prudence Review**

• On February 27, 2015, the PUB announced the GRA would include a prudence review of 11 NLH actions and decisions regarding capital projects and operating expenses between 2013 and 2015 and one deficiency account to reflect a shortfall in NLH 2014 revenue. The PUB hired Liberty Consulting Group to provide expert assistance.

• The prudence review incudes many issues that were initially part of the PUB’s Investigation and Hearing into Supply Issues on the Island Interconnected System, as well as remaining rate base issues for NLH's applications to install diesel units for black starting Holyrood and the installation of the 123.5MW combustion turbine generator.

• The total value of the NLH applications reviewed by Liberty is approximately $212M. Liberty found that NLH could have avoided $26.9M in the absence of imprudence. Throughout the GRA process and the prudence hearings, NLH has countered all findings by Liberty that deem NLH to have undertaken imprudent actions. The PUB has heard from most GRA interveners on prudence issues and will make a final decision when it provides an order on the amended GRA.

**Analysis:**

• PUB staff informed NR officials that an order on NLH’s amended GRA may not be provided until early 2016. NLH officials advise NR if an order is not provided until early 2016, rates will likely not be in place until mid-2016.

• Government contracted independent electricity consultant Power Advisory LLC in 2014 to review the NL electricity industry including regulation. The consultant’s final report
concluded the length of time elapsed since the 2006 GRA and the since the filing of the ongoing GRA in 2013 indicates regulatory inefficiency and issues with NL electricity system regulation.

**Action being taken:**
- NR officials will continue to monitor the GRA process.

**Prepared/approved by:** E. Thompson/C. Snook
### Attachment 1: Rate Comparison

<table>
<thead>
<tr>
<th>Service</th>
<th>Rates when Amended GRA was filed Nov. 2014 (Cents/ kWh)</th>
<th>Interim Rates in effect since July 1, 2015 (Cents/ kWh)</th>
<th>Proposed Rates in the Amended GRA (Cents/ kWh)</th>
<th>Percentage rate changes proposed in Amended GRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island Interconnected Domestic</td>
<td>13.0</td>
<td>12.4</td>
<td>13.4</td>
<td>7.7%</td>
</tr>
<tr>
<td>Island Interconnected General Service</td>
<td>9.7-12.3</td>
<td>9.0-11.7</td>
<td>10.0-12.7</td>
<td>7.8-11.0%</td>
</tr>
<tr>
<td>Labrador Interconnected Domestic</td>
<td>4.7</td>
<td>4.7</td>
<td>4.7</td>
<td>1.9%</td>
</tr>
<tr>
<td>Labrador Interconnected General Service</td>
<td>2.0-5.2</td>
<td>2.0-3.2</td>
<td>2.0-3.2</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

### Island Isolated

<table>
<thead>
<tr>
<th>Service</th>
<th>Rates when Amended GRA was filed Nov. 2014 (Cents/ kWh)</th>
<th>Interim Rates in effect since July 1, 2015 (Cents/ kWh)</th>
<th>Proposed Rates in the Amended GRA (Cents/ kWh)</th>
<th>Percentage rate changes proposed in Amended GRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Domestic</td>
<td>14.6</td>
<td>14.0</td>
<td>15.6</td>
<td>12.0%</td>
</tr>
<tr>
<td>Diesel Small General Service</td>
<td>19.9</td>
<td>18.8</td>
<td>23.6</td>
<td>25.1%</td>
</tr>
<tr>
<td>Diesel Large General Service</td>
<td>22.1</td>
<td>20.9</td>
<td>26.3</td>
<td>25.8%</td>
</tr>
</tbody>
</table>

### Labrador Isolated

<table>
<thead>
<tr>
<th>Service</th>
<th>Rates when Amended GRA was filed Nov. 2014 (Cents/ kWh)</th>
<th>Interim Rates in effect since July 1, 2015 (Cents/ kWh)</th>
<th>Proposed Rates in the Amended GRA (Cents/ kWh)</th>
<th>Percentage rate changes proposed in Amended GRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Domestic</td>
<td>13.9/6.6*</td>
<td>13.3/6.5*</td>
<td>14.9/7.4*</td>
<td>12.2%</td>
</tr>
<tr>
<td>Diesel Small General Service</td>
<td>19.4</td>
<td>18.4</td>
<td>23.0</td>
<td>25.1%</td>
</tr>
<tr>
<td>Diesel Large General Service</td>
<td>21.4</td>
<td>20.3</td>
<td>25.5</td>
<td>25.8%</td>
</tr>
</tbody>
</table>

### L'Anse au Loup

<table>
<thead>
<tr>
<th>Service</th>
<th>Rates when Amended GRA was filed Nov. 2014 (Cents/ kWh)</th>
<th>Interim Rates in effect since July 1, 2015 (Cents/ kWh)</th>
<th>Proposed Rates in the Amended GRA (Cents/ kWh)</th>
<th>Percentage rate changes proposed in Amended GRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>L'Anse au Loup Domestic</td>
<td>12.9/7.9*</td>
<td>12.3/7.5*</td>
<td>13.3/8.1*</td>
<td>7.8%</td>
</tr>
<tr>
<td>L'Anse au Loup General Service</td>
<td>11.5-12.9</td>
<td>10-8-12/4</td>
<td>11.8-13.3</td>
<td>7.2-8.8%</td>
</tr>
</tbody>
</table>

* These rate impacts factor in Government’s NSP subsidy provided to domestic customers of the L’Anse Au Loup and Labrador isolated diesel systems.
Information Note  
Department of Natural Resources

Title: Newfoundland Power 2016/17 General Rate Application

Issue: To provide an overview of Newfoundland Power’s (NP) 2016/17 General Rate Application

Background and Current Status:
- NP submitted a 1,095-page General Rate Application (GRA) to the PUB on October 16, 2015 proposing electricity rate increases averaging 3.1% effective July 1, 2016. The factors leading to the proposed increase are discussed in detail below and include increases in NP operating cost and capital investment, wholesale supply cost increases and a proposed higher return on equity.

- As a regulated utility, NP must obtain approval from the PUB before it may change the rates it charges its customers. The GRA process will include a public hearing where interveners, expert witnesses and the PUB will argue NP’s assumptions and proposals. Following the hearing the PUB will issue an order rejecting or approving the application with or without modifications.

- NP is primarily an electricity distribution company. NP operates exclusively on the Island portion of the province in the more populated areas of the Island Interconnected system excluding the Great Northern Peninsula, Baie Verte Peninsula, the south coast and the off-grid diesel powered communities. The GRA notes that in 2015 NP provides electricity to an estimated 261,000 residential (i.e. Domestic Class) and commercial (i.e. General Service Class) customers. These customers represent the vast majority of the 290,000 electricity customers in NL. NP does not service any industrial class customers (e.g. North Atlantic Refining, Vale).

- The Public Utilities Act states a GRA must be filed based on a forecast of costs. Therefore, GRA is based on NP’s forecast of 2016 costs, known as the “test year.” NP operates under cost of service regulation where NP can recover, through customer rates, all reasonable and prudent costs incurred in providing electricity to its customers, including a just and reasonable return on its rate base.

- NP filed its last GRA with the PUB on September 14, 2012 and the PUB issued its ruling on the application on April 17, 2013 in Order P.U. 13(2013). NP previously filed GRAs in 2010 and 2008. A central issue in the GRA was NP’s argument for increasing its 2013 return on equity (ROE) to 10.4%. The PUB ordered that ROE be set at 8.8%.

2016/17 GRA Highlights  

NP Operating and Capital Costs
- Approximately 1.4% of the proposed 3.1% average rate increase relates to changes in NP’s internal costs since its last GRA. This includes the cost of continuing investment in the electrical system, increases in operating costs, but at a rate that is less than inflation, and a reduction in costs associated with employee future benefits. The impact of cost amortizations and new depreciation rates as proposed in the Application are included amongst these cost changes.
Wholesale Supply Costs

- NP is requesting an increase of 0.9% relating to a “rebalancing” of its supply costs. NP officials have explained to NR that this relates to the increase in NP’s energy purchases from Newfoundland and Labrador Hydro (NLH) since NP’s last GRA. The PUB has previously approved two tiers of prices that NLH may charge NP for energy. The pricing in effect now is: 1) 3.506 cents/kWh for the first 250,000,000 kWh NP purchases annually from NLH; and 2) 9.509 cents/kWh for all additional purchases. Thus, as NP energy purchases have increased since the last GRA, NP is purchasing more energy at the higher rate, known as the tail block.

- The GRA notes that NP currently purchases approximately 93% of its power supply requirements from NLH. These purchases are NP’s largest cost. In 2014, NP’s power purchases from Hydro cost approximately $403 million, or approximately 64% of total revenue.

- The Muskrat Falls Project (MFP) is discussed in detail in GRA Section 4 in relation to NP’s longer-term concerns, but no MFP costs are included in GRA costs as the GRA covers only the 2016-2017 period which is before MFP costs would begin to be collected in NLH rates.

Return on Equity

- NP has requested an increase in its return on equity (ROE) to 9.5% from 8.8% currently for 2016 and 2017, which accounts for approximately 0.8% of the requested increase. The company contends the higher ROE is necessary to ensure its financial integrity amid future financial risks facing NP including in relation to MFP.

Customers Impacts

- The actual impacts of the rate increase will vary by customers class as follows:

<table>
<thead>
<tr>
<th>Rate Class</th>
<th>Average Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>3.6%</td>
</tr>
<tr>
<td>General Service 0-100 kilowatt (kW) (110 kilovolt amp (kVA))</td>
<td>3.1%</td>
</tr>
<tr>
<td>General Service 110-1000 kVA</td>
<td>0.6%</td>
</tr>
<tr>
<td>General Service 1000 kVA and Over</td>
<td>3.1%</td>
</tr>
<tr>
<td>Street and Area Lighting</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

- The variances in rate increases between these customer classes relate to changes in their respective cost of service relative to revenue collected in rates. Revenue being collected from customers in the General Service 110-1000 kVA rate class is 2% more than costs. To address this customer class issue, NP proposes an increase that is 2.5% below average or 0.6% (3.1% - 2.5%). The only class of customer whose revenue is below the cost of service is the Domestic customers. As a result the Domestic customer rates are proposed to receive a greater than average increase of 3.6%.

NP’s Role in NLH’s Ongoing GRA

- Hearings for NLH’s Amended 2013 GRA began on September 9, 2015 and are anticipated to continue until late-October 2015. NP is an intervenor in NLH’s GRA. NP is NLH’s largest customer and as such is a keenly interested party in the NLH GRA.
As a GRA intervener, NP directs information requests to NLH, participates in technical conferences mandated by the PUB, cross-examines witnesses appearing on behalf of any party, calls its own expert witnesses and makes representations through counsel to the PUB.

NP’s participation in the NLH GRA hearing has focused on: i) NLH’s rising costs since its last GRA, ii) the decline in reliability of service provided by NLH and iii) how NLH organizational changes since the last GRA have affected management decisions and how those decisions have an impact on the company’s rising costs and declining reliability. Information gathered by NP throughout NLH’s GRA will likely inform NP’s approach and testimony throughout its GRA hearings in 2016.

Analysis

NP’s GRA notes that medium to long-term uncertainties around the MFP present NP with financial risks supporting NP’s request for a higher ROE. The GRA noted higher rates relating to MFP entering service presents risks to NP as its customers might begin to switch from electricity to other sources of space and water heating thus reducing NP’s revenue. In support of this assertion, NP included in the GRA a January 19, 2015 credit opinion on NP from Moody’s highlighting MFP risks to the company.

The MFP comments in the GRA reflect NP CEO Gary Smith’s October 1, 2015 public address to the Conception Bay South Chamber of Commerce. He stated the costs of the project will have a significant impact on customer bills while noting the actual increases have not been finalized as the project remains under construction. Mr. Smith also stated the recent increases in estimated capital costs for Muskrat Falls would have a significant effect on rates.

Any NP increase in ROE would also apply to future NLH rate applications in keeping with Government OC2009-063 dated March 17, 2009 directing that the PUB set the same target return on equity for NLH as most recently set for NP when calculating NLH’s return on rate base.

Action being taken:

- NR will continue to monitor issues related to the NP GRA and future hearings.

Prepared by/approved by: E. Thompson/C. Snook
Information Note
Department of Natural Resource

Title: Review of the Newfoundland and Labrador Electricity System

Issue: Overview of Power Advisory LLC’s “Review of the Newfoundland and Labrador Electricity System”, released by the Provincial Government on October 30, 2015.

Background and Current Status:
- The Government announced on January 9, 2014 that the Department of Natural Resources (NR) would carry out an independent review of the NL electricity system. The NR review was announced following the power outages on the Island Interconnected system earlier in January, however, Government stated the outage was not the sole catalyst for the review.

- The development of the Muskrat Falls Project (MFP) and the associated Maritime Link will change the way the NL electricity system operates. The NL electricity system review aimed to provide government with expert advice to ensure our system has the optimal structure, management and regulatory processes in place as the MFP enters service and the province interconnects with the North American electricity system.

- On January 10, 2014 the Board of Commissioners of Public Utilities (PUB) stated it would conduct an inquiry and hearing on the causes of the outages. On October 8, 2014, the PUB notified Newfoundland and Labrador Hydro (NLH) that it was planning a second phase of its review to consider issues associated with adequacy and reliability of the electricity system post-MFP integration. NR has aimed for its review to minimize duplication of the PUB review some duplication may be evident when the PUB review is complete.

- Government selected Power Advisory LLC (PA) to complete the NR review following a public and competitive Request for Proposals process. PA partnered with engineering firm Hatch Ltd. for aspects of the review related to reliability and electricity system operations. The contract was valued initially at $284,286 and was later increased by $41,500 to allow for additional work.

- PA conducted interviews with Nalcor Energy, NLH, Newfoundland Power (NP), the PUB and the Consumer Advocate throughout the research phase of the review. PA also requested data from NLH and NP and conducted interviews with individuals in other provinces to identify electricity sector best practices. PA also spoke with other key NL electricity system stakeholders Alderon Iron Ore Corp, Elemental Energy (Fermeuse wind power), Emera NL (Maritime Link), ENEL (St. Lawrence wind power), Iron Ore Company of Canada, and Vale. PA received no response to its invitation for comments from Kruger Inc. and North Atlantic Refining Limited.

- PA’s report was finalized on October 26, 2015 and the report was released by Government on October 30, 2015.

Analysis:
- The following outlines key findings and best practices from the review. A list of best practices and other findings along with NR’s suggested future actions is provided in Attachment A.
Part 1:
- This section is an inventory and overview of NL electricity system performance that examines electricity system legislation, oversight agencies and major changes in the sector that have occurred since the introduction of the Electrical Power Control Act, 1994. Part 1 also reviews NLH commercialization and the development of the MFP.

- PA concluded that provincial ratepayers will be subject to rate increases due to the province’s aging electricity assets and MFP generation and transmission expenditures and that it is common practice for policy makers and regulators to spread out initial rate increases for large projects over longer periods of time. PA notes NL will need to consider a series of market access, planning, and rate and regulatory issues prior to integration.

Part 2:
- This section provides governance, regulatory and commercial best practices that can be applied to the NL electricity sector. The best practices highlighted by Power Advisory consider changes that are required to the NL electricity sector in advance of interconnection.

- PA finds NLH governance could be improved through letters of expectation from government to the crown utility. PA highlights the importance of attracting and hiring utility board directors with desired skills and qualifications through a competitive process, as well as ensuring directors have knowledge and understanding of the electricity system. PA places particular importance on appointing the utility CEO and directors for fixed five year terms to enhance independence and allowing the board to elect the CEO.

- PA’s review of regulatory issues concludes NLH does not give the regulatory function sufficient prominence within its corporate hierarchy and this may be why NLH has greater difficulty navigating the regulatory process in contrast to NP.

- PA states the PUB has distinct challenges regulating the sector as evidenced by inconsistencies in regulatory predictability and certainties on decisions for NP and NLH. PA notes the PUB’s oversight of NP is effective and efficient and results in decisions that generally provide predictability and certainty. The PUB’s experience with NLH is very different with excessive time periods between General Rate Applications, a lengthy 2013 GRA hearing, and high number of requests for information.

- PA highlights relationship issues between Government, the utility and the regulator and notes that Government exemptions and other types of intervention have reduced the PUB’s ability to act independently. PA states the length of time between GRAs and the Court of Appeal overturning PUB decisions suggest regulatory inefficiency involving the three parties.

- PA highlights that ensuring appropriate balance to the provincial Rural Subsidy by sending price signals to customers would be beneficial. The Rural Subsidy provides domestic customers in rural areas with a basic block averaging 850kWh per month at NP retail rates to cover basic needs as well as a comparable customer charge. Energy consumption beyond the lifeline is more expensive than the basic block but is priced below cost and is also funded by the Rural Subsidy.
PA suggests the current subsidy does not reflect the high cost of serving these customers which results in customers using energy inefficiently.

- PA also provides a series of commercial best practices that could maximize export opportunities, including the establishment of a strategy for active participation in export markets suited to provincial electricity resources, adoption of open access principles consistent with provincial neighbours’ requirements including open access transmission tariff, functional separation of NLH transmission and marketing, and same-time online information system.

- PA also notes it is best practice to protect ratepayers through creation of a heritage pool of energy relating to existing NLH generation assets, and maximizing energy surplus for export by ensuring investments in energy efficiency and demand management, and by ensuring electricity rate design sends price signals to customers that encourage conservation.

**Part 3:**

- This section focuses on technical aspects of the electricity system pertaining to the NL’s present and future electric reliability. The section also contains an overview of the changes required for NL to operate as part of the North American bulk electric system and to improve reliability following interconnection. Part three also examines other factors pertaining to NLH and NP system operations including asset management, load forecasting and investment planning.

- PA’s key findings relate to the reliability performance of NLH and NP. While NLH’s average outage duration and frequency have increased in recent years, NP’s reliability has been improving. However, PA acknowledges that direct comparisons between the two utilities are difficult because their operations and location of operations are so different. Concerns related to NLH reliability performance were also raised extensively in Liberty Consulting’s December 2014 final report of the PUB’s Supply Issues and Power Outages Review.

- PA’s findings related to reliability post-interconnection note that following interconnection, higher electric reliability will be possible in the province at a lower cost. PA also suggests NL will need to decide if it will seek to comply with North American Electric Reliability Corporation (NERC) Standards, and if so which are appropriate for the province. NERC standards are presently the industry standard for electric reliability in North America and are presently adopted by all provinces (with or without modifications) except for NL.

**Action to be taken:**

- Many best practices PA highlighted are being considered or factored into how NR, in cooperation with Nalcor, is preparing to transition the NL electricity system to North American integration.

**Prepared/approved by:** E. Thompson/C. Snook/T. English
Attachment A: Summary of Best Practices and Notable Findings

1. NL electricity system activity consistent with PA best practices/key findings
   - Utilize regulatory process to review the need and cost-effectiveness of new resource options: PA states best practice is to rely on regulatory process to assess the need for most new facilities and their cost-effectiveness relative to alternatives, however for larger facilities (e.g. Muskrat Falls) it is appropriate for Government to retain decision-making authority.  
     **Action:** Best practice/key finding is currently in place.

   - Employ a Capital budget review process: PA finds the capital budget review process conducted by the PUB and its Capital Budget Filing Guidelines to be best practice.  
     **Action:** Best practice/key finding is currently in place.

   - Establish a Consumer Advocate: PA notes the presence of a Consumer Advocate in a relatively small jurisdiction such as NL to be a best practice.  
     **Action:** Best practice/key finding is currently in place.

   - Implement a continuous improvement approach to load forecast procedures: PA’s review of NLH’s load forecast procedures noted a continuous improvement approach which represent best practice.  
     **Action:** Best practice/key finding is currently in place.

   - Carry out robust internal planning: PA finds NLH and NP carry out robust internal planning consist with utility best practices.  
     **Action:** Best practice/key finding is currently in place.

   - Ensure adequate distribution system capacity planning criteria: PA found NP and NLH’s planning criteria to be consistent with best practice for the industry.  
     **Action:** Best practice/key finding is currently in place.

   - Establish detailed asset management programs: PA finds NLH and NP have detailed asset management programs that incorporate continuous improvements mechanisms following best practices.  
     **Action:** Best practice/key finding is currently in place.

   - Establish agreements with industrial customers to increase load control through demand response: PA notes NLH’s recent agreements with various industrial customers which allow NLH’s Energy Control Centre to dispatch up to 105.8MW of emergency load follow best practice, particularly in advance of MF in-service.  
     **Action:** Best practice/key finding is currently in place.

   - PUB Annual Report: PA notes the PUB issues an annual report in accordance with the Transparency and Accountability Act which reviews its mandate, annual performance, and its success in achieving the various objectives and measures outlined in its multi-year performance-based activity plan.  
     **Action:** Best practice/key finding is currently in place.
• **PUB Strategic Priorities**: PA notes the PUB’s 2013-14 annual report indicates its strategic priorities include enhancing regulatory efficiency and effectiveness, and corporate capacity. The PUB found these priorities are appropriate and reasonable for the PUB.
  **Action**: Best practice/ key finding is currently in place.

• **PUB Focus on Self-Reflection and Appropriate Issues**: PA states the PUB’s 2013-14 annual report indicates it is sufficiently inwardly focused and geared towards enhancing its effectiveness.
  **Action**: Best practice/ key finding is currently in place.

• **PUB Financial and Organizational Autonomy**: PA notes the PUB satisfies the governance objectives to ensure financial and organizational autonomy recommended in “Guidelines for Governance of the Electricity Sector in Canada.” Those guidelines suggest that regulators have sufficient and predictable financial resources to fulfill their functions, obtain their funds through rate levies collected from customers, and have control over their internal organization and personnel decisions.
  **Action**: Best practice/ key finding is currently in place.

2. NL electricity system activity varying from PA best practices/ key findings.

• **PUB Communication**: PA finds that the PUB is focused on communications with stakeholders, in particular via its website. PA states that it is important that the PUB continue to give its website appropriate attention and devote sufficient resources to the website.
  **Action**: Government will provide the PUB with this best practice/ key finding and ask it to assess for possible further action.

• **Ensure sufficient resources are devoted to participation in export markets**: PA states best practice is recognizing the importance associated with active participation in various export markets and developing a strategy for doing so that is well suited to the province’s electricity resources and objectives.
  **Action**: Government, with Nalcor/ NLH, is currently assessing this best practice/ key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Enable appropriate transmission access**: PA notes obtaining an Open Access Transmission Tariff or tariff that provides a comparable level of service is a best practice following interconnection to ensure NL is able to export electricity to US markets. PA also states the PUB would be the natural party to hear any disputes relating to transmission service given that such a role would be consistent with the PUB’s existing practice.
  **Action**: Government, with Nalcor/ NLH, is currently assessing this best practice/ key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Provide appropriate degree of functional separation of System Operator functions**: PA states functional separation of the NL System Operator consistent with FERC Order 899 that requires separation of transmission functions from the merchant functions of the utility is best practice.
  **Action**: Government, with Nalcor/ NLH, is currently assessing this best practice/ key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.
• **Enable oversight of long-term export contracts:** PA states in many jurisdictions it is best practice for regulators to have authority to approve long-term contracts when risks are borne with the ratepayer. Where these risks reside with the utility there is no need for the regulator to oversee or approve such contracts.

  **Action:** Government, with Nalcor/ NLH, is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Ensure customers benefit from NLH’s hydroelectric generation:** PA proposes NL consider implementing a Heritage Block as has been implemented in BC and QC which effectively ring-fences existing hydroelectric facilities to guarantee the benefits of the low cost power for its customers.

  **Action:** Government, with Nalcor/ NLH, is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Determine oversight of heritage rate:** If NL decides to establish a Heritage Block, PA suggests NL can either allow the PUB to establish the heritage energy rate or set the heritage energy rate by government based on appropriate return and cost of service.

  **Action:** Government, with Nalcor/ NLH, is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Establish NERC mandatory reliability standards:** PA notes best practice in Canada is to adopt a NERC-centred reliability framework. This is considered a best practice as the standards and criteria have been developed by industry and participation will ensure consistency with other jurisdictions in North America.

  **Action:** Government, with Nalcor/ NLH, is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

• **Clearly articulate Government’s objectives for the crown corporation:** PA notes best practice is for Government to articulate the Crown corporation’s accountabilities and the shareholder’s responsibilities. This has been done in other jurisdictions through a “Shareholder Letter of Expectations.” PA suggests NL’s strategic directions in the *Energy Plan* could be sharpened.

  **Action:** Government is currently assessing this best practice/key finding.

• **Attract utility Board of Directors with desired skills and experience:** PA notes for Boards to perform their role effectively they require appropriate skills and experience. Presently, NL legislation does not include a “merit-based and objective approach” to hiring directors.

  **Action:** Government and Nalcor announced November 2, 2015 a more merit-based approach for appointments to Nalcor’s board of directors.

• **Develop the knowledge and understanding of utility board members:** PA states other jurisdictions lead more frequent briefings and informational tools to assist utility board members. NLH has a single orientation process for Board members when they are first appointed.

  **Action:** Government will provide Nalcor with this best practice/key finding and ask Nalcor to assess for possible further action.
- **Establish shorter terms for utility Board of Directors**: PA recommends directors be appointed for fixed five year terms to enhance their independence. Presently, directors serve at the pleasure of government.
   **Action**: Government is currently assessing this best practice/key finding.

- **Have independent appointment process for NLH Board and CEO**: PA notes directors should generally be appointed for fixed five year terms to enhance their independence. Presently, NLH directors and CEO serve at the pleasure of government. PA also suggests the CEO be appointed by the Board, not by the Lieutenant Governor as occurs presently in NL.
   **Action**: Government is currently assessing this best practice/key finding regarding the CEO and Government and Nalcor announced November 2, 2015 steps being taken to enhance independence of Nalcor’s and NLH’s board of directors.

- **Ensure PUB is capable of efficiently and capably regulating the electricity sector**: PA suggests the PUB has distinct challenges regulating the sector. PA highlights inconsistencies in regulatory predictability and certainties on decisions for NP and NLH. PA notes recent Court cases where the regulator’s decisions have been remanded are clear examples of regulatory inefficiencies.
   **Action**: Government is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

- **Ensure regulator is adequately staffed to ensure regulatory efficiency**: PA suggests expanding and developing staff resources to ensure adequate resources are focused on regulatory and advisory services.
   **Action**: Government is currently assessing this best practice/key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

- **Address PUB intervenor issues**: PA notes there were nine intervenors participating in the ongoing NLH GRA proceeding, which contributed to the high number of requests for information (more than 1,000) during the ongoing NLH GRA. This number of information requests is not consistent with an efficient regulatory proceeding.

  With regard to intervenor costs, PA notes NL interveners are able to recover their costs from the utility in whose proceeding they intervene, which is appropriate for domestic and general service customers but less so for industrial customers who are better able to assess whether an intervention is likely to be cost-effective. PA notes the PUB may wish to consider whether industrial customers have the financial means to present their interests in PUB proceedings.
  **Action**: Government is currently assessing this best practice/key finding.

- **Consumer Advocate Appointment**: PA notes a possible issue to be considered is that the appointment structure for the Consumer Advocate can result in possible conflicts of interest to providing oversight over NLH, although PA does not refer to this as a best practice issue. With NLH as a Crown utility, and the Consumer Advocate appointed by the Lieutenant Governor, there is some risk, but no evidence of occurrence, that the Consumer Advocate will be less
aggressive in overseeing NLH than NP. Having a longer appointment terms for the Consumer Advocate could reduce that risk.

**Action:** Government is currently assessing this key finding.

- **Improve relationship between government, regulatory and utility:** PA observes there are clearly issues with respect to the relationship between NLH, the PUB and Government. PA suggests that significant government intervention through exemptions to the EPCA and the PUA may restrict the PUB from acting independently as is best practice.

  **Action:** Government is currently assessing this best practice/ key finding as part of the integration of Muskrat Falls and preparations for North American interconnection.

- **Employ a public interest test:** PA states regulators generally set rates and review proposed projects using a public interest test, generally as a specific regulatory criterion (e.g. “just and reasonable rates”). In NL this does not occur.

  **Action:** Government is currently assessing this best practice/ key finding.

- **Employ outcome-based policy direction:** Best practice from a regulatory efficiency and outcome perspective is for government to delineate policies to the Crown utility and for the regulator to clearly and in advance of the specific regulatory proceeding, then leave them to act independently within their mandates. However, there are situations where government must use the Crown Corporation for achieving public interest objectives.

  **Action:** Government is currently assessing this best practice/ key finding.

- **Ensure appropriate weight and attention is given to rate regulation function:** PA notes best practice is for electric utilities to give greater prominence to the regulatory role, possibly through the appointment of a VP responsible for regulatory affairs. NLH has elected not to create such a role.

  **Action:** Government will provide NLH with this best practice/ key finding and ask the utility to assess for possible further action. On November 6, 2015 Nalcor announced the title of the head of NLH would be changed to president, rather than vice president.

- **Ensure appropriate balance to the Rural Subsidy:** PA suggests the subsidy does not reflect the high cost of serving the customers, resulting in customers using energy inefficiently and not aggressively pursuing energy efficiency alternatives.

  **Action:** Issues related to the Rural Subsidy have been raised during NLH’s General Rate Application Hearing. Government will assess this best practice/ key finding in view of the PUB’s decision on NLH’s application.

- **Ensure timely rate review processes:** PA notes it is best practice to have a GRA every three years. Waiting six years between GRA as has occurred in NL is not best practice. PA also notes it is best practice for decisions to be issued within a set period from when the record is closed e.g. within 90 days. Both NLH and Government have indicated they understand the concerns relating to a lengthy GRA process and expect more regular intervals between GRAs in the future.

  **Action:** Government, with NLH, is currently assessing this best practice/ key finding.
• **Ensure appropriate levels of investment in energy efficiency and demand management:** PA notes NL utilities' incentives to pursue energy efficiency programs are muted by ratemaking processes and therefore having an independent organization designated for these programs would be beneficial.  
  **Action:** Government is currently assessing this best practice/key finding.

• **Increase capital expenditure and capital lease thresholds:** PA notes NL’s $50K capital expenditure and $5K capital lease threshold to be below best practice. A capital expenditure threshold of $5M is more reasonable.  
  **Action:** Government is currently assessing this best practice/key finding.

• **Prepare utility integrated resource plan (IRP):** NLH presently does not prepare integrated resource plans for stakeholder review. PA notes that while new generation will not be required in Newfoundland for a number of years due to MF, a longer term IRP could be beneficial for NLH.  
  **Action:** Government will provide NLH with this best practice/key finding and ask the utility to assess for possible further action.
Newfoundland and Labrador Offshore Projects Key Facts

Background:

- NL has an estimated 3.9 billion barrels of discovered crude oil and 12.6 trillion cubic feet of discovered natural gas.

- Currently, NL’s offshore oil projects include Hibernia (including the Main Area, AA Block and Hibernia Southern Extension), Terra Nova, White Rose and the White Rose Expansion Projects (including North Amethyst, West White Rose Pilot Project and the South White Rose Extension). The next stand-alone project is Hebron which is in the development stage.

- Cumulative oil production from all projects as of September 30, 2015 was 1.57 billion barrels with an estimated value of $113 billion.

Hibernia:

- Hibernia, the province’s first producing offshore oil field, was discovered in 1979. Development costs for Hibernia were $5.8 billion (47% NL content) and the project was developed by means of a Gravity Based Structure (GBS). First oil occurred on November 17, 1997.

- Hibernia working interest holders are as follows:

<table>
<thead>
<tr>
<th>Main Field &amp; AA Blocks</th>
<th>HSE Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil (operator)</td>
<td>33.125%</td>
</tr>
<tr>
<td>Chevron</td>
<td>26.875%</td>
</tr>
<tr>
<td>Suncor</td>
<td>20.000%</td>
</tr>
<tr>
<td>CHHC</td>
<td>8.500%</td>
</tr>
<tr>
<td>Murphy Oil</td>
<td>6.500%</td>
</tr>
<tr>
<td>Statoil</td>
<td>5.000%</td>
</tr>
<tr>
<td>Nalcor Energy</td>
<td>0.000%</td>
</tr>
<tr>
<td>Total</td>
<td>100.000%</td>
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  Note: HSE unit is on a unitized basis.

- Hibernia’s recoverable oil reserve estimate, including the Southern Extension Unit, is 1,644 million barrels (mmbbls). Cumulative production to September 30, 2015 totaled 944.5 mmbbls leaving 699.5 mmbbls in remaining reserves. Cumulative royalties since first oil to September 30, 2015 total approximately $9.6 billion.

- On December 16, 2014, the CNLOPB updated its reserve estimate for the Hibernia Field from 1,395 million barrels of oil (last updated in 2010) to 1,644 million barrels of oil. The increase resulted from information gathered from production and drilling activities as well as new geological and reservoir data.

- All reserves are expected to be recovered by the end of 2047 (based on latest forecast project production field life from CNLOPB).
Terra Nova:

- Terra Nova, the province’s second producing offshore oil field, was discovered in 1984. Development costs for Terra Nova were $2.985 billion (27.4% NL content) with the project being developed via a Floating Production, Storage and Offloading Vessel (FPSO). First oil was produced on January 20, 2002.

- Terra Nova working interest holders:

<table>
<thead>
<tr>
<th>Terra Nova Project</th>
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</thead>
<tbody>
<tr>
<td>Suncor (operator)</td>
<td>37.675%</td>
</tr>
<tr>
<td>ExxonMobil</td>
<td>19.000%</td>
</tr>
<tr>
<td>Statoil</td>
<td>15.000%</td>
</tr>
<tr>
<td>Husky Energy</td>
<td>13.000%</td>
</tr>
<tr>
<td>Murphy Oil</td>
<td>10.475%</td>
</tr>
<tr>
<td>Mosbacher</td>
<td>3.850%</td>
</tr>
<tr>
<td>Chevron</td>
<td>1.000%</td>
</tr>
<tr>
<td>Total</td>
<td>100.000%</td>
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- Terra Nova’s recoverable oil estimate is 506 mmbbls. Cumulative production to September 30, 2015 totaled 376.0 mmbbls leaving 130 mmbbls in remaining reserves. Cumulative royalties since first oil to September 30, 2015 total approximately $5.6 billion.

- All reserves are expected to be recovered by the end of 2027 (based on latest forecast project production field life from CNLOPB).

White Rose:

- White Rose, the province’s third producing offshore oil field, was discovered in 1984. White Rose was developed using a FPSO and its total development cost was $2.0 billion (40% NL content). First oil from the field was produced on November 12, 2005.

- The North Amethyst field, a White Rose satellite, was developed at a cost of $1.2 billion (62.3% NL content) and first oil was produced on May 31, 2010.

- In June 2015 and September 2015, Husky Energy announced that it has started production from the first and second oil production wells respectively in the South White Rose Extension tie-back project. Net peak production from the South White Rose extension is expected to ramp up to about 15,000 bbls/day. The West White Rose has been producing from the test pilot project development since 2011.

- White Rose and White Rose expansion oil project working interest holders:

<table>
<thead>
<tr>
<th>White Rose Project</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Husky Energy (operator)</td>
<td>72.500%</td>
</tr>
<tr>
<td>Suncor</td>
<td>27.500%</td>
</tr>
<tr>
<td>Total</td>
<td>100.000%</td>
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</tbody>
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<table>
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<tr>
<th>White Rose Expansion Project</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Husky Energy (operator)</td>
<td>68.875%</td>
</tr>
<tr>
<td>Suncor</td>
<td>26.125%</td>
</tr>
<tr>
<td>Nalcor Energy</td>
<td>5.000%</td>
</tr>
<tr>
<td>Total</td>
<td>100.000%</td>
</tr>
</tbody>
</table>
In July 2015, Husky Energy’s development plan amendment for the White Rose Extension Project, which incorporates the Wellhead Platform development option, received conditional approval from the C-NLOPB along with the federal and provincial governments. This project is still being assessed by Husky Energy and requires a final investment decision from the company and its partners.

In July 2015, the CNLOPB completed a reassessment of the oil reserves/resource estimates for the White Rose field based on conditional approval of the White Rose Extension Project Development Plan Amendment. The CNLOPB estimates that total White Rose field reserves will increase to 404 MMbbls.

In December 2014, Husky announced that it is deferring a final investment decision on the West White Rose Extension Project (currently includes West White Rose beyond the pilot project as well as future expansions into the North Avalon and South Avalon pools). Husky is considering whether to cease the Wellhead Platform/Concrete Gravity Structure (CGS) development option and move to a subsea development concept, or to continue with project deferral until oil prices improve. Utilizing a subsea development concept would result in less recoverable resources and less royalty revenue and industrial benefits to the province.

White Rose and North Amethyst total estimated reserves and resources are 404 mmbbls and 74.6 mmbbls, respectively, for a total of approximately 479 mmbbls. Cumulative production from both fields to September 30, 2015 totaled 249.4 mmbbls leaving 229.6 mmbbls remaining to be recovered. Cumulative royalties since first oil to September 30, 2015 total approximately $3.2 billion.

For White Rose and North Amethyst, all reserves are expected to be recovered by the end of 2029 (based on latest forecast project production field life from CNLOPB, Husky Energy and Nalcor Energy). This estimated date will change based on a decision by Husky Energy and partners on a development concept primarily for the West White Rose area of the White Rose Extension project.

**Hebron:**

- Hebron was discovered in 1981 and is estimated to contain 707 million barrels of recoverable resources making it the second largest oil discovery in the province. Hebron will be developed using a GBS, but on a smaller scale than Hibernia. The pre-production capital development costs for Hebron are currently estimated at $11.6 billion.

- Hebron working interest holders:

<table>
<thead>
<tr>
<th>Hebron Project</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExxonMobil (operator)</td>
<td>36.043%</td>
</tr>
<tr>
<td>Chevron</td>
<td>26.628%</td>
</tr>
<tr>
<td>Suncor</td>
<td>22.729%</td>
</tr>
<tr>
<td>Statoil</td>
<td>9.700%</td>
</tr>
<tr>
<td>Nalcor Energy</td>
<td>4.900%</td>
</tr>
<tr>
<td>Total</td>
<td>100.000%</td>
</tr>
</tbody>
</table>
- Hebron partners sanctioned the project on December 31, 2012. First oil is expected to occur in late 2017. All reserves are expected to be recovered by the end of 2051.
## OFFSHORE OIL PROJECTS FACT SHEET

<table>
<thead>
<tr>
<th>Project / Development Area</th>
<th>Hibernia (Main Area &amp; AA Blocks)</th>
<th>Hibernia Southern Extension (Unit)</th>
<th>Terra Nova</th>
<th>White Rose</th>
<th>White Rose Expansion Projects</th>
<th>Hebron</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>West White Rose</td>
<td></td>
</tr>
<tr>
<td>Discovery Date</td>
<td>1979</td>
<td>1984</td>
<td>1984</td>
<td></td>
<td>1984</td>
<td>1981</td>
</tr>
<tr>
<td>Development Concept</td>
<td>GBS</td>
<td>FPSO</td>
<td>FPSO</td>
<td></td>
<td>Subsea Tie-back for Pilot Project (CGS/Subsea Tieback under review)</td>
<td></td>
</tr>
<tr>
<td>Development Costs ($ billion)</td>
<td>$5.8</td>
<td>$2.985</td>
<td></td>
<td></td>
<td>$2.0</td>
<td>$1.2</td>
</tr>
<tr>
<td>First Oil</td>
<td>Nov-97</td>
<td>Jun-11</td>
<td>Jan-02</td>
<td>Oct-05</td>
<td>Sept-11</td>
<td>May-10</td>
</tr>
<tr>
<td>Reserves / Resources (mmbbls)</td>
<td>1,389</td>
<td>255</td>
<td>506</td>
<td>265³,⁴</td>
<td>117³</td>
<td>22³</td>
</tr>
<tr>
<td>Cumulative Production to September 30, 2015 (mmbbls)</td>
<td>944.5</td>
<td>376.0</td>
<td>196.0</td>
<td>10.6</td>
<td>0.5</td>
<td>42.4</td>
</tr>
<tr>
<td>Estimated Remaining Resources as of September 30, 2015 (mmbbls)</td>
<td>699.5</td>
<td>130.0</td>
<td>69.0</td>
<td>106.4</td>
<td>21.5</td>
<td>32.6</td>
</tr>
<tr>
<td>Estimated Value of Production as of September 30, 2015 ($ million)</td>
<td>$64,855</td>
<td>$26,514</td>
<td>$16,868</td>
<td></td>
<td>$5,654</td>
<td></td>
</tr>
<tr>
<td>Employment as at September 30, 2015 (% NL Resident at Hire)</td>
<td>2,329 (85%)</td>
<td>794 (92%)</td>
<td>1,574 (83%)</td>
<td></td>
<td>10,205 (52%)</td>
<td></td>
</tr>
<tr>
<td>Cumulative Royalties as of Sept 30, 2015 ($ million)</td>
<td>$9,619</td>
<td>$5,588</td>
<td>$3,009</td>
<td></td>
<td>$225</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Development costs for Hibernia, Terra Nova and White Rose are estimated by the CNLOPB and are based on costs from the date of development plan application to first oil from each field. Hebron development costs are estimated by Natural Resources from the project commencement date to first oil and are based on Project Operator Schedules of costs to 2014 and estimates from Nalcor’s Q3 2015 development case to first oil.
2. Reserve and resource estimates sourced to the CNLOPB.
3. The C-NLOPB has recently completed a reassessment of the oil reserves/resource estimates for the White Rose field based on conditional approval of the White Rose Extension Project Development Plan Amendment (DPA). Overall, with approval, the CNLOPB estimates that total White Rose field reserves will increase to 404 Mmbbls.
4. Under the original DPA in 2001, Husky Energy was approved to develop the South Pool only. White Rose now includes the West pool, South pool (including Block 2 and 5) and the North pool.
5. Estimated value of production based on project production data published by the CNLOPB multiplied by the Brent price published by the U.S. Energy Information Administration.
6. Numbers may not sum due to rounding.
Information Note
Department of Natural Resources

Title: Newfoundland and Labrador Petroleum Royalty Regimes

Issue: To provide a summary of the petroleum royalty regimes administered by NL for information purposes.

Background and Current Status:
- The Government of NL is responsible for the establishment of royalty regimes as part of the development of offshore and onshore oil and gas resources. The Atlantic Accord specifically states that NL can establish and collect offshore resource revenues as if these were on land within the province.

- Petroleum royalty regimes in NL have been established through: the development of detailed regulations under the Petroleum and Natural Gas Act (the P&G Act); negotiations and fiscal agreements with resource developers; or, exist as framework regimes to be developed further under regulations.

- While the current royalty terms in place for producing projects have historically required royalty to be paid in cash, the province has the right to take its royalty share in kind (i.e., collect and market crude oil). Total royalties received as cash to the end of August 2015 are estimated at $18.4 billion. Each interest holder in each project is separately responsible for royalty payments.

Offshore Oil Royalty Structures (Return Allowance Based):
- The province's offshore royalty terms that apply to the Hibernia, Terra Nova, White Rose and Hebron projects are similarly structured. Project interest holders pay a basic royalty from first production which progresses to a net royalty once they have recovered their eligible capital and operating costs in the project including uplifts and a defined return allowance (a guaranteed return on investment) on these costs. As well, with project development negotiations, an additional royalty linked to the price of oil and profit level has also been added in certain projects.

- A detailed breakdown on the return allowance based offshore oil royalty structures is provided in Attachment 1. In summary:
  o Basic Royalty:
    - Commences at the beginning of production and continues to the end of production;
    - Rates are applied to gross sales revenue (less transportation costs); and
    - Rates increase with time, cumulative production and/or when eligible costs are recovered.
  o Net Royalty:
    - Two tiered net (profit) royalty structure;
    - Rates are applied to net sales revenue; and
    - Rates become payable when eligible costs and prescribed return allowances are recovered as set for each net royalty tier.
Additional (Super) Royalty:
- Royalty was negotiated and applies to the Hibernia South Extension, White Rose Expansion and Hebron projects;
- Rates are applied to net sales revenue and range from an additional 2.5% to 12.5%;
- Depending on the regime, rates become payable depending on a number of distinct or combined events including: (i) first oil in a production area; and (ii) recovery of eligible costs and prescribed return allowances and the per barrel price of oil exceeds a prescribed benchmark in a given month (from $50-70 US WTI).

Onshore Royalty Structure
- NL announced a generic onshore royalty system in 1994 for the development of our onshore petroleum resources. The regime is similar in structure to the return allowance based offshore oil royalty regimes but includes a two million barrel royalty holiday.

Natural Gas Royalty Structure
- In 2007, NL announced the natural gas royalty regime framework with release of the Energy Plan, which is included in Attachment 2. While the structure includes a basic and net royalty component, the internal mechanics within the royalty framework are different when compared to the return allowance based offshore and onshore oil royalty regimes.

- Basic and net royalty rates change through a smooth progression (can increase or decrease) between a low and high price bands; and, net Royalty comprises only one tier with sliding scale flexible rates linked to a revenue over cost index referred to as the R-Factor. There is no return allowance element.

Enhanced Generic Offshore Oil Royalty Regime
- The new GORR is built upon the concept of cost recovery and profitability as measured by a simple and transparent ratio of project revenue over project costs also called the R-Factor.

- The new GORR was designed to exclude compounding return allowances and cost uplift provisions currently incorporated in to the terms that apply to existing oil developments. These elements can be considered “cashless” expenses and the compounding effect of the return allowance represents a significant risk to NL royalty take as project delays and cost increases have the effect of deferring or preventing the higher tier royalties.

- The new GORR includes both a basic and net royalty component like other royalty structures:
  - Basic royalty, which is applied to gross revenue, begins at first production and increases from 1% to 7.5% as the project recovers its costs; and,
  - Net royalty, which is applied to net revenue, begins once project costs are fully recovered, and ranges from 10 per cent to 50 per cent. Basic royalty is a credit against net royalty once it becomes payable.

- The new GORR is intended to apply to all new production licences, including production licences issued based on existing exploration and significant discovery licences and on future exploration and significant discovery licences obtained through the scheduled land tenure
system. There will be no retroactive application of the new regime to existing projects where regulated or negotiated royalty terms are in place.

**Summary of Royalty Terms by Specific Project**

- **Hibernia (Including Hibernia South):**
  - The Hibernia Development Project Royalty Agreement was originally negotiated under contractual arrangements in 1990 covering development of Main Field lands within production license (PL) 1001.
  - The 1990 royalty agreement was amended through further negotiation in 2000 based on regulatory related allowances for a production rate increase and again in 2009 with the development of Hibernia South lands including AA Blocks and the Hibernia South Extension (HSE) Unit.
  - The 2009 amendments now cover all lands in the Main Field, AA Blocks and HSE Unit spanning PL 1001, PL 1011, PL 1005 and exploration license (EL) 1093. With Nalcor Energy Oil and Gas Inc. (Nalcor) holding a 10% working interest in only a section of PL 1001 which forms part of the overall HSE Unit, PL 1011 was issued on October 31, 2012 to reflect Nalcor’s ownership. Prior to Nalcor’s equity acquisition in the Hibernia project, PL 1001 contained the lands now assigned to PL 1011.
  - Hibernia’s royalty regime is separated into two distinct areas with rates and tiers specific to PL1001 and PL1011 and rates and tiers specific to PL 1005 and EL1093. Within PL 1001 and PL 1011, Hibernia project interest holders are currently paying a Net Royalty Tier 1 rate of 30% and an Additional Royalty Rate of 12.5% (excluding the main field) for a combined top royalty rate of 42.5% on net revenue. With specific payout dates for the various project interest holders, Net Royalty Tier 1 became payable between November 2008 to November 2009. Net Royalty Tier 2 has not achieved payout to date and is currently not payable.
  - Within PL 1005 and EL 1093, Hibernia project interest holders are currently paying only the Basic Royalty at a rate of 5%.

- **Terra Nova:**
  - The Terra Nova project's royalty regime follows rates and calculations as per *Part XIII of the Royalty Regulations (2003) under the P&G Act.*
  - All project interest holders are currently paying the top combined net royalty rate of 42.5% (Tier 1 at 30% and Tier 2 at 12.5%). With specific payout dates for the various project interest holders, Net Royalty Tier 1 became payable between October 2004 and December 2005 while Net Royalty Tier 2 became payable between October 2007 and June 2008.

- **White Rose**
  - The project falls under the generic offshore royalty regime with rates and calculations as per *Part XIV of the Royalty Regulations (2003) under the P&G Act.* All project interest holders are currently paying the top combined net royalty rate of 30% (Tier 1 at 20% and Tier 2 at 10%). Net Royalty Tier 1 and Tier 2 became payable after respective payouts occurred for both project interest holders in August 2007 and February 2008 respectively.
• White Rose Expansion
  o The White Rose Expansion project is comprised of three main development areas namely North Amethyst, West White Rose and the South White Rose Extension. The White Rose Expansion project’s royalty regime falls under the White Rose Expansion Project Fiscal Agreement which was negotiated in 2007 and includes a 5% Nalcor equity acquisition.
  o The agreement primarily adopts Part XIV of the Royalty Regulations (2003) subject to certain amendments and All Project interest holders in the White Rose Expansion project are currently paying the greater of Net Royalty Tier 1 (20% rate) and basic royalty (5% rate). Net Royalty Tier 2 payout has not occurred and is currently not payable.

• Hebron
  o The Hebron project’s royalty regime falls under the Hebron Fiscal Agreement which was negotiated in 2008 and includes a 4.9% Nalcor equity acquisition.
  o Like White Rose Expansion, the Hebron agreement primarily adopts Part XIV of the Royalty Regulations (2003) subject to certain amendments. Royalty becomes payable with first oil which is anticipated to occur late 2017.

Analysis:
• N/A

Action Being Taken:
• Regulations for the new GORR are being developed and a review of the natural gas royalty regime framework is planned for 2015-2016.

### NL Royalty Structure, Rates & Tiers

<table>
<thead>
<tr>
<th>Royalty Regimes</th>
<th>Terra Nova</th>
<th>White Rose - Current Generic Royalty Regulations</th>
<th>White Rose Expansion</th>
<th>Hebron</th>
<th>Generic Onshore*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Royalty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Holders pay the higher of Basic Royalty or Tier 1 Royalty</td>
<td>1% until earliest of: (i) 50 mmbls (ii) Simple Payout</td>
<td>1% until earliest of: (i) 20% of reserves (ii) 50 mmbls (iii) Simple Payout</td>
<td>1% until earliest of: (i) 20% of reserves (ii) 50 mmbls (iii) Simple Payout</td>
<td>1% until Simple Payout</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>2.5% until Simple Payout</td>
<td>2.5% until earliest of: (i) 100 mmbls (ii) Simple Payout</td>
<td>2.5% until earliest of: (i) 100 mmbls (ii) Simple Payout</td>
<td>5% after Simple Payout</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5% for next 100 mmbls</td>
<td>5% for next 100 mmbls</td>
<td>7.5% for next 100 mmbls</td>
<td>5% for next 100 mmbls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.5% for next 100 mmbls</td>
<td>7.5% Thereafter</td>
<td>7.5% Thereafter</td>
<td>7.5% Thereafter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10% Thereafter</td>
<td></td>
<td></td>
<td>7.5% after a rate of return of 5% plus the Long Term Government of Canada Bond Rate (LTGBR)</td>
<td></td>
</tr>
<tr>
<td><strong>Net Royalty</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tier 1 Rate</td>
<td>30%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Tier 1 Return Allowance</td>
<td>10% plus CPI</td>
<td>5% plus LTGBR</td>
<td>5% plus LTGBR</td>
<td>5% plus LTGBR</td>
<td>5% plus LTGBR</td>
</tr>
<tr>
<td>Tier 2 Rate</td>
<td>12.5%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Tier 2 Return Allowance</td>
<td>18% plus CPI (CPI = Canada Consumer Price index)</td>
<td>15% plus LTGBR</td>
<td>15% plus LTGBR</td>
<td>15% plus LTGBR</td>
<td>15% plus LTGBR</td>
</tr>
<tr>
<td>Additional Royalty</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>6.5% applies after Tier 1 Payout if the monthly average posted WTI price for the month exceeds US$50/bbl.</td>
<td>6.5% applies after Tier 1 Payout if the monthly average posted WTI price for the month exceeds US$50/bbl</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

*Generic Onshore Royalty Regime includes a Royalty Holiday on the first 2 million barrels."
# NL Royalty Structure, Rates & Tiers (Cont'd)

<table>
<thead>
<tr>
<th>Royalty Regime</th>
<th>Hibernia Main Field PL 1001</th>
<th>Hibernia AA Blocks PL 1001</th>
<th>Hibernia South Extension Unit PL 1001 &amp; PL 1011</th>
<th>Hibernia South Extension Unit PL 1005 &amp; EL1093</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Royalty</strong></td>
<td>1% first 3 million barrels (Production start-up) and 18 months after Production start-up. 2% until earliest of: (i) Next 18 months; or (ii) Production exceeds 120 mmbbls 3% until earliest of: (i) Next 18 months; or (ii) Production exceeds 194 mmbbls 4% until earliest of: (i) Next 18 months; or (ii) Production exceeds 268 mmbbls 5% thereafter</td>
<td>5% from 1st Production</td>
<td>5% from 1st Production</td>
<td>5% from 1st Production</td>
</tr>
<tr>
<td><strong>Net Royalty</strong></td>
<td>30%</td>
<td>30% from 1st Production 15%</td>
<td>30% from 1st Production 15%</td>
<td>30% on eligible costs from PL1005/EL1093 only</td>
</tr>
<tr>
<td><strong>Supplementary Royalty</strong></td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
</tr>
<tr>
<td><strong>Additional Royalty</strong></td>
<td>Not Applicable</td>
<td>12.5% of Net Revenue</td>
<td>7.5% of Net Revenue when WTI ≥ $50 and an additional 5% of Net Revenue (total of 12.5%) when WTI ≥ $70.</td>
<td>2.5% of Net Revenue when WTI ≥ $50 and an additional 5% of Net Revenue (total of 7.5%) when WTI ≥ $70</td>
</tr>
</tbody>
</table>
Natural Gas Royalty Regime

Offshore Natural Gas Royalty
Royalty comprised of two components: basic and net. Basic and net royalty rates change through a smooth progression in between a low and high tier bandwidth.

**Basic Royalty:**
- to begin with project production
- basic royalty rates driven by netback value of production

<table>
<thead>
<tr>
<th>Netback Price (NP)</th>
<th>Basic Royalty Rate (BRR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ &lt; Cdn$4 (NP_{min})</td>
<td>2% (BRR_{min})</td>
</tr>
<tr>
<td>$ &gt; Cdn$8 (NP_{max})</td>
<td>10% (BRR_{max})</td>
</tr>
</tbody>
</table>

where Netback Price is the calculated price to the project net of transportation costs

\[ BRR = BRR_{min} + \left\{ (NP - NP_{min}) + (NP_{max} - NP_{min}) \right\} \times (BRR_{max} - BRR_{min}) \]

Basic Royalty = (revenue – transportation costs) x BRR

**Net Royalty:**
- to begin with project cost recovery
- net royalty rates driven by revenue to cost index

<table>
<thead>
<tr>
<th>R Factor (R)</th>
<th>Net Royalty Rate (NRR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 (R_{min})</td>
<td>0% (NRR_{min})</td>
</tr>
<tr>
<td>&gt; 4 (R_{max})</td>
<td>50% (NRR_{max})</td>
</tr>
</tbody>
</table>

where \( R = (\text{cumulative revenue less cumulative transportation costs less cumulative royalty paid}) + (\text{cumulative project capital & operating costs}) \)

\[ NRR = NRR_{min} + \left\{ (R - R_{min}) + (R_{max} - R_{min}) \right\} \times (NRR_{max} - NRR_{min}) \]

Net Royalty = (revenue – transportation costs – project capital & operating costs – basic royalty paid) x NRR
New Generic Offshore Oil Royalty Regime

**Basic Royalty:**
- to begin at first production and increase with project cost recovery
- fixed basic royalty rates linked to revenue over cost index (R Factor)

<table>
<thead>
<tr>
<th>R Factor (R)</th>
<th>Basic Royalty Rate (BRR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Oil to $R &lt; 0.25$</td>
<td>1%</td>
</tr>
<tr>
<td>$0.25 \leq R &lt; 1$</td>
<td>2.5%</td>
</tr>
<tr>
<td>$1 \leq R &lt; 1.25$</td>
<td>5%</td>
</tr>
<tr>
<td>$R \geq 1.25$</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

where $R = \frac{\text{(cumulative gross sales revenue and incidental revenue less cumulative transportation costs less cumulative basic and net royalty paid to prior month)}}{\text{(cumulative pre-development, capital & operating costs)}}$

Basic royalty = (gross sales revenue - transportation costs) x BRR

**Net Royalty:**
- to begin with project cost recovery
- sliding scale net royalty rates driven by revenue over cost index (R Factor)

<table>
<thead>
<tr>
<th>R Factor (R)</th>
<th>Net Royalty Rate (NRR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R &lt; 1$ ($R_{\text{min}}$)</td>
<td>0%</td>
</tr>
<tr>
<td>$1 \leq R \leq 3$</td>
<td>10% ($NRR_{\text{min}}$) - 50% ($NRR_{\text{max}}$)</td>
</tr>
<tr>
<td>$R &gt; 3$ ($R_{\text{max}}$)</td>
<td>50%</td>
</tr>
</tbody>
</table>

R has the same definition and calculation as for the basic royalty above

$NRR = NRR_{\text{min}} + \{[(R - R_{\text{min}}) \div (R_{\text{max}} - R_{\text{min}})] \times (NRR_{\text{max}} - NRR_{\text{min}})\}$

Net royalty = (gross sales revenue + incidental revenue - transportation costs - project capital & operating costs) x NRR

**Notes:**
1. The new regime will comprise a basic and net royalty with both linked to cost recovery and profitability as measured by one R Factor calculation.
2. Basic royalty rates will range from 1% to 7.5% with step increases linked to the R Factor.
3. Net royalty set to one tier with sliding scale flexible rates ranging from 10% to 50%. Rates linked to same R Factor as defined for basic royalty.
4. Basic royalty is a credit against net royalty.
5. Royalty calculations are to be compiled on a monthly basis.
6. The new regime does not include return allowances, uplifts and consumer price index adjustments on project costs.
Title: Offshore Petroleum Resources

Issue: To provide background information on offshore discovered and undiscovered petroleum resources in the province.

Background and Current Status:

- "Reserves" are volumes of hydrocarbons proven by drilling, testing and interpretation of geological, geophysical and engineering data, that are considered to be recoverable using current technology and under present and anticipated economic conditions. Oil reported for Hibernia, Terra Nova, White Rose (South Avalon and Southern Extension) and North Amethyst fields are classified as reserves.

- "Resources" are volumes of hydrocarbons, expressed at 50% probability, assessed to be technically recoverable that have not been delineated and have unknown economic viability. The classification of resources includes gas, natural gas liquids (NGL), and oil in pools and fields that have not yet been developed or approved by the C-NLOPB. NGL are derived from natural gas, which is the portion of petroleum that exists in either the gaseous phase or in solution in crude oil in natural underground reservoirs.

- Assessment of the discovered oil and gas reserves and resources in oil and gas fields is an important function of the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB). Companies also provide reserve and resource estimates. Because estimates are based on the construction of models and the interpretation of data, results may differ between the C-NLOPB and company estimates.

- The C-NLOPB estimates that total discovered resources and reserves offshore NL include 3.91 billion barrels of oil, 12.57 trillion cubic feet (tcf) of natural gas and 520 million barrels of natural gas liquids. As of September 30, 2015, 1.57 billion barrels of oil have been produced from this total. Attachment 1 summarizes the discovered reserves and resources for oil, natural gas and natural gas liquids by field.

- "Undiscovered Resources" describes those quantities that are estimated to be contained in accumulations yet to be discovered. These quantities are estimated to exist, on the basis of broad geological knowledge and theory, outside known fields or accumulations. Based on older data, the Geological Survey of Canada has estimated the undiscovered petroleum resources to be approximately 60 trillion cubic feet (tcf) of natural gas and 6 billion barrels of oil.

- The NL offshore has considerable potential for additional discoveries. On October 1, 2015, the Province announced that 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 offered in Call for Bids NL15-01EN in the Flemish Pass covering less than two per cent of Newfoundland and Labrador’s offshore area. The Yellow blocks in the map included in Attachment 2 are the areas included in this Assessment. Attachment 3 is a map of the Jeanne d’Arc Basin with projects and discoveries.
Analysis:
- For information purposes only.

Action Being Taken:
- For information purposes only.

Prepared/approved by: S. Mavin/W. Foote
## Petroleum Reserves and Resources

### Newfoundland Offshore Area (Updated November 26, 2015)

<table>
<thead>
<tr>
<th>Field</th>
<th>Oil 10^6 m³</th>
<th>Gas 10^9 m³</th>
<th>NGLs* million bbls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grand Banks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hibernia</td>
<td>261.5</td>
<td>1644</td>
<td></td>
</tr>
<tr>
<td>Helirun</td>
<td>112.4</td>
<td>707</td>
<td></td>
</tr>
<tr>
<td>Terra Nova</td>
<td>80.5</td>
<td>506</td>
<td></td>
</tr>
<tr>
<td>White Rose</td>
<td>64.2</td>
<td>404</td>
<td></td>
</tr>
<tr>
<td>North Amethyst</td>
<td>11.9</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>North Dana</td>
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<td>Trave</td>
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<td>-</td>
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<td>Balicatters</td>
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<td>North Bjarni</td>
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<td>Bjarni</td>
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<td>Smotr</td>
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<td>2338</td>
<td>304.7</td>
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*Reserves* are volumes of hydrocarbons proven by drilling, testing and interpretation of geological, geophysical and engineering data, that are considered to be recoverable using current technology and under present and anticipated economic conditions. Oil reported for Hibernia, Terra Nova, White Rose and North Amethyst fields are classified as reserves.

*Reserves* are volumes of hydrocarbons, expressed at 50% probability, assessed to be technically recoverable that have not been delineated and have unknown economic viability. Gas, NGLs, and oil in not approved pools/undeveloped fields are currently classified as resources.

Natural Gas Liquids (NGLs) are derived from natural gas, which is the portion of petroleum that exists in either the gaseous phase or in solution in crude oil in natural underground reservoirs.

White Rose reserves contain the South Avalon Pool, the Southern Extension Pool, the West White Rose Pool and the North Avalon Pool.

White Rose Resources contain the Hibernia Reservoir.

*Produced reserve oil volumes as of September 30, 2015. These also include a small quantity of natural gas liquids.

NGL estimates have not been updated since 2006.
Attachment 2 – NL Offshore Petroleum Rights
Title: Management of Offshore Petroleum Resources

Issue: To provide background information regarding offshore petroleum management

Background and Current Status:

- The provincial and federal governments jointly manage the offshore through the 1985 Atlantic Accord. The Atlantic Accord Acts provided for the creation of the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) and permits the agency to enter Memoranda of Understanding with various federal and provincial departments and agencies to co-ordinate shared responsibilities in a number of important areas. The Accord Acts outline the federal/provincial, ministerial and joint management responsibilities, including the making of regulations.

- The C-NLOPB is responsible for the day-to-day administration of petroleum activities in the NL offshore area, including exploration, development, production, conservation, and transportation activities. The C-NLOPB does not make regulations but is consulted in the regulation-making process.

- The C-NLOPB can make decisions on its operational and administrative activities without government involvement, including: declaration of significant and commercial discoveries; granting and renewal of petroleum licences; orders regarding prosecution, notices and offenses; administration of regulations respecting waste, environmental protection, resource conservation, pooling and unitization agreements; and, the exercise of emergency powers respecting safety, spills and conservation.

- Some decisions made by the C-NLOPB are subject to review and final approval by the federal and provincial Energy Ministers. These are known as Fundamental Decisions and include: the making of a Call for Bids and the issuance of petroleum interests; the issuance of orders directing an interest holder to drill a well or requiring the commencement, continuation, increase or suspension of production; and, approval of a Development Plan with respect to the choice of a production system, the level of resource recovery, and the pace and timing of a project.

- For each type of Fundamental Decision, one of the Energy Ministers has been granted Authority or Paramountcy, which is determined by a national oil self-sufficiency and security of supply test. Until this test is achieved, the Government of Canada has final approval over decisions on the pace and mode of exploration and the pace of production. Once achieved, the provincial Minister has paramountcy. Currently the Province has paramountcy, as the self-sufficiency and security of supply test has been met for the period January 1, 2011, to December 31, 2015.

- The C-NLOPB is also subject to Joint Ministerial Directives issued by both the federal and the provincial Energy Ministers in relation to: Fundamental Decisions; stop work orders.
issued by the C-NLOPB to any interest owner; public reviews; Benefits Plans; and, studies to be conducted by the C-NLOPB, and advice with respect to policy issues to be given by the C-NLOPB to the ministers.

- Amendments were made to the Accord Acts proclaimed in December 2014 respecting a comprehensive occupational health and safety regime for application to the offshore area. These amendments created a new Part III.1 to the Accord Acts and made the Service NL minister responsible for occupational health and safety the responsible ministry respecting administrative oversight. Federally, the Minister of Natural Resources Canada retains administrative oversight for Part III.1. Part III.1 for ministerial directives in relation to the development of guidelines and interpretation notes with respect to OHS matters and the implementation of any recommendations made by an auditor following an inquiry.

- Fundamental Decisions and Joint Ministerial Directives require a close working relationship between the C-NLOPB and both governments through their respective energy departments. OHS ministerial directives also require a close working relationship between the C-NLOPB, Service NL and the federal department of Natural Resources. The C-NLOPB is the primary point of contact between the governments and the petroleum project operators on matters within the C-NLOPB’s jurisdiction. However, the C-NLOPB is not involved in decisions which are exclusively the responsibility of either the federal or the provincial government, including:
  - Federal - the application of federal taxes; and, federal legislation of general application not specifically related to oil and gas (i.e., Fisheries Act, Canada Shipping Act and Immigration Act).
  - Provincial - the royalty regime and other provincial type revenues; and, provincial laws of general application having effect in the offshore.

Memoranda of Understanding
- The C-NLOPB has a number of Memoranda of Understanding with appropriate federal and provincial government departments and/or agencies, including:
  - The Provision of Environmental Services in the Offshore Area;
  - The Protection of Fisheries and Provision of Ocean Related Services;
  - Geoscientific Studies and Hydrocarbon Resource Assessment;
  - Marine Safety and the Provision of Related Services;
  - Implementation of Economic Growth and Development Provisions;
  - Occupational Health and Safety of Workers in the Newfoundland Offshore.

C-NLOPB Members
- The Accord Acts state that, of the seven required members of the C-NLOPB, three are to be appointed by the federal government, three by the provincial government, and the Chairman of the C-NLOPB is to be appointed by both governments. No member of the C-NLOPB shall, during the term of office, be employed in the Public Service of either Canada or the Province.
• The Chairman and members of the Board are appointed for terms of six years. On the expiration of a term of office, the Chair or a member is eligible for re-appointment for one or more further terms.

• Members of the C-NLOPB are subject to Conflict of Interest Guidelines established jointly by the federal Minister of Natural Resources Canada and the provincial Minister of Natural Resources.

• Current C-NLOPB Members are:
  o Scott Tessier, Chair & CEO (Joint Federal/Provincial Appointment - 2013)
  o Edward Williams, Vice Chair, (Joint Federal/Provincial Appointment - 2013)
  o Lidija Cicnjak-Chubbs (Federal Appointment – 2013)
  o Cynthia Hickman (Federal Appointment – 2013)
  o Conrad Sullivan (Federal Appointment – 2010)
  o Ed Drover, (Provincial Appointment -2009)
  o Vacant (Provincial Member)

Public Reviews
• The Accord Acts require the C-NLOPB, where it is in the public interest, to conduct a public review of any prospective development of offshore oil and gas resources. As such, the C-NLOPB has responsibility for the public review of Development and Benefits Plans and related Environmental and Socio-economic Impact Statements. The C-NLOPB may require a project proponent to submit a preliminary Development Plan, and as needed, an Environmental Impact Statement and a Socio-Economic Impact Statement, including a preliminary Canada-Newfoundland and Labrador Benefits Plan.

Prepared/approved by: F. Allen/W. Foote
Enhancing Newfoundland and Labrador through the promotion, exploration and development of our mineral and energy resources.
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Estimates 2015-16...................................................................... Tab 2
Detailed Explanatory Notes .................................................. Tab 3
Explanatory Notes.................................................................... Tab 4
   Professional Services
   Grants & Subsidies
## DEPARTMENT OF NATURAL RESOURCES
### PROGRAM FUNDING SUMMARY
#### FISCAL YEAR 2015-16
(Gross Expenditure)

<table>
<thead>
<tr>
<th></th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINISTER’S OFFICE</strong></td>
<td></td>
</tr>
<tr>
<td>Minister’s Office</td>
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</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>423,300</strong></td>
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<tr>
<td><strong>GENERAL ADMINISTRATION</strong></td>
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<tr>
<td>Executive Support</td>
<td>1,902,400</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>1,111,000</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td><strong>3,013,400</strong></td>
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<td>5,539,200</td>
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<tr>
<td>Mineral Lands</td>
<td>1,417,800</td>
</tr>
<tr>
<td>Mineral Development</td>
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<td><strong>ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT</strong></td>
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<td>Energy Policy</td>
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<tr>
<td>Petroleum Development</td>
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<td><strong>Subtotal</strong></td>
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Department of Natural Resources - Program Funding Summary*
Fiscal Year 2015-16

Royalties and Benefits 5,313,800
Minister's Office 423,300
Executive Support 1,902,400
Administrative Support 1,111,000
Geological Survey 5,539,200
Mineral Development 3,448,900
Mineral Lands 1,417,800
C-NLOPB 8,835,000
Energy Policy 5,190,800
Petroleum Development 1,945,600

*(excludes Energy Initiatives Capital)
# NATURAL RESOURCES

## EXECUTIVE AND SUPPORT SERVICES

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<tr>
<th></th>
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<tr>
<td><strong>CURRENT</strong></td>
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<td><strong>TOTAL: MINISTER'S OFFICE</strong></td>
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## GENERAL ADMINISTRATION

### CURRENT

#### 1.2.01 EXECUTIVE SUPPORT

Appropriations provide for the senior planning and direction of the Department, including the establishment and evaluation of policies and objectives.

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<td>1,826,700</td>
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</table>
## GENERAL ADMINISTRATION (Cont'd)

### CURRENT

#### 1.2.02. ADMINISTRATIVE SUPPORT

Appropriations provide for the information management activities of the Department of Natural Resources and the financial and operational activities of the Departments of Natural Resources and Fisheries and Aquaculture.

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<th>2014-15 Revised</th>
<th>Budget</th>
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### CAPITAL

#### 1.2.03. ADMINISTRATIVE SUPPORT

Appropriations provided for the purchase of tangible capital assets.

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<th>Item</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
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<td>Property, Furnishings and Equipment</td>
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<tr>
<td>Amount to be Voted</td>
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</tr>
<tr>
<td>Total: Administrative Support</td>
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<td>90,300</td>
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</tr>
</tbody>
</table>

TOTAL: GENERAL ADMINISTRATION 3,003,400 2,919,000 2,903,900

TOTAL: EXECUTIVE AND SUPPORT SERVICES 3,426,700 3,342,500 3,314,000
### NATURAL RESOURCES

#### MINERAL RESOURCE MANAGEMENT

<table>
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<tr>
<th>MINERAL RESOURCE MANAGEMENT</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

### 2.1.01. GEOLOGICAL SURVEY

Appropriations provide for a geological mapping and surveying program which provides geological maps, reports, mineral analysis and other information on all areas of the Province and promotion of the Province's mineral potential to the mining and investment community.

01. Salaries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
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<td>1,378,100</td>
<td>1,342,200</td>
<td>1,380,600</td>
</tr>
<tr>
<td>10. Grants and Subsidies</td>
<td>7,500</td>
<td>5,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

**Amount to be Voted**

| 02. Revenue - Provincial | 5,539,200 | 5,169,200 | 5,477,100 |
| (4,000) | - | (4,000) |

**Total: Geological Survey**

| 5,535,200 | 5,169,200 | 5,473,100 |

14.5
### MINERAL RESOURCE MANAGEMENT

**CURRENT**

#### 2.1.02. MINERAL LANDS

Appropriations provide for administration of the mineral land tenure system, monitoring and regulation of mineral exploration activity, regulation and management of the exploration and extraction of quarry materials, collection of diamond drill core and operation of the core storage program, liaising interdepartmentally on land-use and providing information and professional support on such matters to Government and external clients.

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$1,152,000</td>
<td>$1,162,600</td>
<td>$1,128,900</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>1,000</td>
<td>4,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>127,900</td>
<td>160,000</td>
<td>127,900</td>
</tr>
<tr>
<td>Supplies</td>
<td>51,900</td>
<td>51,900</td>
<td>51,900</td>
</tr>
<tr>
<td>Professional Services</td>
<td>7,000</td>
<td>100</td>
<td>7,000</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>77,000</td>
<td>657,000</td>
<td>687,000</td>
</tr>
<tr>
<td>Property, Furnishings and Equipment</td>
<td>1,000</td>
<td>-</td>
<td>1,000</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Amount to be Voted</td>
<td>$1,417,800</td>
<td>$2,035,600</td>
<td>$2,004,700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>(610,000)</td>
<td>$807,800</td>
<td>$2,035,600</td>
<td>$1,394,700</td>
</tr>
</tbody>
</table>
MINERAL RESOURCE MANAGEMENT

2.1.03. MINERAL DEVELOPMENT

Appropriations provide for technical monitoring and analysis of the mining industry, development and implementation of mineral policy, evaluations of potential mining properties, development and enforcement of the Mining Act, management of incentive programs for exploration and development, and management of orphaned and abandoned mine properties.

<table>
<thead>
<tr>
<th></th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salaries</strong></td>
<td>1,310,600</td>
<td>1,375,200</td>
<td>1,347,100</td>
</tr>
<tr>
<td><strong>Operating Accounts:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>4,600</td>
<td>6,600</td>
<td>4,600</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>118,100</td>
<td>88,000</td>
<td>118,100</td>
</tr>
<tr>
<td>Supplies</td>
<td>25,900</td>
<td>12,000</td>
<td>25,900</td>
</tr>
<tr>
<td>Professional Services</td>
<td>240,300</td>
<td>507,200</td>
<td>730,300</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>146,500</td>
<td>36,000</td>
<td>1,226,500</td>
</tr>
<tr>
<td>Property, Furnishings and Equipment</td>
<td>2,900</td>
<td>-</td>
<td>2,900</td>
</tr>
<tr>
<td><strong>Operating Accounts</strong></td>
<td>538,300</td>
<td>647,800</td>
<td>2,108,300</td>
</tr>
<tr>
<td><strong>Grants and Subsidies</strong></td>
<td>1,600,000</td>
<td>1,903,000</td>
<td>1,903,000</td>
</tr>
<tr>
<td><strong>Amount to be Voted</strong></td>
<td>3,448,900</td>
<td>3,926,000</td>
<td>5,358,400</td>
</tr>
<tr>
<td><strong>Total: Mineral Development</strong></td>
<td>3,448,900</td>
<td>3,926,000</td>
<td>5,358,400</td>
</tr>
<tr>
<td><strong>TOTAL: MINERAL RESOURCE MANAGEMENT</strong></td>
<td>9,791,900</td>
<td>11,130,800</td>
<td>12,226,200</td>
</tr>
<tr>
<td><strong>TOTAL: MINERAL RESOURCE MANAGEMENT</strong></td>
<td>9,791,900</td>
<td>11,130,800</td>
<td>12,226,200</td>
</tr>
</tbody>
</table>
ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT</strong></td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td><strong>CURRENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.01. ENERGY POLICY</td>
<td>Appropriations provide for the development, coordination, implementation, and evaluation of energy policies and strategic planning, the development and implementation of policy and procedures for the governance of the Provincial electricity industry, and the management of the onshore and offshore oil and gas sector through legislation and regulatory development and compliance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01. Salaries</td>
<td>1,352,000</td>
<td>1,123,500</td>
<td>1,340,300</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Employee Benefits</td>
<td>15,100</td>
<td>-</td>
<td>15,100</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>72,100</td>
<td>30,000</td>
<td>72,100</td>
</tr>
<tr>
<td>Supplies</td>
<td>24,300</td>
<td>6,000</td>
<td>24,300</td>
</tr>
<tr>
<td>Professional Services</td>
<td>424,800</td>
<td>425,000</td>
<td>924,800</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>42,000</td>
<td>65,000</td>
<td>42,000</td>
</tr>
<tr>
<td>Property, Furnishings and Equipment</td>
<td>10,500</td>
<td>500</td>
<td>10,500</td>
</tr>
<tr>
<td>02. Operating Accounts</td>
<td>588,800</td>
<td>526,500</td>
<td>1,088,800</td>
</tr>
<tr>
<td>10. Grants and Subsidies</td>
<td>3,250,000</td>
<td>2,950,000</td>
<td>3,110,000</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>5,190,800</td>
<td>4,600,000</td>
<td>5,539,100</td>
</tr>
<tr>
<td>Total: Energy Policy</td>
<td>5,190,800</td>
<td>4,600,000</td>
<td>5,539,100</td>
</tr>
</tbody>
</table>
ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT (Cont’d)

### 3.1.02. PETROLEUM DEVELOPMENT

Appropriations provide for the collaborative development and implementation of policy in support of petroleum development, the provision of geological, geophysical, and engineering services, and the identification, promotion, and management of Provincial petroleum resources.

| 01. Salaries | 1,165,500 | 1,077,200 | 1,119,000 |
| Operating Accounts |  |  |  |
| Employee Benefits | 13,600 | 8,000 | 13,600 |
| Transportation and Communications | 68,500 | 129,800 | 158,500 |
| Supplies | 12,600 | 136,900 | 112,600 |
| Professional Services | 75,700 | 156,700 | 250,700 |
| Purchased Services | 303,800 | 497,200 | 438,800 |
| Property, Furnishings and Equipment | 5,900 | 13,800 | 5,900 |
| 02. Operating Accounts | 480,100 | 942,400 | 980,100 |
| 10. Grants and Subsidies | 300,000 | 500,000 | 500,000 |
| Amount to be Voted | 1,945,600 | 2,519,600 | 2,599,100 |
| 02. Revenue - Provincial | (81,000) | - | - |
| Total: Petroleum Development | 1,864,600 | 2,519,600 | 2,599,100 |

### 3.1.03. CANADA/NEWFOUNDLAND AND LABRADOR OFFSHORE PETROLEUM BOARD

Appropriations provide for the Provincial share of the operating and capital costs of the Canada/Newfoundland and Labrador Offshore Petroleum Board, a portion of which is recovered from industry.

| 10. Grants and Subsidies |  |  | 8,850,800 |
| Amount to be Voted | 8,835,000 | 8,835,000 | 8,850,800 |
| 02. Revenue - Provincial | (6,626,300) | (6,626,300) | (6,638,200) |
| Total: Canada/Newfoundland and Labrador Offshore Petroleum Board | 2,208,700 | 2,208,700 | 2,212,600 |
ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

3.1.04. ROYALTIES AND BENEFITS

Appropriations provide for the administration of petroleum projects agreements and legislation, the development and analysis of royalty systems and project economics, the provision of policy advice and recommendations with respect to energy economic and market activity, the performance of audits of petroleum companies, the negotiation, assessment, implementation, and monitoring of industrial and employment benefits from major resource projects, and the promotion of the Province's supply and service capabilities and its research and development capabilities to national and international markets.

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>18,400</td>
<td>12,200</td>
<td>18,400</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>146,200</td>
<td>44,700</td>
<td>161,200</td>
</tr>
<tr>
<td>Supplies</td>
<td>23,500</td>
<td>13,900</td>
<td>24,000</td>
</tr>
<tr>
<td>Professional Services</td>
<td>2,561,700</td>
<td>252,000</td>
<td>2,949,500</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>139,300</td>
<td>205,200</td>
<td>143,300</td>
</tr>
<tr>
<td>Property, Furnishings and Equipment</td>
<td>7,200</td>
<td>3,800</td>
<td>9,700</td>
</tr>
</tbody>
</table>

| 02. Operating Accounts | 2,896,300 | 531,600 | 3,306,100 |
| 10. Grants and Subsidies | 30,000 | 30,000 | 30,000 |

| Amount to be Voted | 5,313,800 | 2,510,600 | 5,683,400 |
| 02. Revenue - Provincial | - | (128,200) | (81,000) |

Total: Royalties and Benefits | 5,313,800 | 2,382,400 | 5,602,400 |
ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT (Cont'd)

3.1.05. ENERGY INITIATIVES
Appropriations provide for an investment in Nalcor Energy, and/or its subsidiaries, in order to facilitate its participation in oil and gas activities and other energy projects.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>08. Loans, Advances and Investments</td>
<td>760,000,000</td>
<td>337,668,400</td>
<td>552,700,000</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>760,000,000</td>
<td>337,668,400</td>
<td>552,700,000</td>
</tr>
<tr>
<td>Total: Energy Initiatives</td>
<td>760,000,000</td>
<td>337,668,400</td>
<td>552,700,000</td>
</tr>
</tbody>
</table>

TOTAL: ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>774,577,900</td>
<td>349,379,100</td>
<td>568,653,200</td>
</tr>
</tbody>
</table>

TOTAL: ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

<table>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>774,577,900</td>
<td>349,379,100</td>
<td>568,653,200</td>
</tr>
</tbody>
</table>

TOTAL: DEPARTMENT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>787,796,500</td>
<td>363,852,400</td>
<td>584,193,400</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES

DETAILED EXPLANATORY NOTES TO THE ESTIMATES

2015-16
1.1.01 (A330) MINISTER'S OFFICE

This activity provides for the efficient operation of the Minister's office.

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>318,800 (f)</td>
<td>308,500 (a)</td>
<td>305,600</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>2,000</td>
<td>1,500 (b)</td>
<td>2,000</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>78,000</td>
<td>93,500 (c)</td>
<td>78,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>12,000</td>
<td>4,000 (d)</td>
<td>12,000</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>10,500</td>
<td>10,500</td>
<td>10,500</td>
</tr>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td>2,000</td>
<td>5,500 (e)</td>
<td>2,000</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>104,500</td>
<td>115,000</td>
<td>104,500</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>423,300</td>
<td>423,500</td>
<td>410,100</td>
</tr>
<tr>
<td>TOTAL MINISTERS OFFICE</td>
<td>423,300</td>
<td>423,500</td>
<td>410,100</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Salaries – Variance due to higher than anticipated salary costs associated with the Dept.’s Parliamentary Secretary’s Constituency Assistant.
(b) Employee Benefits – Variance due to lower than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.
(c) Transportation & Communications – Variance due to higher than anticipated international travel requirements during the year; in particular a trade mission to China as well as Energy meetings in Washington D.C.
(d) Supplies - Variance due to less than anticipated expenditures associated with office supplies (paper, magazine/newspaper subscriptions, and food items for working lunches).
(e) Property, Furnishings & Equipment - Variance due to higher than anticipated equipment expenditures during the year, primarily related to the purchase of a new shredder.

2015-16 Estimates to 2014-15 Budget
(f) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, as well as funding for any planned salary/step increases.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

1.2.01 (A331) EXECUTIVE SUPPORT - GENERAL ADMINISTRATION

This activity includes the offices of the Deputy Minister, Assistant Deputy Ministers, Executive Directors, and secretarial support. It provides for the planning and direction of the Department including the establishment and evaluation of policies and objectives to:

A. Ensure the statutory and contractual obligations are met and that Government policy is translated into action within divisions of the Department;
B. Ensure that divisions are administered effectively, having due regard for efficiency and fiscal responsibility;
C. Ensure that established policies and procedures are applied consistently and correctly; and,
D. Monitor the operations of the Departmental and institute improvements where necessary.

DEPUTY MINISTER – CHARLES BOWN
ASSOCIATE DEPUTY MINISTER – TRACY ENGLISH (ENERGY)

ADM’S – PAUL MORRIS (ENERGY POLICY), DAVID LIVERMAN (MINES), WES FOOTE (PETROLEUM DEVELOPMENT), PAUL CARTER (ROYALTIES &

EXECUTIVE DIRECTOR – IRON ORE INDUSTRY – WALTER PARSONS (MINES)

<table>
<thead>
<tr>
<th>1.2.01 (A331) EXECUTIVE SUPPORT</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>1,736,300 (d)</td>
<td>1,670,100 (a)</td>
<td>1,660,600</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>2,700</td>
<td>13,200 (b)</td>
<td>2,700</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>145,800</td>
<td>126,700 (c)</td>
<td>145,800</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Salaries – Variance due classification updates for three Executive level positions that were required during the year, and in which back payments were subsequently owed.
(b) Employee Benefits – Variance due to higher than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.
(c) Transportation & Communications – Variance due to savings as a result of reduced discretionary travel.

2015-16 Estimates to 2014-15 Budget
(d) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, as well as funding for any planned salary/step increases.

<table>
<thead>
<tr>
<th>1.2.01 (A331) EXECUTIVE SUPPORT (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office supplies, newspaper/magazine/periodicals subscriptions, bottled water, and food items for working lunches/meetings</td>
<td>6,300</td>
<td>16,900 (a)</td>
<td>6,300</td>
</tr>
<tr>
<td>Purchased Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rental and lease of office equipment (i.e. photocopiers), rental of meeting room facilities if required, printing services, advertising, on-site recycling and shredding services, and official entertainment.</td>
<td>8,800</td>
<td>25,500 (b)</td>
<td>8,800</td>
</tr>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office furniture and equipment as required.</td>
<td>2,500</td>
<td>6,200 (c)</td>
<td>2,500</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>166,100</td>
<td>188,500</td>
<td>166,100</td>
</tr>
<tr>
<td>TOTAL EXECUTIVE SUPPORT</td>
<td>1,902,400</td>
<td>1,858,600</td>
<td>1,826,700</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised

(a) Supplies - Variance due to higher than anticipated expenditures associated with office supplies (paper, magazine/newspaper subscriptions, and food items for working lunches).

(b) Purchased Services - Variance due to higher than anticipated purchased services expenditures such as rental and lease of office equipment (i.e. photocopiers), printing services, on-site recycling and shredding services, etc.

(c) Property, Furnishings & Equipment - Variance due to higher than anticipated property, furnishings, and equipment expenditures, primarily associated with the purchase of office chairs and audio/visual equipment.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

1.2.02 (A332) ADMINISTRATIVE SUPPORT - GENERAL ADMINISTRATION

This activity is a shared service which provides support for the Financial and General Operations activities for the Departments of Natural Resources, Forestry & Agrifoods, and Fisheries and Aquaculture. The Finance and General Operations Division is responsible for managing and controlling the financial and general operations functions of the Departments to ensure fiscal stewardship. The Division provides financial expertise, oversight, and strategic advice to the Deputy Ministers, Executive, and Program Directors on financial management and general operations functions in order to facilitate the delivery of programs and services and to enable the Departments to achieve their strategic and operational objectives.

This activity also comprises the Information Management Division for the Department of Natural Resources. The Information Management Division is responsible for providing leadership and direction in the development and implementation of Information Management (IM) policies and procedures. This division will ensure that IM policies are considered in planning, budgeting, and ongoing operations in the department.

DEPARTMENTAL CONTROLLER – PHILIP IVIMEY
DIRECTOR OF INFORMATION MANAGEMENT – RENEE PENDERGAST

<table>
<thead>
<tr>
<th>1.2.02 (A332) ADMINISTRATIVE SUPPORT</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>Salary for permanent and temporary staff and other employees, plus overtime and other earnings</td>
<td>950,800 (e)</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>Registration fees at conferences and seminars as well as costs associated with training</td>
<td>14,300</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>Employee travel, courier charges, freight charges and communication costs.</td>
<td>30,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>Office supplies, newspaper/magazine subscriptions, bottled water, and other miscellaneous office supplies.</td>
<td>46,900</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Salaries – Variance due to a vacancy within the Division during the year (Accounting Clerk II), as well as lower than anticipated overtime expenditures during the year.
(b) Employee Benefits – Variance due to lower than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.
(c) Transportation & Communications – Variance due to savings as a result of reduced discretionary travel.
(d) Supplies - Variance due to lower than anticipated expenditures associated with office supplies (i.e. paper, bottled water, regular day-to-day office supplies, etc.).

2015-16 Estimates to 2014-15 Budget
(e) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, as well as funding for any planned salary/step increases.

<table>
<thead>
<tr>
<th>1.2.02 (A332) ADMINISTRATIVE SUPPORT (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rental and lease of office equipment (i.e. photocopiers), rental of meeting room facilities if required, printing services, advertising, on-site recycling and shredding services, as well as file storage and retrieval services related to the operations of the Information Management Division.</td>
<td>66,200</td>
<td>84,000 (a)</td>
<td>66,200</td>
</tr>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office furniture and equipment for general operations.</td>
<td>2,800</td>
<td>5,000 (b)</td>
<td>2,800</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>160,200</td>
<td>123,500</td>
<td>160,200</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>1,111,000</td>
<td>970,900</td>
<td>1,087,200</td>
</tr>
<tr>
<td>02 Revenue – Provincial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues are related to refunds of invoices and other miscellaneous revenue</td>
<td>(10,000)</td>
<td>(800) (c)</td>
<td>(10,000)</td>
</tr>
<tr>
<td>TOTAL ADMINISTRATIVE SUPPORT</td>
<td>1,101,000</td>
<td>970,100</td>
<td>1,077,200</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES  
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised

(a) Purchased Services – Variance due to higher than anticipated Purchased Services expenditures, primarily related to training initiatives for Natural Resources employees that are arranged through Human Resources Secretariat - Organizational Development Division (i.e. training/meeting room facilities, etc.).

(b) Property, Furnishings & Equipment - Variance due to higher than anticipated property, furnishings, and equipment expenditures, primarily associated with the purchase of office chairs and other IT related equipment.

(c) Revenue – Provincial – Variance due to lower than anticipated revenues as a result of refunds of invoices, supplier credits, and other sources of miscellaneous revenue.

1.2.03 (A368) ADMINISTRATIVE SUPPORT – GENERAL ADMINISTRATION - (CAPITAL)

This activity provides funding for the purchase of Tangible Capital Assets such as vehicles and equipment for operating and program activities, as well as funding for Infrastructure.

<table>
<thead>
<tr>
<th>1.2.03 (A368) ADMINISTRATIVE SUPPORT (CAPITAL)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td>Provides funding for the purchase of Tangible Capital Assets as well as funding for Infrastructure projects</td>
<td>-</td>
<td>90,300 (a)</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>-</td>
<td>90,300</td>
<td>-</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>-</td>
<td>90,300</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL ADMINISTRATIVE SUPPORT (CAPITAL)</td>
<td>-</td>
<td>90,300</td>
<td>-</td>
</tr>
</tbody>
</table>

Explanation of variance:

2014-15 Budget to 2014-15 Revised

(a) Property, Furnishings & Equipment - Variance due to Vehicle Replacements required during the year; $90,300 for three Vehicle Replacements related to the Mines Branch.
The funding provided in this activity supports:

(1) The Regional Geology Section’s mapping program provides geological maps at a variety of scales that act as exploration guides for the mineral and petroleum industries and also serve as a base for regional land-use planning (e.g., land claims and parks assessments). Mapping is carried out to identify rock units that have particular exploration potential and is currently directed at parts of the Province that lack adequate map coverage. Projects for 2015 include: continued production of compilation maps and reports; continued mapping and analysis of rocks with base-metal potential in eastern Newfoundland; and bedrock mapping in Labrador to encourage mineral exploration.

(2) The Mineral Deposits Section carries out metallogenic studies to determine the mode of origin of mineral occurrences, and thereby provide guidelines for the discovery of new deposits by the mineral-exploration industry. A Mineral Occurrence Data System (MODS) provides a manual and computerized inventory of all known mineral occurrences in the Province. Projects for 2015 include continuing gold and base-metal studies in central, eastern and western Newfoundland, iron ore in Western Labrador, and uranium in eastern Labrador.

(3) The Geochemistry, Geophysics and Terrain Sciences Section produces: geochemical maps that identify for the mineral-exploration industry areas with high concentrations of metals indicative of mineral deposits; geophysical maps for the mineral-exploration industry of prospective areas; geological maps of overburden deposits and reports on the glacial history of the province that are used by mineral explorationists and land-use planners; an inventory of deposits of sand, gravel and bedrock quarries, used by the construction industry and municipal planners; geochemical analyses of rocks, soils, sediments and waters in support of Geological Survey’s field programs, and environmental agencies; evaluation of geological hazards for use in planning. Activities planned for 2015 include till geochemistry and mapping in Newfoundland, lake sediment geochemistry, aggregate mapping in Newfoundland and coastal erosion studies in Newfoundland and southern Labrador.

(4) The Geoscience Publications and Information Section provides ongoing scientific editing, copy editing and printing of Survey reports. Geological maps are prepared by the cartographic unit. An extensive collection of documents relating to the geology and mineral resources of Newfoundland and Labrador are maintained to provide services to industry and the general public. A computerized bibliographic service (GEOSCAN) is operated to provide direct access to all information documents. The Survey’s geoscientific databases and information on its documents collection are made available via the Survey’s website. The mineral potential of the Province is actively promoted and advice given to industry clients and the general public.
2.1.01 (A341) GEOLOGICAL SURVEY – MINERAL RESOURCE MANAGEMENT (CONT’D)

(5) The Geoscience Data Management section provides GIS support for the Geological Survey’s databases and the distribution of digital data and information to the Survey’s clients; develops data standards for mapping; develops and maintains a geoscience data archive. 2014 projects included archiving and conversion of legacy data; and continued development of the online Geoscience Atlas.

(6) The Director’s office provides administrative oversight for the Survey. It is responsible for financial administration (budgets, purchasing, disbursements), vehicle maintenance, storage and warehousing, field logistics (Newfoundland and Labrador), safety initiatives, personnel and overall direction of the Survey.

DIRECTOR – MARTIN BATTERSON

<table>
<thead>
<tr>
<th>2.1.01 (A341) GEOLOGICAL SURVEY – MINERAL RESOURCE MANAGEMENT</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>Salary for permanent and temporary staff and other employees, plus overtime and other earnings.</td>
<td>4,153,600 (d)</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td>4,091,500</td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>Registration costs associated with attending geoscientific conferences, workshops and seminars relating to promotion of the mineral potential of the Province, other departmental activities and professional development of staff.</td>
<td>27,500 (e)</td>
</tr>
</tbody>
</table>
Explanation of variance:

**2014-15 Budget to 2014-15 Revised**

(a) **Salaries** – Variance due to vacancies during year

(b) **Employee Benefits** – Variance due to higher than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.

**2015-16 Estimates to 2014-15 Budget**

(d) **Salaries** – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement and funding for any planned salary/step increases ($122,900), and an additional $64,600 that was re-profiled from a vacant Permanent position in 2.1.03 Mineral Development to fund a Temporary position under Geological Survey. These increases are partially offset by a ($125,400) reduction related to Government’s Attrition Management Initiative.

(e) **Employee Benefits** – Variance due to a re-alignment of Operating Funding to Employee Benefits, $22,500, from Transportation & Communications in order to meet operational requirements for 2015-16. Field work and projects vary from year to year and funds are reallocated among line objects based on planned projects.
## DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

### 2.1.01 (A341) GEOLOGICAL SURVEY – MINERAL RESOURCE MANAGEMENT (CONT’D)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Communications</td>
<td>650,500 (d)</td>
<td>486,700 (a)</td>
<td>706,400</td>
</tr>
<tr>
<td>Supplies</td>
<td>195,100</td>
<td>200,500 (b)</td>
<td>195,100</td>
</tr>
<tr>
<td>Professional Services</td>
<td>50,000 (c)</td>
<td>49,100 (c)</td>
<td>19,100</td>
</tr>
</tbody>
</table>

**Explanation of variance:**

2014-15 Budget to 2014-15 Revised

(a) Transportation & Communications - Variance due reduced discretionary travel as well as less helicopter usage related to field projects during the year.

(b) Supplies – Variance due to slightly higher than anticipated supply expenditures related to field projects including fuel, tools, etc.

(c) Professional Services - Variance due to higher than anticipated costs associated with translation and associated costs for China Mining, and to complete upgrades to the on-line geoscience atlas.
2015-16 Estimates to 2014-15 Budget

(d) Transportation & Communications - Variance due to a re-alignment of Operating Funding from Transportation & Communications to: Employee Benefits ($22,500), Professional Services ($30,900), and Grants &Subsidies ($2,500) in order to meet operational requirements for 2015-16. Field work and projects vary from year to year and funds are reallocated among line objects based on planned projects.

(e) Professional Services - Variance due to a re-alignment of Operating Funding to Professional Services, $30,900, from Transportation & Communications in order to meet operational requirements for 2015-16. Field work and projects vary from year to year and funds are reallocated among line objects based on planned projects.

<table>
<thead>
<tr>
<th>2.1.01 (A341) GEOLOGICAL SURVEY – MINERAL RESOURCE MANAGEMENT (CONT’D)</th>
<th>2015-16</th>
<th>2014-15</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purchased Services</strong></td>
<td>Costs associated with program delivery such as vehicle and equipment rental and maintenance, sample analyses, thin section preparation, micro-probe services, as well as costs directly associated with publication of maps and reports emanating from the field program, and storage space rented for the Geological Survey.</td>
<td>398,000</td>
<td>450,000 (a)</td>
</tr>
<tr>
<td><strong>Property, Furnishings &amp; Equipment</strong></td>
<td>Furniture and equipment as required.</td>
<td>57,000</td>
<td>110,000 (b)</td>
</tr>
<tr>
<td><strong>02 Operating Accounts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10 Grants and Subsidies</strong></td>
<td>Funding provided for grants to the Canadian Institute of Mining, Metallurgy, and Petroleum (CIM) to cover a portion of the Annual Review of Activities luncheon, the Geological Association of Canada – Newfoundland and Labrador Section (GAC-NL) in support of its Annual Meeting and field trip, and the Canadian Quaternary Association (CANQUA) in support of its National biennial meeting in St. John’s.</td>
<td>7,500 (d)</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Amount to be Voted</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>02 Revenue – Provincial</strong></td>
<td>Revenue related to the sale of publications.</td>
<td>(4,000)</td>
<td>- (c)</td>
</tr>
<tr>
<td><strong>TOTAL GEOLOGICAL SURVEY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Purchased Services - Variance due to higher than anticipated purchased services expenditures during the year
(b) Property, Furnishings & Equipment - Variance due to the purchase of an Unmanned Aerial Vehicle (UAV) during the year which was required for field work - mapping, aerial pictures/video, etc.
(c) Revenue – Provincial – Variance due to nil revenue associated with the sale of publications and geological maps.

2015-16 Estimates to 2014-15 Budget
(d) Grants and Subsidies - Variance due to a re-alignment of Operating Funding to Grants & Subsidies, $2,500, from Transportation & Communications in order to meet operational requirements for 2015-16. Funding required for Canadian Quaternary Association – $2,500 Grant in support of Biennial Meeting in St. John’s in 2015.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

2.1.02 (A342) MINERAL LANDS – MINERAL AND QUARRY MATERIALS RESOURCE MANAGEMENT

Provides for the administration of mineral and quarry land tenure. Legislation includes the Mineral Act, the Quarry Materials Act, the Mineral Holdings Impost Act, the Undeveloped Mineral Areas Act and private mineral rights legislation. Delivers policies and programs related to mineral exploration and quarry activities including the issuance of exploration licenses, quarry materials exploration licenses, exploration approvals for both mineral and quarry exploration activities, mining leases, quarry leases, surface leases, quarry permits, subordinate quarry permits and beach permits for all mining and quarry operations. Liaises with other government agencies in land-use matters and co-ordinates the Department's response and position for land-use regulations. Manages the core storage program and maintains six regional core storage libraries in St. John's, Pasadena, Buchans, Springdale, Baie Verte, and Goose Bay. Manages quarry resources in the Province through quarry-inspection offices in Grand Falls-Windsor, Pasadena, St. John’s and through existing mines offices in Goose Bay and Wabush. Manages mineral exploration activities through mineral exploration site inspections from the St. John’s office.

DIRECTOR – KEVIN SHEPPARD

<table>
<thead>
<tr>
<th>2.1.02 (A342) MINERAL LANDS</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>Salary for permanent staff and other employees, plus overtime and other earnings.</td>
<td>1,152,000 (d)</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>Registration fees for conferences, seminars, symposia, professional registration, and professional associations.</td>
<td>1,000</td>
</tr>
<tr>
<td>Transportation and</td>
<td>Employee travel, courier, freight and communication costs. Includes helicopter costs associated with the core storage collection program and mineral exploration site inspections.</td>
<td>127,900</td>
</tr>
<tr>
<td>Communications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>Map reproduction materials, stationery, consumables and related office supplies; vehicle operations; field supplies including gasoline, propane, food and laboratory supplies related to the operation of equipment in the core storage libraries; field supplies including gasoline related to quarry site inspections as well as mineral exploration site inspections. Technical journals and professional publications and subscriptions.</td>
<td>51,900</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

**2014-15 Budget to 2014-15 Revised**

(a) Salaries – Variance due to overtime costs associated with quarry inspections, field work & inspections of mineral exploration sites and mining lease boundaries.

(b) Employee Benefits – Variance due to higher than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.

(c) Transportation & Communications – Variance due to higher than anticipated helicopter costs for field projects during the year.

**2015-16 Estimates to 2014-15 Budget**

(d) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, funding for any planned salary/step increases, offset by a reduction of $10,800 related to Government’s Attrition Management Initiative.

<table>
<thead>
<tr>
<th>2.1.02 (A342) MINERAL LANDS (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision for charges</td>
<td>7,000</td>
<td>100 (a)</td>
<td>7,000</td>
</tr>
<tr>
<td>associated with Mineral Rights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjudication Board to hear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grievances filed under 39(2) of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Mineral Act.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repair and maintenance of office</td>
<td>77,000 (e)</td>
<td>657,000 (b)</td>
<td>687,000</td>
</tr>
<tr>
<td>equipment, field equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(including vehicles and trailers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and equipment in the core storage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>libraries; vehicle rental and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>accommodations (including house</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rental for the core storage program;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>printing, publication (including</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mineral Act notices in the NL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gazette), advertising and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moneris fees (online staking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>transactions).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, Furnishings &amp;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>1,000</td>
<td>- (c)</td>
<td>1,000</td>
</tr>
<tr>
<td>Furniture and equipment as required.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>265,800</td>
<td>873,000</td>
<td>875,800</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>1,417,800</td>
<td>2,035,600</td>
<td>2,004,700</td>
</tr>
<tr>
<td>02 Revenue – Federal</td>
<td>(610,000)</td>
<td>- (d)</td>
<td>(610,000)</td>
</tr>
<tr>
<td>Federal Revenue recoverable from</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>compensation paid to companies</td>
<td>807,800</td>
<td>2,035,600</td>
<td>1,394,700</td>
</tr>
<tr>
<td>relinquishing mineral rights.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL MINERAL LANDS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Professional Services – Variance due to less than anticipated expenditures related to the Mineral Rights Adjudication Board associated with hearings related to grievances filed under the Mineral Act.
(b) Purchased Services - Variance due to less than anticipated purchased services expenditures such as repairs and maintenance of vehicles, as well as Moneris fees associated with the Department’s online claim staking system.
(c) Property, Furnishings & Equipment - Variance due to less than anticipated property, furnishings, and equipment requirements during the year.
(d) Revenue – Federal - Variance due to the Federal Revenue related to compensation paid to companies relinquishing mineral rights in the Mealy Mountains National Park not being received in 2014-15. Any compensation paid is recoverable in its entirety from the Federal Government as part of the Land Transfer agreement establishing the Mealy Mountains National Park Reserve and will be received from the Federal Government in 2015-16.

2015-16 Estimates to 2014-15 Budget
(e) Purchased Services - Variance due to the removal of $610,000 budgeted in 2014-15 for compensation to companies relinquishing mineral rights in the Mealy Mountains National Park. Funds were paid in 2014-15.
2.1.03 (A343) MINERAL DEVELOPMENT – MINERAL RESOURCE MANAGEMENT

The Mineral Development Division is responsible for the administration and implementation of the Mining Act and associated regulations which govern all aspects of mining projects from planning, development and operations through to closure and rehabilitation. It conduct reviews of Development Plans, Rehabilitation and Closure Plans, performs assessments of Financial Assurance Proposals, and manages associated securities. The Division is also responsible for the management of closure and rehabilitation of all orphaned and abandoned mine sites.

The Division is responsible for the technical and economic analysis of the mineral industry in the Province including the monitoring and analysis of all aspects of individual mining operations, new and proposed mineral developments and the collection of technical, economic and statistical data on the mining industry in general and on individual mining operations. The Division carries out research and analysis related to mineral policy, mineral statistics, taxation, land use and general government policy matters affecting mining and mineral exploration. Other Government departments and federal agencies regularly call upon the Division to provide analysis and advice regarding financial support or assistance to mining projects.

The Division also provides financial assistance and guidance to independent prospectors, junior exploration companies and the dimension stone industry.

DIRECTOR - ALEX SMITH

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>Salary for permanent staff, plus overtime and other earnings.</td>
<td>1,310,600 (c)</td>
<td>1,375,200 (a)</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>Conference, professional development seminars, symposium registration, training, and professional membership fees.</td>
<td>4,600</td>
<td>6,600 (b)</td>
</tr>
</tbody>
</table>
EXPLANATION OF VARIANCE:

2014-15 BUDGET TO 2014-15 REVISED

(a) Salaries – Variance due to salary payments (Severance & Annual/Paid Leave) associated with the retirement of a Manager of Mineral Industry Analysis during the year, partially offset by savings from a vacant Mineral Industry Analyst II position during the year.

(b) Employee Benefits – Variance due to higher than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.

2015-16 ESTIMATES TO 2014-15 BUDGET

(c) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement and funding for any planned salary/step increases, $40,400; offset by a reduction of ($12,300) related to Government’s Attrition Management Initiative and a reduction of ($64,600) that was re-profiled from a vacant Permanent position in Mineral Development to 2.1.01 Geological Survey to fund a Temporary position.
### 2.1.03 (A343) MINERAL DEVELOPMENT (CONT’D)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Communications</td>
<td>Employee travel, courier and freight charges and communications costs.</td>
<td>118,100</td>
<td>86,000 (a)</td>
<td>118,100</td>
</tr>
<tr>
<td>Supplies</td>
<td>Subscription and purchase of reference materials, technical journals, mining magazines, protective clothing, field equipment, office and vehicle supplies.</td>
<td>25,900</td>
<td>12,000 (b)</td>
<td>25,900</td>
</tr>
<tr>
<td>Professional Services</td>
<td>Funding is required to address contracting expertise in connection with existing or potential mineral developments, specifically; Voisey's Bay, Long Harbour Hydromet plant construction, Julienne Lake and Wabush Mines. Funding is also required for additional requirements related to professional and technical advice that may emerge during the course of the year. Funding is also required for consultants related to implementation of a program of regular inspection and maintenance of dams at orphaned and abandoned mines and for design and monitoring of repairs to dams at Gullbridge, Whalesback and Rambler.</td>
<td>240,300 (e)</td>
<td>507,200 (c)</td>
<td>730,300</td>
</tr>
<tr>
<td>Purchased Services</td>
<td>Vehicle repairs, printing services, proactive promotion of mineral development, as well as abandoned mine safety and mine reclamation and rehabilitation expenditures (i.e. Rambler and Whalesback)</td>
<td>146,500 (f)</td>
<td>36,000 (d)</td>
<td>1,226,500</td>
</tr>
</tbody>
</table>
Explanation of variance:

**2014-15 Budget to 2014-15 Revised**

(a) **Transportation & Communications** - Variance due to lower than anticipated travel requirements during the year as a result of reduced discretionary travel.

(b) **Supplies** – Variance due to lower than anticipated expenditures associated with office supplies (i.e. regular day-to-day office supplies, subscriptions, professional journals & publications, etc.)

(c) **Professional Services** - Variance due to less than anticipated expenditures related to repairs at Gullbridge, Whalesback & Rambler Dams during the year.

(d) **Purchased Services** - Variance due to less than anticipated expenditures related to repairs at Gullbridge, Whalesback & Rambler Dams during the year.

**2015-16 Estimates to 2014-15 Budget**

(e) **Professional Services** - Variance due to removal of funding that was approved in 2014-15 to complete repairs at Gullbridge Dam ($80,000) and funding to complete necessary repairs of Whalesback and Rambler Dams ($410,000).

(f) **Purchased Services** - Variance due to removal of funding that was approved in 2014-15 to complete repairs at Gullbridge Dam ($400,000) and funding to complete necessary repairs of Whalesback and Rambler Dams ($700,000), plus an additional $20,000 approved in Budget 2015-16 for Orphaned & Abandoned Mines.
### DEPARTMENT OF NATURAL RESOURCES
#### DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

<table>
<thead>
<tr>
<th>2.1.03 (A343) MINERAL DEVELOPMENT (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td>2,900</td>
<td>- (a)</td>
<td>2,900</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>538,300</td>
<td>647,800</td>
<td>2,108,300</td>
</tr>
<tr>
<td>10 Grants &amp; Subsidies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local prospectors and junior exploration companies play a key role in advancing exploration expenditures in the Province. Through the Mineral Incentive Program (i) funding is provided to assist prospectors undertake grassroots activities, promote their finds to the exploration industry, receive technical and geological support through Prospector Resources Rooms and provide opportunities to promote the prospecting industry; and (ii) funding is provided to junior exploration companies to assist them to undertake drilling, grassroots and advanced geosciences activity in the Province. The program consists of three components; Prospector’s Assistance and Junior Company Exploration Assistance.</td>
<td>1,600,000 (b)</td>
<td>1,903,000</td>
<td>1,903,000</td>
</tr>
</tbody>
</table>

**Explanation of variance:**

**2014-15 Budget to 2014-15 Revised**

(a) Property, Furnishings & Equipment - Variance due to less than anticipated property, furnishings, and equipment requirements during the year.

**2015-16 Estimates to 2014-15 Budget**

(b) Grants and Subsidies - Variance due to a reduction of funding for the Mineral Incentive Program ($303,000) related to Government Reduction Measures.
3.1.01 (A344) ENERGY POLICY – ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

GOAL: To develop, coordinate and monitor provincial energy policy and national and international energy policy, monitoring and negotiations

KEY ACTIVITIES: The Branch is responsible for: (1) ensuring that policies and regulations position the province’s electricity industry to continue to provide reliable service at fair and reasonable rates to provincial consumers, to generate provincial benefits through the development of publicly controlled electricity resources including new renewable resources and in future, to participate actively in external electricity markets; (2) regulatory development and compliance for the onshore and offshore oil and gas industry including oversight and management of the onshore petroleum land tenure system and the offshore petroleum sector through the Atlantic Accord and the CNLOPB; (3) the development and coordination of energy policy and strategic planning through the implementation and monitoring of Energy Plan policies.

DIRECTORS: ROB BATES (POLICY, PLANNING & COORDINATION), FRED ALLEN (REGULATORY AFFAIRS), COREY SNOOK (A) (ELECTRICITY AND ALTERNATIVE ENERGY)

<table>
<thead>
<tr>
<th>3.1.01 (A344) ENERGY POLICY</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>1,352,000 (e)</td>
<td>1,123,500 (a)</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>15,100</td>
<td>- (b)</td>
</tr>
<tr>
<td>Transportation and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications</td>
<td>72,100</td>
<td>30,000 (c)</td>
</tr>
<tr>
<td>Supplies</td>
<td>24,300</td>
<td>6,000 (d)</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Salaries – Variance due to vacancies within the Division during the year (Director, 2 Policy Planning & Research Analysts, and a Policy Planning & Development Specialist).
(b) Employee Benefits – Variance due to lower than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.
(c) Transportation & Communications – Variance due to lower than anticipated travel expenditures as a result of reduced discretionary travel.
(d) Supplies - Variance due to lower than anticipated expenditures associated with office supplies (i.e. regular day-to-day office supplies, subscriptions, professional journals & publications, etc.)

2015-16 Estimates to 2014-15 Budget
(e) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, as well as funding for any planned salary/step increases
### DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

<table>
<thead>
<tr>
<th>3.1.01 (A344) ENERGY POLICY (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is provided for activities undertaken by the Energy Policy, Planning and Coordination Division for in-depth analysis of energy policy issues as they affect, or are affected by, the province’s energy sector and to ensure the Government is fully informed on provincial, regional, national and international energy issues. Funding is provided for activities undertaken by Regulatory Affairs Division in the development of Framework Regulations under FORRI - The Frontier and Offshore Regulatory Renewal Initiative. Funding is provided for activities undertaken by Electricity and Alternative Energy Division for specialized consulting expertise for the development and implementation of policy options related to the electricity industry and for analysis of electricity sector developments in other jurisdictions.</td>
<td>424,800 (d)</td>
<td>425,000 (a)</td>
</tr>
<tr>
<td><strong>Purchased Services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rental and lease of office equipment (i.e. photocopiers), rental of office space and rental of meeting room facilities if required, advertising, on-site recycling and shredding services, and official entertainment. Printing and related services for various energy related reports and documents.</td>
<td>42,000</td>
<td>65,000 (b)</td>
</tr>
<tr>
<td><strong>Property, Furnishings &amp; Equipment</strong></td>
<td>Furniture and equipment as required.</td>
<td>10,500</td>
</tr>
<tr>
<td><strong>02 Operating Accounts</strong></td>
<td>588,800</td>
<td>526,500</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Professional Services - Variance due to lower than anticipated professional services expenditures during the year, primarily attributable the Electricity System review undertaken during the year costing less than originally anticipated.
(b) Purchased Services - Variance due to In-House Staff Training courses that were provided during the year on Power System Basics for Non-Engineers.
(c) Property, Furnishings & Equipment - Variance due to less than anticipated property, furnishings, and equipment requirements during the year.

2015-16 Estimates to 2014-15 Budget
(d) Professional Services - Variance due to removal of funding approved in 2014-15 for the Electricity System review ($700,000) offset by $200,000 approved in Budget 2015-16 related to professional services requirements associated with preparation for interconnection with the North American electricity grid through Muskrat Falls.

<table>
<thead>
<tr>
<th>3.1.01 (A344) ENERGY POLICY (CONT'D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Grants &amp; Subsidies</td>
<td>3,250,000 (b)</td>
<td>2,950,000 (a)</td>
<td>3,110,000</td>
</tr>
<tr>
<td>Funding is provided for subsidies for isolated diesel powered communities, and funding related to the legal obligations of the CF(L)Co Trust Agreement.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>5,190,800</td>
<td>4,600,000</td>
<td>5,539,100</td>
</tr>
<tr>
<td>TOTAL ENERGY POLICY</td>
<td>5,190,800</td>
<td>4,600,000</td>
<td>5,539,100</td>
</tr>
</tbody>
</table>

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Grants and Subsidies - Variance due to less than anticipated expenditures associated with the CFLCo Trust Agreement for 2014-15 ($610,000 Budget - $450,000 spent).

2015-16 Estimates to 2014-15 Budget
(b) Grants and Subsidies - Variance due to reduced requirements related to the CFLCo Trust Agreement for 2015-16 (2014-15 Budget = $610,000 vs. 2015-16 Budget = $350,000, for a reduction of $260,000), as well as additional funding ($400,000) related to the increased costs of Diesel Subsidy Grants for isolated diesel-powered communities.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

3.1.02 (A345) PETROLEUM DEVELOPMENT - ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT

GOAL: To develop, implement, monitor and evaluate provincial petroleum policy through promoting, regulating, managing and facilitating the identification, exploration, development and value-added processing of provincial petroleum resources.

KEY ACTIVITIES: Provision of quality geological, geophysical, and engineering services. Review and analysis of onshore and offshore resource management decisions. Administers and manages onshore and offshore (with C-NLOPB) petroleum resources. Develops and amends legislation governing provincial petroleum resources. Promotes petroleum exploration, development, production and processing opportunities.

DIRECTORS: KEITH HYNES (PETROLEUM ENGINEERING), JOVAN PETROVIC (PETROLEUM GEOSCIENCE), DARRELL SPURRELL (MARKETING & PROMOTION)

<table>
<thead>
<tr>
<th>3.1.02 (A345) PETROLEUM DEVELOPMENT</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>1,165,500 (d)</td>
<td>1,077,200 (a)</td>
<td>1,119,000</td>
</tr>
<tr>
<td>Operating Accounts:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Benefits</td>
<td>13,600</td>
<td>8,000 (b)</td>
<td>13,600</td>
</tr>
<tr>
<td>Transportation and Communications</td>
<td>68,500 (e)</td>
<td>129,800 (c)</td>
<td>158,500</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Salaries – Variance due to vacancies within the Division during parts of the year (Director & Manager).
(b) Employee Benefits – Variance due to lower than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.
(c) Transportation & Communications – Variance due to lack of exploration activity onshore in western NL this fiscal year resulting in fewer well site field trips and reduction in promotional events attended resulting in lower travel expenses.

2015-16 Estimates to 2014-15 Budget
(d) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, as well as funding for any planned salary/step increases
(e) Transportation & Communications – Variance due to removal of funding approved in 2014-15 related to Geoscience Initiatives ($90,000).
### 3.1.02 (A345) PETROLEUM DEVELOPMENT (CONT’D)

<table>
<thead>
<tr>
<th>Supplies</th>
<th>Office supplies, subscriptions, well logs, professional journals and special reports, as well as special inspection and testing equipment. Funds are also requested for photographic supplies, books (oil and gas related publications) printing and stationary supplies, and data processing supplies, software purchases and software maintenance agreements. Funds will also be used to purchase booth supplies at various promotional events and personal protective equipment required for well site visits.</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12,600 (d)</td>
<td>136,900 (a) 112,600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional Services</th>
<th>Funding is requested for consulting services required to provide engineering, geoscience, legal, and other professional support services to this division in support of the Department's petroleum resource policy and advice responsibilities for exploration, development and production of provincial onshore and offshore resources.</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>75,700 (e)</td>
<td>156,700 (b) 250,700</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purchased Services</th>
<th>The Department supports provincial efforts to promote the emerging petroleum sector by participating in key local, national and international trade shows, exhibits, conferences, seminars and other venues. Funding is therefore required for related expenditures such as: booth space rental; event promotion; equipment rentals; laboratory tests; core storage and rental fees; and the production, distribution and delivery of related promotional materials in a wide variety of mediums, as well as production of technical reports. Training related to oversight of oil and gas activities and software applications used for assessment and interpretation of oil and gas data. The maintenance costs related to these software applications are also funded.</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>303,800 (f)</td>
<td>497,200 (c) 438,800</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Supplies – Variance due to higher than anticipated supply expenditures related to geoscience initiatives.
(b) Professional Services – Variance due to lower than anticipated professional services expenditures related to geoscience initiatives.
(c) Purchased Services - Variance due to higher than anticipated purchased services expenditures related to exhibition management services to assist with booth storage, assembly, shipment, setup and logistic support at various trade shows.

2015-16 Estimates to 2014-15 Budget
(d) Supplies – Variance due to removal of funding approved in 2014-15 related to Geoscience Initiatives ($100,000).
(e) Professional Services – Variance due to removal of funding approved in 2014-15 related to Geoscience Initiatives ($175,000).
(f) Purchased Services - Variance due to removal of funding approved in 2014-15 related to Geoscience Initiatives ($135,000).
<table>
<thead>
<tr>
<th>3.1.02 (A345) PETROLEUM DEVELOPMENT (CONT’D)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>2014-15 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, Furnishings &amp; Equipment</td>
<td>5,900</td>
<td>13,800 (a)</td>
<td>5,900</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>480,100</td>
<td>942,400</td>
<td>980,100</td>
</tr>
<tr>
<td>10 Grants &amp; Subsidies</td>
<td>300,000 (b)</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>1,945,600</td>
<td>2,519,600</td>
<td>2,599,100</td>
</tr>
<tr>
<td>02 Revenue – Provincial</td>
<td>(81,000) (c)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL PETROLEUM DEVELOPMENT</td>
<td>1,864,600</td>
<td>2,519,600</td>
<td>2,599,100</td>
</tr>
</tbody>
</table>

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Property, Furnishings & Equipment - Variance due to higher than anticipated property, furnishings, & equipment expenditures associated with new employee office furnishings that were required as a result of ergonomic assessments.

2015-16 Estimates to 2014-15 Budget
(b) Grants and Subsidies - Variance due to removal of funding approved in 2014-15 related to Geoscience Initiatives ($500,000) offset by the approval of $300,000 in Budget 2015-16 for the Hydraulic Fracturing Review Panel.
(c) Revenue – Provincial - Variance due to a re-alignment of Revenue from 3.1.04 Royalties & Benefits to Petroleum Development related to revenues from fees for Oil & Gas trade shows and exhibitions - Revenue should have been moved in 2014-15 when all expenditures related to Oil & Gas trade shows and exhibitions were moved from 5.1.04 Royalties & Benefits to Petroleum Development.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

3.1.03 (A347) CANADA-NEWFOUNDLAND & LABRADOR OFFSHORE PETROLEUM BOARD

The Canada Newfoundland & Labrador Offshore Petroleum Board CNLOPB is the joint management agency established by the Parliament of Canada and the Legislature of Newfoundland and Labrador to administer provisions of the Canada Newfoundland Atlantic Accord Implementation Acts. The CNLOPB is responsible for public reviews of petroleum project development and Benefits Plans and related Environmental and Socio economic Impact Statements. In general terms, CNLOPB administers the day to day petroleum activities in the Newfoundland and Labrador offshore area including: exploration; development; production; and conservation. The CNLOPB also ensures that these activities occur in a safe and environmentally responsible manner. Without reference to, or the involvement of, either government, the CNLOPB can make operational and administrative decisions such as: declaration of significant and commercial discoveries; granting and renewal of petroleum licences; orders regarding prosecution, notices and offences; administration of regulations respecting waste, environmental protection, resource conservation, pooling and unitization agreements, and the exercise of emergency powers respecting safety, spills and conservation.

The federal and provincial governments make equal annual contributions towards the C-NLOPB's gross annual budget. In addition, based on guidelines established during fiscal 1999-00, the CNLOPB can recover up to 75% of its operating costs as activity based fees charged to petroleum companies offshore. The CNLOPB uses funds collected from these companies to either reduce its periodic draws against federal and provincial contributions and/or increase related revenues back proportionally to both the federal and provincial governments.

ASSOCIATE DEPUTY MINISTER – TRACY ENGLISH (ENERGY)

<table>
<thead>
<tr>
<th>3.1.03(A347) CANADA-NEWFOUNDLAND &amp; LABRADOR OFFSHORE PETROLEUM BOARD</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Grants &amp; Subsidies</td>
<td>Grant for the Canada-Newfoundland &amp; Labrador Offshore Petroleum Board</td>
<td>8,835,000 (c)</td>
<td>8,835,000 (a)</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>8,835,000</td>
<td>8,835,000</td>
<td>8,850,800</td>
</tr>
<tr>
<td>02 Revenue – Provincial</td>
<td>Revenue from Board’s recovery of operating costs from Industry</td>
<td>(6,626,300)</td>
<td>(6,626,300) (b)</td>
</tr>
<tr>
<td>TOTAL CANADA-NEWFOUNDLAND &amp; LABRADOR OFFSHORE PETROLEUM BOARD</td>
<td>2,208,700</td>
<td>2,208,700</td>
<td>2,212,600</td>
</tr>
</tbody>
</table>
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Grants and Subsidies – Variance due a miscellaneous budget adjustment to the CNLOPB’s Budget to bring the Board’s Provincial Budget in line with the Federal Budget, as the Board’s budget is cost-shared 50/50 Provincial/Federal.
(b) Revenue – Federal - Variance due a miscellaneous budget adjustment to the CNLOPB’s Budget to bring the Board’s Provincial Budget in line with the Federal Budget, as the Board’s budget is cost-shared 50/50 Provincial/Federal.

2015-16 Estimates to 2014-15 Budget
(c) Grants and Subsidies – Variance due a miscellaneous budget adjustment to the CNLOPB’s Budget to bring the Board’s Provincial Budget in line with the Federal Budget, as the Board’s budget is cost-shared 50/50 Provincial/Federal.
(d) Revenue – Federal - Variance due a miscellaneous budget adjustment to the CNLOPB’s Budget to bring the Board’s Provincial Budget in line with the Federal Budget, as the Board’s budget is cost-shared 50/50 Provincial/Federal.
DEPARTMENT OF NATURAL RESOURCES  
DETALIED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016  

3.1.04 (A348) ROYALTIES & BENEFITS – ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT  

GOAL: To promote, monitor and implement relevant petroleum sector strategies and policies to maximize both fiscal and industrial benefits from oil and gas and other major developments and provide overall energy economic advice for resource management decisions.  

KEY ACTIVITIES: The development, assessment and monitoring of fiscal and energy policies, legislation and regulations as they relate to oil and gas development, as well as the industrial and employment benefits and related spin-off business opportunities from major resource development projects. More specifically: the administration of petroleum projects agreements and legislation; the development and analysis of royalty systems and project economics; the provision of policy advice and recommendations including the provision of advice with respect to energy economic and market activity and matters related to energy supply and demand; the performance of audits of petroleum companies for compliance with contractual arrangements and legislation; the negotiation, implementation and monitoring of industrial and employment benefits from major resource projects; developing Government’s negotiation strategies in consultation with Nalcor; continually assessing the province’s industrial capacity and competitiveness; primary contact with the CNLOPB with respect to all benefits-related matters; and liaises with industry partners and other Government Departments with respect to benefits-related issues.  

DIRECTORS: WAYNE ANDREWS (ENERGY ECONOMICS), LES BEAUDDIN (A) (ROYALTIES), ROB MCGRATH (BENEFITS)  

<table>
<thead>
<tr>
<th>3.1.04 (A348) ROYALTIES &amp; BENEFITS</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 Salaries</td>
<td>2,387,500 (e)</td>
<td>1,948,800 (a)</td>
</tr>
<tr>
<td>Salary for permanent and temporary staff, plus other earnings.</td>
<td></td>
<td>2,347,300</td>
</tr>
</tbody>
</table>

Operating Accounts:  

<table>
<thead>
<tr>
<th>Employee Benefits</th>
<th>Conference and course registration fees. Professional development training is required to educate staff in the areas of: petroleum fiscal systems; industry accounting practices and auditing techniques; petroleum valuation techniques; and, petroleum economics. Attending conferences is required to maintain knowledge of recent developments in the energy industry.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-16 Estimates</td>
<td>18,400</td>
</tr>
<tr>
<td>2014-15 Revised Budget</td>
<td>12,200 (b)</td>
</tr>
<tr>
<td>2015-16 Estimates</td>
<td>18,400</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised

(a) Salaries – Variance due to vacancies in audit positions in the Royalties Division, as well as vacancies in the Energy Economics and Benefits Divisions during the year.

(b) Employee Benefits – Variance due to lower than anticipated expenditures associated with fees for seminars and conferences, as well as membership fees.

2015-16 Estimates to 2014-15 Budget

(c) Salaries – Variance due to budgeted salary increases for 2015-16 as per the Collective Agreement, funding for any planned salary/step increases, as well as a reduction of $45,800 related to Attrition Management.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation and Communications</td>
<td>Employee travel, courier charges, freight charges and communication costs. Travel is required: to attend negotiation or consultation sessions with other provincial and federal governments, energy industry companies and other industry officials to discuss issues related to provincial petroleum and mining projects; to meet with other petroleum monitoring agencies to discuss issues of common concern; to perform field audits related to provincial petroleum projects; and to attend training courses and conferences.</td>
<td>146,200 (c)</td>
<td>44,700 (a)</td>
</tr>
<tr>
<td>Supplies</td>
<td>Purchase books, subscriptions and miscellaneous office supplies. This would include specialized petroleum industry subscriptions related to issues that are required to effectively monitor and maximize provincial fiscal and industrial benefits and to provide advice on resource management decisions.</td>
<td>23,500 (d)</td>
<td>13,900 (b)</td>
</tr>
</tbody>
</table>
Explanation of variance:

**2014-15 Budget to 2014-15 Revised**
(a) **Transportation & Communications** – Variance due to less than anticipated travel requirements during the year (commercial negotiations funding that did not get used along with some out of province travel that did not occur).
(b) **Supplies** - Variance due to lower than anticipated expenditures associated with office supplies (i.e. regular day-to-day office supplies, subscriptions, professional journals & publications, etc.)

**2015-16 Estimates to 2014-15 Budget**
(c) **Transportation & Communications** – Variance due removal of funding approved in 2014-15 related to various ongoing Arbitrations & Negotiations ($15,000)
(d) **Supplies** - Variance due to removal of funding approved in 2014-15 related to various ongoing Arbitrations & Negotiations ($500).
### 3.1.04 (A348) Royalties & Benefits (Cont’d)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Services Funding to obtain external professional and specialized legal and accounting advice related to: the negotiation and development of petroleum and mining developments; participation in several initiatives related to increasing our understanding of the challenges related to deep water oil developments, value added and other energy market opportunities, and opportunities from oil and gas developments on the West Coast of the Province; the preparation and interpretation of petroleum agreements and legislation; and research and advice on specific petroleum fiscal systems and issues; and, the development of an energy supply and demand and valuation models; as well as support of royalty and cost audits; external support for arbitrations; research and advice on approaches to benefits negotiations.</td>
<td>2,561,700 (d)</td>
<td>252,000 (a)</td>
<td>2,949,500</td>
</tr>
<tr>
<td>Purchased Services Rental and lease of office equipment (i.e. photocopiers), rental of meeting room facilities if required, printing, advertising, on-site recycling and shredding services, and official entertainment.</td>
<td>139,300 (e)</td>
<td>205,200 (b)</td>
<td>143,300</td>
</tr>
<tr>
<td>Property, Furnishings &amp; Equipment Funding required for purchase of office equipment.</td>
<td>7,200 (f)</td>
<td>3,800 (c)</td>
<td>9,700</td>
</tr>
<tr>
<td>02 Operating Accounts</td>
<td>2,896,300</td>
<td>531,800</td>
<td>3,306,100</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Professional Services – Variance primarily due to delays associated with on-going oil & gas arbitrations, as well as less than anticipated expenditures associated with commercial negotiations during the year.
(b) Purchased Services – Variance due to higher than anticipated cost for PIRA and Platt’s online software subscriptions.
(c) Property, Furnishings & Equipment - Variance due to less than anticipated property, furnishings, and equipment requirements during the year.

2015-16 Estimates to 2014-15 Budget
(d) Professional Services – Variance due to removal of funding approved in 2014-15 related to various ongoing Arbitrations & Negotiations ($1,011,000), as well as an additional $623,200 approved in Budget 2015-16 related to ongoing Arbitrations & Negotiations for 2015-16.
(e) Purchased Services – Variance due to removal of funding approved in 2014-15 related to various ongoing Arbitrations & Negotiations ($4,000).
(f) Property, Furnishings & Equipment - Variance due to removal of funding approved in 2014-15 related to various ongoing Arbitrations & Negotiations ($2,500).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Grants &amp; Subsidies</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Funds used to support the Government’s commitments to advance the Petroleum Resources Marketing Plan; identify measures to promote targeted exploration activities and address other industry needs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>5,313,800</td>
<td>2,510,600</td>
<td>5,683,400</td>
</tr>
<tr>
<td>02 Revenue – Provincial</td>
<td>- (b)</td>
<td>(128,200) (a)</td>
<td>(81,000)</td>
</tr>
<tr>
<td>Miscellaneous revenue including delegate fees for oil and gas exhibitions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL ROYALTIES &amp; BENEFITS</td>
<td>5,313,800</td>
<td>2,382,400</td>
<td>5,602,400</td>
</tr>
</tbody>
</table>
Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Revenue – Provincial - Variance due to higher than anticipated registration fees for OTC Conference during the 2014-15 year.

2015-16 Estimates to 2014-15 Budget
(b) Revenue – Provincial - Variance due to a re-alignment of Revenue from 3.1.04 Royalties & Benefits to Petroleum Development related to revenues from fees for Oil & Gas trade shows and exhibitions - Revenue should have been moved in 2014-15 when all expenditures related to Oil & Gas trade shows and exhibitions were moved from 5.1.04 Royalties & Benefits to Petroleum Development.
DEPARTMENT OF NATURAL RESOURCES
DETAILED EXPLANATORY NOTES TO THE ESTIMATES 2015-2016

3.1.05 (A378) ENERGY INITIATIVES (CAPITAL) – ENERGY RESOURCES AND INDUSTRIAL BENEFITS
MANAGEMENT

Appropriations provide for an investment in Nalcor Energy, and/or its subsidiaries in order to facilitate its participation in oil and gas activities and other energy projects.

ASSOCIATE DEPUTY MINISTER – TRACY ENGLISH (ENERGY)

<table>
<thead>
<tr>
<th>5.1.06 (A378) ENERGY INITIATIVES (CAPITAL)</th>
<th>2015-16 Estimates</th>
<th>2014-15 Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 Loans, Advances and Investments</td>
<td>760,000,000 (b)</td>
<td>337,668,400 (a)</td>
</tr>
<tr>
<td>Amount to be Voted</td>
<td>760,000,000</td>
<td>337,668,400</td>
</tr>
<tr>
<td>TOTAL ENERGY INITIATIVES (CAPITAL)</td>
<td>760,000,000</td>
<td>552,700,000</td>
</tr>
</tbody>
</table>

Explanation of variance:

2014-15 Budget to 2014-15 Revised
(a) Loans, Advances and Investments – Variance due to lower than anticipated required investments in Nalcor Energy and/or its subsidiaries in order to facilitate its participation in oil and gas and other energy projects in the 2014-15 fiscal year.

2015-16 Estimates to 2014-15 Budget
(b) Loans, Advances and Investments – Variance due to adjustments required for 2015-16 to match the anticipated required investments in Nalcor Energy and/or its subsidiaries in order to facilitate its participation in oil and gas and other energy projects in the 2015-16 fiscal year.
## Activity

### 2.1.01 MINERAL RESOURCE MANAGEMENT - GEOLOGICAL SURVEY (A341)

<table>
<thead>
<tr>
<th>Description</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotional Efforts</td>
<td>19,100</td>
<td>50,000</td>
</tr>
</tbody>
</table>

Funds required for contracting services needed to support promotional efforts that internal capacity cannot accommodate; these mainly relate to the China Mining meetings where the Department contracts a geologist with the appropriate language skills plus understanding of the Chinese business environment to assist in developing materials and providing support at the meeting.

### 2.1.02 MINERAL RESOURCE MANAGEMENT - MINERAL LANDS (A342)

<table>
<thead>
<tr>
<th>Description</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Rights Adjudication Board</td>
<td>7,000</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Funding required for hearings by the Mineral Rights Adjudication Board. Members are paid at prescribed rates for their time; reimbursed for expenses; as well government pays for associated costs like a meeting room for the hearing and preparation of transcripts of the hearing.

### 2.1.03 MINERAL RESOURCE MANAGEMENT - MINERAL DEVELOPMENT (A343)

<table>
<thead>
<tr>
<th>Description</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orphaned and Abandoned Mines</td>
<td>730,300</td>
<td>240,300</td>
</tr>
</tbody>
</table>

Funding for the continued maintenance and safety of dams at orphaned and abandoned mines in the province and to perform regular dam safety reviews and maintenance of dams at OAMS in accordance with the Canadian Dam Association's Dam Safety Guidelines, 2007. ($100,000 Base Budget - $55,000 Prof Services and $45,000 Purchased Services).
### 2.1.03 MINERAL RESOURCE MANAGEMENT - MINERAL DEVELOPMENT (A343) (CONT'D)

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gullbridge Dam</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding for the repair of the Gullbridge tailings dam following failure in December 2012. Funding was provided for: 1) Review of alternatives and preliminary design of dam repairs and closure solution - a detailed review of alternative repair and site closure options is required prior to performing the work; and 2) Detailed design and oversight of Gullbridge closure solution - contract administration, inspection and monitoring by dam professionals of repair work at Gullbridge, including any necessary testing. Funding for 2014-15 was required to design and oversee the installation of erosion protection to be added to the dam slopes.</td>
<td>80,000</td>
<td>-</td>
</tr>
<tr>
<td><strong>Whalesback, Rambler, and Minworth Dams</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding was required for the reevaluation of Whalesback and Rambler Dam Repair Design, Preparation of Tender Documents and Construction Monitoring - $320,000</td>
<td>410,000</td>
<td>-</td>
</tr>
<tr>
<td>Funding is required for a Dam Safety Review of Minworth Tailings Dam, St. Lawrence - $90,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>On-Going Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is required to address contracting expertise in connection with existing or potential mineral developments, specifically; Voisey's Bay, Long Harbour Hydromet plant construction, and Wabush Mines. Funding is also required for additional requirements related to professional and technical advice that may emerge during the course of the year.</td>
<td>185,300</td>
<td>185,300</td>
</tr>
</tbody>
</table>
### PROFESSIONAL SERVICES

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1.01 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT – ENERGY POLICY (A344)</strong></td>
<td>924,800</td>
<td>424,800</td>
</tr>
<tr>
<td>Funding is provided for activities undertaken by the Energy Policy, Planning and Coordination Division for in-depth analysis of energy policy issues as they affect, or are affected by, the province’s energy sector and to ensure the Government is fully informed on provincial, regional, national and international energy issues. <em>(Policy &amp; Coordination Division)</em></td>
<td>75,000</td>
<td>75,000</td>
</tr>
<tr>
<td>Funding is provided for activities undertaken by Regulatory Affairs Division in the development of Framework Regulations under FORRI - The Frontier and Offshore Regulatory Renewal Initiative <em>(Regulatory Affairs Division)</em></td>
<td>59,800</td>
<td>59,800</td>
</tr>
<tr>
<td>Funding is provided for activities undertaken by Electricity and Alternative Energy Division for specialized consulting expertise for the development and implementation of policy options related to the electricity industry and for analysis of electricity sector developments in other jurisdictions <em>(Electricity and Alternative Energy Division)</em></td>
<td>90,000</td>
<td>90,000</td>
</tr>
<tr>
<td><strong>Electricity System Review</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding was provided for independent review of the Electricity System in Newfoundland. On January 9, 2014, Government announced it would seek an independent review of the electricity system in NL. <em>(Electricity and Alternative Energy Division)</em></td>
<td>700,000</td>
<td></td>
</tr>
<tr>
<td><strong>Preparation for Muskrat Interconnection</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is required for the necessary external consulting services in 2015-16 in order to ensure preparation for the interconnection with the North American electricity grid through the Muskrat Falls Project.</td>
<td>-</td>
<td>200,000</td>
</tr>
</tbody>
</table>
### Geoscience Initiatives
Funding for the increased collection and dissemination of petroleum geoscience information that would support continued/increased exploration activity by industry.

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.02 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT - PETROLEUM RESOURCE DEVELOPMENT (A345)</td>
<td>250,700</td>
<td>75,700</td>
</tr>
</tbody>
</table>

### On-Going Requirements
Ongoing funding is required for consulting services required to provide engineering, geosciences, regulatory affairs and other professional support services in support of the Department’s petroleum resource policy and advice responsibilities for exploration, development and production of provincial onshore and offshore resources. Technical expertise is required for evaluation of appropriate production systems for future onshore and offshore petroleum resource developments. Assessments and evaluations are also needed on onshore and offshore oil and gas: reserves and resources; technology requirement; capital and operating costs; work schedules; and the safety and environmental aspects of petroleum exploration, development and production.

Activities will also include assessments of the White Rose, Hebron-Ben Nevis Complex and Port au Port fields and other significant petroleum discoveries as necessary. Consulting services are also required to finalize assessments and revisions to onshore and offshore safety regimes, as well as technical assistance required for those related to the Department’s participation in national and international petroleum trade shows, exhibits, conferences and seminars.
### DEPARTMENT OF NATURAL RESOURCES
### EXPLANATORY NOTES
### 2015-16 Estimates
### PROFESSIONAL SERVICES

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1.04 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT – ROYALTIES AND BENEFITS (A348)</strong></td>
<td>2,949,500</td>
<td>2,561,700</td>
</tr>
<tr>
<td>Royalty Audits and Administration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding to hire consultants to supplement audit work and to provide specialized accounting services.</td>
<td>68,900</td>
<td>68,900</td>
</tr>
<tr>
<td>(Royalties Division)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Terra Nova Project Royalty Arbitration</strong></td>
<td>338,300</td>
<td></td>
</tr>
<tr>
<td>Funding for the purposes of conducting the Terra Nova Project Royalty Agreement Arbitration process. Husky Energy, an interest holder in the Terra Nova project has disputed the Province's application of the Regulations with respect to certain insurance costs they have attempted to claim and had triggered Arbitration as the dispute resolution process under the Royalty Regulations. (Royalties Division)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hibernia Project Royalty Arbitration</strong></td>
<td>1,323,600</td>
<td>1,323,600</td>
</tr>
<tr>
<td>Funding for the purposes of conducting the Hibernia Project Royalty Agreement Arbitration process. The Hibernia Owners have disputed the Province's audit findings for the years 1997 through 2004 and have triggered Arbitration as the dispute resolution process under the Hibernia Project Royalty Agreement. The $2.65M is budgeted to cover the whole of the Arbitration Panel costs. The Province’s actual cost may be less. On an initial cash-flow basis the Province and the Hibernia Owners would likely share the cost of the Arbitration Panel on a 50/50 basis. Upon final decision of the Panel costs would likely be awarded to the Parties based upon their percentage of success. If the Province was 100% successful in its arguments, then it would likely recover 100% of its share of the Arbitration costs. If the Province was wholly unsuccessful, it would likely be required to pay 100% of the Arbitration costs. ($1,323,600 approved for 2014-15 and $1,323,600 approved for 2015-16) (Royalties Division)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 5 of 7
### PROFESSIONAL SERVICES

#### Activity

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1.04 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT – ROYALTIES AND BENEFITS (A348) (CONT'D)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Arbitrations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is required for the Terra Nova - Husky Insurance and White Rose/White Rose Expansion on-going arbitrations for 2015-16.</td>
<td>-</td>
<td>623,200</td>
</tr>
<tr>
<td><strong>Hebron Project Benefits Arbitration</strong></td>
<td>534,700</td>
<td>-</td>
</tr>
<tr>
<td>Funding for the purpose of conducting the Hebron Benefits Agreement (HBA) arbitration process. The province had identified potential non-compliance with the HBA in regards to work prescribed to be performed in the province that was being awarded/bid outside the province and had triggered the Dispute Resolution Mechanism of the HBA. <em>(Benefits Division)</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Commercial Negotiations

Funding is required for the upcoming Statoil/Husky negotiations. Statoil/Husky has provided notification to government that the negotiation process is expected to begin in early-mid 2014. Funding includes provisions for the acquisition of required commercial negotiation, energy economics, legal, engineering and royalty expertise. These funds are required to cover the anticipated advisory services and additional expertise that will be required during the negotiation process. ($419,000 approved for 2014-15 and $281,000 approved for 2015-16) *(Benefits Division)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1.04 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT – ROYALTIES AND BENEFITS (A348) (CONT’D)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commercial Negotiations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is required for the upcoming Statoil/Husky negotiations. Statoil/Husky has provided notification to government that the negotiation process is expected to begin in early-mid 2014. Funding includes provisions for the acquisition of required commercial negotiation, energy economics, legal, engineering and royalty expertise. These funds are required to cover the anticipated advisory services and additional expertise that will be required during the negotiation process. ($419,000 approved for 2014-15 and $281,000 approved for 2015-16) <em>(Benefits Division)</em></td>
<td>419,000</td>
<td>281,000</td>
</tr>
</tbody>
</table>

### Oil and Gas Developments & New Project Consulting

Funding to enable the Department to effectively plan for other potential oil and gas developments. Funding is provided to evaluate the potential industrial benefits opportunities associated with specific components of new offshore oil projects. This work will continue to be conducted primarily in-house, however, some outside consultant expertise may be required. *(Benefits Division)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oil and Gas Developments &amp; New Project Consulting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding to enable the Department to effectively plan for other potential oil and gas developments. Funding is provided to evaluate the potential industrial benefits opportunities associated with specific components of new offshore oil projects. This work will continue to be conducted primarily in-house, however, some outside consultant expertise may be required. <em>(Benefits Division)</em></td>
<td>100,000</td>
<td>100,000</td>
</tr>
</tbody>
</table>

### Petroleum Industry Advice

Funding in this area is required to obtain external professional advice related to the negotiation, preparation and interpretation of petroleum agreements and legislation. This would include specialized legal, accounting and financial advice on specific petroleum industry issues. *(Energy Economics Division)*

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Petroleum Industry Advice</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding in this area is required to obtain external professional advice related to the negotiation, preparation and interpretation of petroleum agreements and legislation. This would include specialized legal, accounting and financial advice on specific petroleum industry issues. <em>(Energy Economics Division)</em></td>
<td>165,000</td>
<td>165,000</td>
</tr>
</tbody>
</table>

### TOTAL NATURAL RESOURCES

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL NATURAL RESOURCES</strong></td>
<td>4,881,400</td>
<td>3,359,500</td>
</tr>
<tr>
<td>Activity</td>
<td>2014-15 Estimates</td>
<td>2015-16 Estimates</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>2.1.01 MINERAL RESOURCE MANAGEMENT - GEOLOGICAL SURVEY (A341)</strong></td>
<td>5,000</td>
<td>7,500</td>
</tr>
<tr>
<td>Canadian Institute of Mining, Metallurgy and Petroleum</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Grant to the CIM to cover portion of the Annual Review of Activities luncheon.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canadian Quaternary Association (CANQUA)</strong></td>
<td>-</td>
<td>2,500</td>
</tr>
<tr>
<td>Grant in support of Biennial Meeting in St. John's, August 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Geological Association of Canada - Newfoundland and Labrador Section</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grant in support of Annual Meeting</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td><strong>2.1.03 MINERAL RESOURCE MANAGEMENT - MINERAL DEVELOPMENT (A343)</strong></td>
<td>1,903,000</td>
<td>1,600,000</td>
</tr>
<tr>
<td><strong>Prospector’s Assistance Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is provided to assist prospectors undertake grassroots activities, promote their findings to the exploration industry, receive technical and geological support through Prospector Resources Rooms and provide opportunities to promote the prospecting industry.</td>
<td>391,000</td>
<td>390,000</td>
</tr>
<tr>
<td><strong>Junior Company Exploration Assistance Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding is provided to junior exploration companies to assist them undertake grassroots and advanced geosciences activity in the Province.</td>
<td>1,247,000</td>
<td>1,195,000</td>
</tr>
<tr>
<td><strong>Natural Stone Assessment Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding was provided to companies to cover 75% of the cost of exploration and resource assessment on natural stone prospects, up to a maximum of $50,000 per project. The objective of the Natural Stone Assessment Program was to encourage more prospecting and development of dimension stone, building stone and industrial minerals.</td>
<td>250,000</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>2014-15 Estimates</td>
<td>2015-16 Estimates</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>2.1.03 MINERAL RESOURCE MANAGEMENT - MINERAL DEVELOPMENT (A343)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>(CONT’D)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Support of Orphaned/Abandoned Mines Initiatives</td>
<td>15,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Funding to support the National Orphaned/Abandoned Mines Advisory Committee which the Department is a member and the Restoration of Labrador Exploration Sites program, an industry lead initiative that is restoring abandoned exploration sites in Labrador.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.1.01 ENERGY RESOURCES AND INDUSTRIAL BENEFITS MANAGEMENT - ENERGY POLICY (A344)</strong></td>
<td><strong>3,110,000</strong></td>
<td><strong>3,250,000</strong></td>
</tr>
<tr>
<td>Diesel Subsidy</td>
<td>2,100,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Funding is required to provide a subsidy to <em>offset</em> electricity rate increases for isolated diesel-powered communities on the Labrador coast. This is a Northern Strategic Plan initiative.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel Subsidy</td>
<td>400,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Funding is required to <em>defer</em> the electricity rate increases in isolated diesel-powered communities on the island and on the Labrador coast. This is a Northern Strategic Plan initiative. MC2012-0522 approved Subsidy for 2013-14 and 2014-15. OC2014-372 approved Subsidy for 2015-16.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CF(L)Co Trust</td>
<td>610,000</td>
<td>350,000</td>
</tr>
<tr>
<td>Funding required to meet the legal obligations of the CF(L)Co Trust Agreement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Department of Natural Resources
## Explanatory Notes
### 2015-16 Estimates
#### Grants & Subsidies

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3.1.02 Energy Resources and Industrial Benefits Management - Petroleum Resource Development (A345)</strong></td>
<td>500,000</td>
<td>300,000</td>
</tr>
<tr>
<td>Geoscience Initiatives</td>
<td>500,000</td>
<td>-</td>
</tr>
<tr>
<td>Funding for the increased collection and dissemination of petroleum geoscience information that would support continued/increased exploration activity by industry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Hydraulic Fracturing Review Panel</strong></td>
<td></td>
<td>300,000</td>
</tr>
<tr>
<td>Funding for the Hydraulic Fracturing Review Panel. The Department will be entering into an agreement with the Memorial University of Newfoundland to cover the costs of the operations of the panel. The Department will be providing the University with a Grant to cover the costs of the operations of the panel including; travel and per diems, project management and other direct costs, technical experts, public consultation costs including venues, advertising, collateral materials and other expenses.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3.1.03 Energy Resources &amp; Industrial Benefits Management - Canada/Newfoundland &amp; Labrador Offshore Petroleum Board (A347) - Cost-Shared Program</strong></td>
<td>8,850,800</td>
<td>8,835,000</td>
</tr>
<tr>
<td>Funding is required for the Provincial share of the operating and capital costs of the Canada-Newfoundland and Labrador Offshore Petroleum Board to meet increased demands associated with increased production such as Board investigations; auditing to ensure compliance with regulatory regime; regulatory query responses; and guideline implementation and monitoring.</td>
<td>8,850,800</td>
<td>8,835,000</td>
</tr>
</tbody>
</table>
### Western Newfoundland Resource Potential

The Energy Plan identified that it is essential we encourage seismic and exploration activity in all basins to maintain a high level of industry interest. One of the means to do this is to promote our resource potential at key venues. These funds will be used to support the government’s commitments to advance the petroleum resource marketing plan; identify measures to promote targeted exploration activity and address other industry needs. It is also consistent with NR’s commitment in the Strategic Plan to advance outreach practices to support industry growth.

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014-15 Estimates</th>
<th>2015-16 Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.04 ENERGY RESOURCES &amp; INDUSTRIAL BENEFITS MANAGEMENT – ROYALTIES &amp; BENEFITS (A348)</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>Western Newfoundland Resource Potential</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>TOTAL NATURAL RESOURCES</td>
<td>14,398,800</td>
<td>14,022,500</td>
</tr>
</tbody>
</table>
Newfoundland Labrador

Department of Natural Resources
Information Note
Department of Natural Resources (NR)

Title: Western Labrador Mine Closures and Government’s Response

Issue: To provide information on western Labrador iron ore mine closures and Government’s Response to the closures.

Background and Current Status:
- The iron ore industry changed dramatically in 2000-2005 with the emergence of China as a major importer. Pricing of iron ore switched from a contract system with low and stable prices to an open market. Iron ore prices rose steeply, and became highly volatile. The price rose from $36/tonne in December 2007 to up to $190/tonne in late 2010.

- This price increase sparked interest in western Labrador in developing new projects and expanding existing mines.

- Iron ore prices reached a peak of $190/tonne in late 2010, but were followed by a period of volatility with prices remaining over $100/tonne until 2013 when they entered a period of consistent decline. As of November 20, 2015, prices have subsequently have fallen to a low of $45.50.

- The decline in price had a major impact on mining projects in the Labrador Trough as prices fell below the cost of production. Wabush Mines and Bloom Lake closed, Labrador Iron Mines ceased operations, IOC implemented cost cutting measures and halted expansion plans, and the Kami project was put on hold.

Wabush Mines
- The mine was idled in February 2014 and 350 employees were laid off with a further 50 (maintenance employees) laid off at the end of 2014. Four employees remain at the site to ensure security. The mine formally closed in October 2014.

- In January 2015, the Canadian arm of Cliffs sought creditor protection under the federal Companies’ Creditors Arrangement Act (CCAA), initially for the Bloom Lake mine and later expanded to include all Canadian operations, including Wabush Mines and company owned port and rail infrastructure at Sept Isles, Quebec. The Wabush Mines assets include the mine and associated infrastructure, but also a number of buildings in the town of Wabush, including the school.

- The CCAA process consists of court-supervised debt restructuring proceedings under the direction of an independent monitor. The monitor has subsequently solicited bids for the sale of all assets. The process is still underway and has been extended to January 29, 2016 to complete prospective sales.

- Under the requirements of the Mining Act, Wabush Mines provided a closure and rehabilitation plan to GNL. A financial bond of $49.4M has also been provided by Wabush
Mines to cover all potential costs of closure in the event that the company fails to deliver on its closure plan. This financial assurance is not at risk in the CCAA process.

- Wabush Mines has prepared a revised closure plan to reflect actual date of closure (the original plan was based on operations continuing until 2024) with a lower estimated cost. ENVC advised Cliffs in January 2015 that closure activities must be registered for environmental assessment. Cliffs provided the environmental registration documents on November 25, 2015. These have been made public with a 45 day period for public comment.

- The mineral rights for the area are owned by MFC Industrial Ltd. (MFC) who sub-leased to Wabush Mines in return for a royalty. MFC has rights under the lease agreement to acquire the mining infrastructure at fair market value.

**Bloom Lake**

- The Bloom Lake mine employed 580 people (mostly from Quebec). The closure of the mine at the end of 2014 impacted Labrador West as several supply and service companies were active in mine servicing. Direct job losses in Labrador were restricted to 12 employees working on the Bloom Lake railway.

- The Bloom Lake closure was completed in concert with Cliffs’ decision to close all its eastern Canadian operations, including Wabush Mines.

**Labrador Iron Mines**

- Labrador Iron Mines (LIM) employed approximately 200 people (mostly from NL) on a seasonal basis in 2012 and 2013.

- In 2014, the project did not re-open. The company continued restricted operations on closure and rehabilitation of the James mine pit through 2015. LIM entered CCAA protection in April 2015, but states they plan to re-open if iron ore prices improve.

**IOC**

- From 2011-2014, IOC carried out a three-phase expansion program that increased production capacity at IOC. Actual production increases did not occur until mid-2014 due to construction and operational delays.

- In 2014-15, IOC responded to the decline in prices by making efforts to lower costs of production, and to increase production volume. This involved lay-offs of 150 employees in June 2015, changes in shift rotations, and other operational changes designed to improve efficiency. IOC are also bringing a new ore body into production (Wabush 3) as a more efficient alternative to existing pits. The CEO of Rio Tinto (IOC’s parent company) has stated that the future of IOC is at risk if productivity plans are not successful.

- Up to the end of 2014, IOC had access to cheap hydro power from Churchill Falls as a result of a long-term contract. In 2012, GNL announced a Labrador Industrial Rates policy that provides the mining industry with a guaranteed block of low-cost power supplemented by market rate power if demand increases. In 2015, this resulted in an increase in electricity
costs to IOC and in June 2015, IOC asked GNL to reduce power costs stating that the increased costs related to the expiry of the previous contract were burdening operations. In September 2015, IOC was informed that the current power rate only covered the costs of production and that reducing it further would require either a direct subsidy or postponing needed maintenance work.

- In November 2015, IOC closed three of six pellet circuits due to a decrease in premium for pellets, with no job losses.

**Government Response**

- There was no formal response from GNL when Labrador Iron Mines did not re-open for production in 2014.

- In response to the Wabush Mine closure in 2014, GNL established an interdepartmental Deputy Minister Committee (Committee) in February 2015, chaired by the Deputy Minister of AES with Deputy Minister and senior official representation from BTCRD, MIGA, LRA, LAAO, NR, ENVC and Cabinet Secretariat, and later SNL, HCS and JPS. The Committee was mandated to coordinate a short-term action and engagement plan in response to the events unfolding in Wabush, primarily to address the needs of workers that had been laid off from the mine.

- Specifically, the Committee has overseen GNL’s efforts to develop and implement temporary employment and training measures for workers and, to prepare short-term solutions to mitigate the anticipated negative socio-economic impacts, such as placing additional staff in the AES Employment Centre in Wabush to respond to the increased demand for program services and funding; developing an Employee and Skills Assessment Inventory; providing direct employment and training supports to impacted workers; working with the College of the North Atlantic to develop a training plan that included additional program and refresher course offerings; and holding regular meetings and communication with key regional stakeholders.

- Other departments and agencies led various additional responses, such as financial assistance, working with the union and employer on grievance resolution and identifying opportunities for development and diversification.

- The Labrador West Regional Taskforce was established by IOC in February 2012. The Taskforce is co-facilitated by LAAO and NR, and operates under a partnership agreement (developed by IOC) that was adopted in October 2012. Other membership includes external organizations such as New Millennium Iron Mines, Tata Steel, Town of Fermont, Town of Wabush, Town of Labrador City and the Atlantic Canada Opportunities Agency (ACOA).

- The Taskforce was initially created to examine the cumulative effects on the Labrador West region resulting from the significant mining expansion occurring at that time, and to take a collaborative approach to address potential impacts (e.g., significant worker shortages, high cost of living, and affordability of housing).
- The Taskforce served as the impetus for the development of Plan Big, the regional growth strategy subsequently adopted by both municipalities in April 2015. Since the downturn in the economy, the Taskforce has been engaged in developing potential solutions to the current industrial, economic and social challenges facing the region.

**Analysis:**
- Iron ore prices have proved very difficult to accurately forecast over the past five years. Consensus forecasts suggest a rise in prices to $US54 in 2016, $US65 in 2018, and $US74 in 2021-25.

- After making significant profits during the period of higher iron ore prices, IOC is operating at close to breakeven at the current price. Rio Tinto stated in October 2015 that IOC’s current production cost is US$36/tonne and the US$30/tonne should be achievable in 2016. Concentrate production is expected to increase in 2016 and 2017 to 19 and 21 million tonnes respectively.

- Wabush Mines closed due to the high cost of production (over $100/tonne). The mine has lower quality ore, due to contamination from high levels of manganese, and had produced a saleable product only by blending low manganese ore with high manganese ore. In addition, any new operator has to pay a royalty to MFC (the lease holders).

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Prepared/approved by: D. Liverman/C. Bown/Wabush DM Committee
Reviewed by: M. Collins/T. King, Cabinet Secretariat

November 30, 2015
Cabinet Secretariat Comment:

- AES, SNL, BTCRD, ENV, MIGA, FIN, LRA and HCS have no concerns. HCS notes that it was decided at the last DM Committee that HCS would no longer be represented on the Committee.

- The Communications Branch notes issues in Labrador West have received a fair amount of media coverage over the last two years – in particular, media attention has focused on the impact on housing, people having to leave the region, etc.

- The Communications Branch recommends that key messages on the cross-departmental response to the issues in Labrador West be updated and available upon request. NR agrees. If

- LAAO notes that the establishment of a Community Development Committee appears to have been successful in other jurisdictions with similar industry closures and could be considered as a response to this matter. LAAO further notes that the Opportunities Identification exercise, undertaken by BTCRD, was a successful initiative in the Labrador West region; and the establishment of a Community Development Committee may assist in the implementation of some of the outlined initiatives. Additional project funding may be required depending on scope of initiative.

- JPS notes that the Wabush CCAA parties, which includes Wabush Resources Inc., Wabush Iron Co. Limited (both subsidiaries of Cliffs Mining Company), the Arnaud Railway Company and Wabush Lake Railway Company Limited, have received extended CCAA protection until January 29, 2016. Prior requests for extensions have been granted by the CCAA Court.

- On November 26, Wabush Mines registered its mine rehabilitation project for EA, which includes the removal of all mining infrastructure from the region. Wabush Mayor Colin Vardy responded to the filing by calling for a public rally (to be held on November 28) in support of leaving the infrastructure in place until a buyer can be found.
Sec 29, Sec 35

REDACTED
Attachment 1

Mating Barge Grillage - Fabrication and Installation

Category:
Marine

Package Number:
SM745A

Forecasted EOI Date:
Q1-15

Forecasted Award Date:
Q3-15

Publish Package:
no

EOI Status:
closed

EOI Date:
09/01/2015

EOI Closing Date:
23/01/2015

Publish EOI:
yes

Awarded:
no

Award Date Year:
2014
no

REQUEST FOR EXPRESSION OF INTEREST (EOI)

HEBRON GBS Project - Bull Arm

BIDS Categories: 2300, 2800, 9000, 9100, 9336

Issue Date: 09-Jan-2015

Closing Date: 23-Jan-2015
GENERAL

Kiewit-Kvaerner Contractors (KKC) hereby invites interested parties to submit an Expression of Interest (EOI) related to the future issuance of Requests for Qualifications and subsequent Requests for Tender for the following Scope of Work/Supply/Services package in connection with KKC's EPC services for the Hebron GBS Project in Newfoundland and Labrador, Canada.

BACKGROUND INFORMATION

As part of the Topsides Mating operation for the Hebron GBS Project, KKC will utilize two mating barges outfitted with large grillage structures to lift-off, transport and transfer the Topsides from the integration finger pier to the GBS at the deep water construction site at Bull Arm, Newfoundland, Canada.

KKC will take on-hire and arrange for the delivery of two mating barges to the successful sub-contractor's installation yard. Delivery of the mating barges to the installation yard will follow completion of pre-fabrication of grillage structures. The point of origin for mating barges is unconfirmed at this stage however mating barges may originate from the Far East, Europe or Gulf of Mexico.

SCOPE OF WORK

The scope of work consists of pre-fabrication and installation of large grillage structures onto two mating barges.

Sub-contractor will be responsible for project management, engineering and quality management, quality control, production of shop drawings, procurement of materials, pre-fabrication of structures, installation, fit-up and weld out of structures onto mating barges. Sub-contractor shall be capable of receiving, handling, berthing and caring for the mating barges. As well, sub-contractor shall liaise and coordinate with barge charterer, barge owner, class society representatives, marine warranty surveyors and other project personnel as necessary during execution of the work. All worked performed shall be in accordance with project specifications and drawings. Subcontractor will be required to provide all necessary facilities, equipment, labor, materials, consumables, tools, etc. to execute and successfully perform this scope of work.

The total steel tonnage for this package is approx. 2,400 t and includes plate thicknesses up to 70 mm.

The nominal height of grillage structures above the main deck on each mating barge is up to approx. 9 m.

The approximate dimensions for mating barges are up to 152m X 38m X 9.15m.

As part of execution certainty, grillage and outfitting structures shall be pre-fabricated in advance of mating barge arrival and stored near the installation quay(s).
Potential sub-contractors shall be prepared to demonstrate that:

- All engineering, shop drawings, procurement of materials, pre-fabrication of structures can be completed within 8 months period, commencing late summer / early autumn 2015.
- All load-out, installation, fit-up, weld out and commissioning of all pre-fabricated and tie-in structures onto the two mating barges can be completed within a 4 week period commencing early / mid-summer 2016.

The following will be evaluated during assessment of potential sub-contractors:

- Experience, Quality and Safety (records and performance)
- Management Team, Key Resources
- Financial Capability / Stability
- Resource Plan (qualifications and licenses)
- Production Capacity
- Current Commitments
- Forecast Workload
- Sub-contracting and Procurement Plans (including any proposed joint ventures or partnerships)
- Schedule (pre-fab & installation)
- Class approved weld procedures (DNV or equivalent) and weld records
- Lifting / Movement / Load-out / Installation Methods & Capabilities
- Quay Space / Storage
- Confirmation of Ice Free Port

FOR REFERENCE SKETCHES PLEASE SEE ATTACHMENT 1, BELOW.

If additional project information is required, please visit the Hebron Project website at www.hebronproject.com [1] or the KKC website at www.kkc-gbs.com.

BENEFITS COMMITMENTS

Kiewit-Kvaerner Contractors is committed to providing full and fair opportunities to commercially competitive Canadian companies with first consideration given to those from Newfoundland and Labrador. At the Pre-Qualification and ITT stages, companies will be required to complete Canada/Newfoundland & Labrador Benefits questionnaires to acknowledge their willingness to comply with the Hebron Benefits Agreement.

EQUAL OPPORTUNITY

KKC is an equal opportunity employer and as such supports diversity in the workplace. Successful suppliers and subcontractors to KKC will be required to undertake a commitment to support diversity in execution of work on the Hebron Project.

A copy of the Hebron benefits agreement can be found on the KKC and Hebron Project websites.

SUPPLIER DIVERSITY

KKC encourages the participation of members of designated groups (women; Aboriginal peoples; persons with disabilities; and visible minorities) and corporations or cooperatives owned by them, in the supply of goods and services on the Hebron GBS Project.
A diverse supplier is a business that is at least 51% owned and controlled by a member(s) of one or more of the four designated groups identified in the Canadian employment equity legislation (listed above). KKC encourages diverse suppliers interested in the scope of work to self-identify using the section below.

Diverse Ownership (Completion of this section is voluntary)

A Diverse supplier is a business that is at least 51% owned and controlled by a member(s) of one or more of the four designated groups identified in Canadian employment equity legislation:

☐ Women
☐ Aboriginal peoples
☐ Visible Minorities
☐ Persons with disabilities

Please indicate above which designated group(s) are applicable to your business.

Certification for Diverse Businesses

There are currently national certifying organizations that cover certification for businesses owned by:

• Aboriginal Peoples
• Visible Minorities
• Women

The Hebron Project will continue to look for organizations that can provide certification support to businesses owned by persons with disabilities.

If you indicated that your business is owned by a member of a designated group, are you currently certified as a diverse-owned business? ☐ Yes ☐ No

Through which certifying organization is your business certified?

If you are a NL registered business and are not currently certified, would you be interested in learning more about certification? ☐ Yes ☐ No

The Hebron Project has a vendor database that is used to identify possible suppliers and contractors to participate in the project. Suppliers and contractors are encouraged to register.

ExxonMobil Canada Properties, operator of the Hebron Project, will use the database beyond development/construction, into the operations phase of the project. We also see value in expanding use of the database to the Hibernia and Hibernia Southern Extension projects, as well as project co-venturers and co-owners should they request information. The increased visibility to three major projects and other noted industry participants may be of value to your organization as it has the potential to increase future procurement opportunities.
DISCLAIMER: By registering your company in the vendor database, you are consenting to making your information available to the parties noted above in addition to the Hebron Project.

NOTE: Registration in the database does not imply that a supplier or contractor is approved as a qualified supplier, nor does it indicate that a supplier or contractor is included on any tender or bid list for the supply of goods or services for which it has registered.

RESPONSES AND SUBMISSION REQUIREMENTS

Applicant(s) must clearly identify the procurement package code assigned to this EOI in their responses. Applicants’ EOI submissions must provide the complete company name and address and the names, titles and telephone numbers of two contact persons. If you choose to complete the section pertaining to supplier diversity it must also be included in your EOI submission.

It is important to note that the EOI phase will be used to identify candidates that may be invited to participate in the prequalification process. Participation in this EOI process, including any statements or representations, whether oral or written between KKC and interested applicants, shall not create or be deemed to create, any binding legal relationship or contract.

EXTERNAL POSTINGS

To ensure all potential supply communities are informed of upcoming opportunities KKC will be posting all EOI’s on BIDS.ca and NOIA.ca. There is no formal document required to submit an EOI to KKC however in all email submissions we ask that the title of the email follow the below naming convention.

All information, correspondence and submittals must be in English and the subject line of the email must be formatted as follows: EOI Submission - Package Number - Package Title

Please send EOIs via email to the following address:  

eo@kkc-gbs.com [2]

If you have any questions regarding this announcement, please contact:

Mike Halliday
Subcontract Specialist
Reference Sketches:

The following illustrations provide a visualization of barge grillage structures (note: the nominal grillage height above main deck is ~6m):

Figure 1.1 Mating Barge 1 Main Steel Isometric View

Figure 1.2 Mating Barge 2 Main Steel Isometric View