Request for Proposals:

Review of the
Newfoundland and Labrador Electricity System

Department of Natural Resources

April 7, 2014
1. Purpose

On January 9, 2014, the Government of Newfoundland and Labrador announced that “an independent review will take place to look at the current electricity system in Newfoundland and Labrador – how it operates, is managed and regulated as the province moves from an isolated system to an interconnected system.” The purpose of this Request for Proposals (RFP) is to seek consulting expertise to undertake a review and analysis of the legislation, regulation, management and operation of the Newfoundland and Labrador electricity system.

The Government of Newfoundland and Labrador’s Energy Plan established a vision for the Province’s energy sector, which is “to ensure our energy resources contribute to a vibrant and sustainable Newfoundland and Labrador where people are proud to live and work, the standard of living is high, and the environment is protected now and into the future; and to ensure that the people of Newfoundland and Labrador take pride and ownership in our energy resources and strategically develop them in such a way that returns maximum benefits to the province for generations to come.” Along with this vision, the plan is built around the principles of sustainability, control, and cooperation and coordination. The vision and principles of the Energy Plan will be supported by this review of Newfoundland and Labrador’s electricity system. In addition, the Energy Plan outlines several goals which include energy security, sustainable economic development, and effective governance which will also be taken into account as part of this review.

The review also directly reflects key actions Government committed to take in its 2007 Energy Plan, including:

- “Ensure that the regulatory process can appropriately accommodate Lower Churchill and other power for use in both domestic and export markets”
- “Streamline the regulatory process governing the electricity sector”

As discussed in the Scope of Work below, the consultant will complete up to three separate reports relating to critical aspects of the Province’s electricity system.

2. Background

The Newfoundland and Labrador electricity system has nearly 7,500 megawatts (MW) of electrical generating capacity and a transmission-distribution system serving about 280,000 customers. These customers are either on the Island grid, the Labrador grid or one of the province’s 21 isolated diesel systems in coastal communities. The isolated diesel customers in the Labrador Straits region are also connected to Hydro Quebec’s Lac Robertson hydroelectric generating station and receive power from it when surplus supply is available. The Ramea isolated system is serviced by a diesel/wind/hydrogen generation facility. In addition, the isolated Menihex hydroelectric facility in western Labrador provides surplus seasonal energy to the Labrador Iron Mines operations in the region in addition to providing power to Hydro-Quebec for its customers in the Schefferville region of Quebec. The Island system grid is physically isolated from Labrador and the North American grid while the Labrador system grid is connected to the Hydro-Quebec system via three high voltage transmission lines used to export the majority of the 5,428 MW of power from the Upper Churchill Falls generating plant. With the development of the Muskrat Falls project, the Island grid will gain two interconnection points: interconnection with Labrador by the Labrador-Island Link transmission line and interconnection with the Nova Scotia grid and the North American grid by the Maritime Link transmission line. With Muskrat
Falls coming online Newfoundland and Labrador will become 98% renewable in its electricity supply.

Electricity supply and distribution service in the province is primarily provided by two utilities - Newfoundland and Labrador Hydro (NLH) and Newfoundland Power (NP). NP serves the majority of retail Island grid customers, while NLH is the service provider to some rural customers on the Island grid, to customers in Labrador and to customers on isolated off-grid systems on the Island and in Labrador. In addition to NP and NLH, there are various other entities in Newfoundland and Labrador that provide generation and transmission service primarily to NLH to facilitate electrical service to its customers. This would include Churchill Falls (Labrador) Corporation Limited (CF(L)Co) and Twin Falls Power Corporation (Twinco) on the Labrador grid as well as various non-utility generators (NUGs) on the Island system. In addition, Corner Brook Pulp and Paper Limited (owned by Kruger Inc.) on the Island has electricity generation facilities including a hydro facility, Deer Lake Power Company, and a cogeneration project at the pulp and paper mill. Deer Lake Power supplies electricity to the mill while any surplus generation along with the cogeneration project output is sold for consumption on the Island grid.

NP, an investor-owned utility and subsidiary of Fortis Inc., is the primary distributor of electricity on the Island portion of the province with approximately a quarter million retail customers on the Island. NLH supplies in the range of 90 per cent of NP’s annual energy requirements for its customers and NP generates the remainder with its 23 small hydroelectric generating plants as well as other small thermal generating facilities.

NLH is a wholly-owned subsidiary of provincial crown corporation, Nalcor Energy. NLH’s mandate is to generate and transmit electricity in the province, and to provide distribution and retail services to customers in Labrador and in areas of the island of Newfoundland not serviced by NP. This includes distribution service to customers on the Great Northern Peninsula, on the Baie Verte Peninsula/White Bay region, on the Island’s south coast, in Labrador and in various isolated/off-grid communities in Labrador and on the Island.

Both NP and NLH are regulated by the Board of Commissioners of Public Utilities (PUB). CF(L)Co, Twinco and NUGs are not regulated by the PUB. The PUB’s jurisdiction over electric public utilities in the province is defined primarily by the following legislation:

a) The Electrical Power Control Act, 1994 (EPCA) sets out the power policy of the province and gives authority to the PUB to implement the policy. The EPCA declares that rates charged to electrical customers should be reasonable and not unjustly discriminatory, allow sufficient revenue for the producer or retailer of the power to earn a just and reasonable return while maintaining a sound credit rating in world financial markets and promote the efficient production, transmission and distribution of power at lowest cost consistent with reliable service. The Lieutenant-Governor in Council retains the right to direct the PUB on rates policy and procedures, issue exemptions for a public utility under the EPCA (same authority under the Public Utilities Act) as well as refer matters to the PUB relating to rates and other issues. As well, the EPCA gives the PUB authority to ensure adequate planning by the utilities occurs for future production, transmission and distribution of power in the province as well as provides the PUB the authority to allocate/re-allocate power in the event of a shortage. The Lieutenant-Governor in Council can also appoint an emergency controller during a state of emergency to make decisions and issue directions and orders related to the oversight and operation of the provincial power system.
b) The Public Utilities Act (PUA) defines the general powers of the PUB regarding its oversight of provincial public utilities including: 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, as well as ensuring adequate provision of electricity service and compliance under the PUA. The PUA defines a public utility in the province as an entity that owns, operates, manages or controls equipment or facilities related to the providing of electric power or energy, water, heat or sewage to or for the public or a corporation for compensation.

Other electricity sector related legislation in Newfoundland and Labrador includes the Hydro Corporation Act 2007, the Energy Corporation Act, the Energy Corporation of Newfoundland and Labrador Water Rights Act and the Churchill Falls (Labrador) Corporation Limited (Lease) Act, 1961.

3. Project Scope of Work

This review strives to minimize duplication with a review being conducted by the PUB (for information refer to http://www.pub.nf.ca/), focusing less on the events relating to the recent power outages by taking a broader focus on ensuring NL’s electricity system has the optimal structure, controls and authorities to ensure an appropriate balance between reliability and affordability, specifically as it transitions from an isolated system to a North American interconnected system. It is expected that the study period will include a review from the 1994 timeframe, corresponding with passage of the Electrical Power Control Act, 1994, moving through to the present and forward beyond the 2017/2018 time period when the Island interconnects.

To complete the project, the successful proponent will be expected to undertake research and analysis examining current and post-interconnection considerations for the provincial electricity system. This review will examine system reliability and the operation model in the current context and in the future interconnected context. The successful proponent will conduct a review of practices and approaches in other jurisdictions to examine and identify any additional interprovincial, national and international considerations that the province could take into account in the interim period leading up to and beyond transition to an interconnected system. The proponent’s analysis shall include how reliability standards and coordination could be changed, as well as the responsibilities for system planning and operations as the Island transitions to North American interconnection. The proponent will conduct this research and analysis for each of the analysis areas outlined in 3.1, 3.2 and 3.3. The proponent will subsequently present its review, analysis and findings to the Department of Natural Resources in up to three separate final expert reports, one for each of the following analysis areas.

3.1. Electricity System Overview including Industry Structure and Participants’ Roles and Responsibilities

- An inventory, overview, and performance history of the electricity generation, transmission, and distribution assets in Newfoundland and Labrador.
- An overview of the current electricity supply, demand and provincial electricity system, including the interconnected and isolated components.
3.2. Electricity Sector Governance, Legislation and Regulation

- Outline the governance structure, for the provincial electricity sector.
- Review the relevant legislation and regulations governing the electricity sector in Newfoundland and Labrador.
- Examine regulatory oversight, review and approval processes.
- Discuss the process by which decisions are made by stakeholders (e.g. regulator, utilities) related to the planning, maintenance and operation of the electricity system and whether the current legislation and governance structure provides an adequate platform for the decision making process and for stakeholders to fulfill their related mandates/responsibilities in these areas of system planning and operation.
- Discuss the ability of NL’s governance structure to enable stakeholders to ensure system reliability.
- Provide an overview of the various utility models in Canada and discuss the extent to which these models contribute to successful electricity system planning.
- Provide an overview of the legislative and governance models, including emerging trends, in other jurisdictions, which includes a discussion of benefits and shortcomings of various models including the model in NL.

3.3. System Reliability, Operations, Performance and Accountability

- For the following issues in this section, the proponent shall research and analyze the current provincial framework, provide an overview of relevant best practices in other jurisdictions/regions, and discuss benefits and shortcomings of these approaches. This analysis should take into account the following:
  - Approach to system planning, operations and asset management and impact on system reliability
  - Balance between reliability and cost in system planning and asset management (i.e. reliability balanced with least cost power)
  - Factors that impact system reliability
  - Utility planning protocols and decision making processes
  - Emergency preparedness, management and response
  - Reliability standards and measures
  - Reliability coordination
  - Infrastructure maintenance practices and schedule
  - Forecasting of electricity supply and demand
  - Reliability standards and planning for remote isolated micro-systems versus interconnected systems
  - Demand management, energy efficiency and conservation and how these programs and activities can contribute to planning and management of the electricity system

4. Time Frame for RFP Submission

Proposal submissions are to be submitted by May 5, 2014 at 4:00pm (NT).
5. **Required Expertise and Capabilities**

- Engineering and technical expertise necessary to conduct a comprehensive review of the provincial electricity system, particularly in the areas of electrical system planning and reliability.
- Demonstrated expertise in electricity utility and regulatory governance, and decision making related to oversight of the electricity sector.
- Capabilities within the project team to meet review requirements within the scope of work.

6. **Proposal Submissions**

The consultant submission should include:

- Anticipated role/contribution and previous experience/curriculum vitae for each of the consultant’s team members
- Demonstrated ability to undertake and complete the work in an impartial manner, including full disclosure of previous work undertaken for stakeholders in the NL electricity system.
- Bibliography of previous relevant work by the proponent and its team members
- Detailed breakdown of budget (e.g. fees, per diems, consultant costs, travel, report production costs, incidentals)
- Workplan, scope and schedule of entire project including approach and methodology to research and analysis, and jurisdictional review to meet scope of work outlined in this RFP as well as provision of a final report(s) and presentation.
- Any additional information the consultant sees as relevant to its proposal submission.

The Department of Natural Resources has not indicated an overall budget estimate for this work as part of this RFP. Bidders are asked to submit their own budget estimates and format for the work in line with their proposed work plan and their consultant rates and fees. Information that bidders should incorporate in their proposal to help in the evaluation should include:

- Overall project cost/budget, as well as budget for completion of each of the three analysis areas.
- Each project team member per diem/hourly rates and total hours/days to be spent working on the project. Please note that per diem rates should be based on 7.5 hours/day to provide a consistent basis for RFP evaluation.
- Project cost/budget for any associated project travel in total and broken down by consultant team member. The submissions should also discuss the purpose of travel in relation to the project.
- Budget and time allocation details to include total cost and hours/days and that for each consultant team member (associated costs and hours/days) related to various project components including research and review, as well as report preparations, writing, delivery and presentation.

The consultant can also expand and detail the budget further based on the work components in its work plan.

If a perceived bias exists with a team member or an issue with competency and capacity, the Department in its sole discretion reserves the right to direct a successful proponent to remove and replace team members. The successful proponent, on receiving such direction, shall replace subject personnel with persons of satisfactory and acceptable independence, competence and experience.
All proposal submissions related to this request for proposals must be delivered in a sealed package and clearly marked with the title “Review of the Newfoundland and Labrador Electricity System” to the Government Purchasing Agency, 30 Strawberry Marsh Road, St. John’s, Newfoundland and Labrador, Canada, A1B 4R4 no later than the RFP closing date of May 5, 2014 at 4:00pm (NT). A proposal package shall include one (1) signed original and six (6) complete paper copies and one (1) complete electronic copy in Adobe Reader format. Facsimile or electronic only proposals are not acceptable and will not be considered.

All proposals must remain valid and open for acceptance for not less than ninety (90) calendar days from the closing date of this RFP.

Consultants are solely responsible, and without recourse for any expenses they incur in preparing and submitting a proposal and for its participation in the RFP process including, but not limited to, attending any interviews or presentations requested by the Department of Natural Resources and providing any additional information that may be requested. The Department of Natural Resources shall not defray nor be liable for any reason for any expenses incurred by the consultant in responding to this RFP.

All proposals and accompanying documentation submitted under this request for proposals are considered the property of the Department of Natural Resources and will not be returned.

All proposals must address the content of this RFP. Proposals should clearly demonstrate a thorough understanding of the RFP, and its stated requirements and criteria. The Department of Natural Resources will disqualify proposals that do not demonstrate this understanding and do not include the information that is requested in the RFP.

7. **Project Deliverables**

   - Up to three (3) draft reports, one (1) for each analysis area - including submission of electronic version and six (6) hard copies. Each final report shall be delivered in a research report format in six (6) hard copies and an electronic format agreed by the Department of Natural Resources and the consultant. The consultant will also deliver any related and supporting work, reports and documentation from the completion of this work. The consultant should be aware that any work undertaken and completed by the Department of Natural Resources, including that done by consultants on its behalf, is subject to public release.
   - Present final expert reports in St. John’s.

8. **Proposal Acceptance**

The Department of Natural Resources reserves to itself the unfettered right to reject any or all responses received in response to this Request for Proposals and the department is not bound to accept the highest ranking or any response. The department may elect to cancel this Request for Proposals at any time with or without cause and no liability shall accrue to the Department of Natural Resources nor the Government of Newfoundland and Labrador as a result of its exercise of its discretion in this regard.

Should the Department of Natural Resources decide not to accept any proposal received, all proponents will be given notice of such decision.
The proposal of the successful proponent will form part of any resulting agreement by attachment and incorporation by reference. Claims made in the proposal will constitute contractual commitments. Any provision in the proposal may be included in the resultant agreement as a direct provision thereof.

Any agreement resulting from this RFP shall be governed by the laws of the Province of Newfoundland and Labrador. Any agreement issued pursuant to this RFP shall be issued in the name of the proponent exactly as that proponent’s personal or corporate name is stated in the RFP document. Funds payable (CDN$) for materials delivered pursuant to this Agreement shall be paid only to the proponent who is so listed as party to this agreement.

All documents and other records in the custody of, or under the control of some or all of the Department of Natural Resources, or its representatives shall remain confidential.

9. Proposal Evaluation

The Department of Natural Resources will evaluate proposals for completeness and suitability. The proposals will be scored out of 100 as follows:

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<thead>
<tr>
<th>Proposal Criteria</th>
<th>Value</th>
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<tbody>
<tr>
<td>Workplan, work schedule, approach</td>
<td>40</td>
</tr>
<tr>
<td>Consultant profile, proposed team, knowledge and experience</td>
<td>35</td>
</tr>
<tr>
<td>Consultant proposal bid price</td>
<td>25</td>
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Additional information may be requested from the consultant, if necessary, to substantiate and support proposal submissions to this RFP. Any such additional information will be provided at the consultant’s expense.

Proposals will be evaluated for completeness, conciseness and general suitability. Only proposals that have been deemed by the Department of Natural Resources to have met all mandatory requirements as identified within this RFP document will be evaluated.

Interviews or presentations may be requested of proponents, if necessary, to substantiate responses. Any presentations made on site will be at the proponent’s expense.

Proposals should identify study costs by category, including the per diem rates and number of days for each person on the study team. All costs should be quoted in Canadian dollars (CDN), exclusive of applicable taxes.

10. General Terms and Conditions

The successful proponent must be in good standing with the Workplace Health, Safety and Compensation Commission (WHSCC) or its equivalent in the jurisdiction where the proponent organization is located and provide a certification letter to this effect prior to receiving any payments for this contract.
If the proponent is a corporation, the organization must be licensed to conduct business in its own jurisdiction and shall be in good standing in that jurisdiction.

The Department of Natural Resources will retain copyright of any programs, systems or other intellectual property developed as part of this project. The proponent will, upon either completion or termination of the project, immediately transfer to the possession of the Department of Natural Resources all materials including, but not restricted to, all research reports, papers, tapes, slides, films, photographs, audio visual materials, electronic data and all input data or other information submitted to the proponent or developed by the proponent in the performance of the assignment, whether in draft or completed form.

11. Inquiries and Communication

Inquiries and questions related to this RFP are to be submitted to the Department of Natural Resources no later than April 28, 2014 at 4:00pm (NT). Inquiries and requests for clarification received after this date will not be addressed.

Please forward all inquiries to:
Paul Morris
Assistant Deputy Minister – Energy Policy
Department of Natural Resources
Government of Newfoundland and Labrador
Natural Resources Building
50 Elizabeth Avenue
P.O. Box 8700
St. John's, NL A1B 4J6
pmorris@gov.nl.ca

All inquiries are to be submitted in writing or by email, and the RFP title “Review of the Newfoundland and Labrador Electricity System” should be quoted on all correspondence. To ensure consistency and quality in the information provided to bidders, the Government Purchasing Agency shall provide, by way of amendment to this RFP in the form of an addendum to all bidders who have registered to receive amendments, any relevant information with respect to the RFP inquiries received in writing without revealing the source of those inquiries. Bidders are cautioned that it is their responsibility to ensure that they receive all information relevant to this RFP. The Government of Newfoundland and Labrador shall not be responsible for bidders who fail to inform themselves regarding the scope and nature of the work. The Government Purchasing Agency shall publish all amendments to the RFP website at www.gpa.gov.nl.ca. Bidders may register on the RFP website to receive amendments automatically by fax. Bidders not registered to receive amendments are solely responsible for ensuring they are aware of and have complied with all amendments by RFP closing time.

Verbal information or representations shall not be binding upon the Department of Natural Resources. Only written changes, alterations, modifications or clarifications approved by the Department of Natural Resources are binding. In order to be valid all such changes, alterations, modifications or clarifications shall be issued in the form of addenda and all such addenda shall become part of this RFP.
Information pertaining to the Department of Natural Resources obtained by the proponent as a result of its participation in relation to this RFP is confidential and must not be disclosed by the proponent except as authorized by the Department of Natural Resources.

The Department of Natural Resources may, during the assessment period, request a meeting with a proponent to clarify points in the proposal. Demonstrations of any or all proposed solutions may also be requested. No changes or amendments by the proponent will be permitted to its proposal after the RFP closing date. The proponent shall be responsible for any expenses incurred related to this requirement.