LOWER CHURCHILL PROJECT

EXPRESSION OF INTEREST No. G-002

ENGINEERING DESIGN AND PROJECT SUPPORT

Table of Contents

- Letter Restricted Use
- Restricted Use and Non – Disclosure Agreement
- Invitation Letter EOI Engineering Design and Project Support-Proponent
- Instructions to Proponents
- Engineering Design and Project Support Agreement Schedule
- Scope of Work and Technical Attachments
- Corporate Organization, Data and Financial Statement
- Health, Safety & Environment Questionnaire
- Health, Safety & Environment Requirements
- Quality Management Questionnaire
- Quality Requirements
- Information Questionnaire
- Execution Proposal
- Key Personnel

RESTRICTED USE
AND NON-DISCLOSURE AGREEMENT

This Agreement made as of the ___ ___day of _____ A.D. 2009.

BETWEEN: _____

_____

_____

(hereinafter referred to as “ ”)

AND: **NALCOR ENERGY,** a body corporate constituted pursuant to the *Energy Corporation Act* being Chapter, S. N. 2007, c. E-11.01 and having its head office at the City of St. John’s, Province of Newfoundland and Labrador. (hereinafter referred to as “Company”),

(hereinafter referred to individually as a “Party**”** and collectively as the “Parties**”**)

WHEREAS the Parties are desirous of exchanging information generally for the purpose of a mutual interest in pursuing _____
_____
(hereinafter referred to as the “Authorized Purpose”);

AND WHEREAS each Party desires to protect the confidentiality of the information that may be included in such exchange;

AND WHEREAS the Parties may exchange and/or disclose information in various forms and formats relating to the Authorized Purpose and that certain information may be non-public, confidential or proprietary in nature and the confidentiality of which the Parties desire to protect;

NOW THEREFORE THIS INDENTURE WITNESSETH THAT for and in consideration of the premises and mutual obligations contained herein and for other good and valuable consideration (the receipt, adequacy and sufficiency of which are hereby acknowledged), the Parties intending to be legally bound hereby agree as follows:

This Agreement made as of the ____ ___day of _____ A.D. 2009.

1. DEFINITIONS

For the purposes of this Agreement:

(a) “Affiliate” means any Person that directly or indirectly through one or more intermediaries, Controls or is Controlled by, or is under common Control with, a Party.

(b) “Agreement” means this Agreement as amended and supplemented from time to time.

(c) “Confidential Information” means any and all oral, written, electronic, magnetic or optical data and machine-readable information and data and any accompanying support materials and documentation disclosed directly or indirectly by one Party to another or to any Affiliate in relation to the Authorized Purpose. Such confidential information may include but not be

limited to any technical and geographical data, maps, drawings, data, surveys, memoranda, notes, reports, files, copies, extracts, inventions, discoveries, improvements, financial and market information, environmental reports, evaluations, legal opinions, names of shareholders, partners or joint venture partners, business arrangements together with all associated analyses, compilations, studies or other documents prepared by a Receiving Party or its Representatives with respect to confidential information provided by the Disclosing Party or its Representatives. Ownership and title of Confidential Information of the Disclosing Party shall at all times remain exclusively vested in the Disclosing Party.

(d) "Control" means, in the context of a relationship between two (2) or more Persons, control in any manner that results in control in fact, whether through direct or indirect ownership or control of fifty percent (50%) or more of voting shares, interests or trusts, representation on the board of directors or other governing body, or otherwise.

(e) "Disclosing Party" means a Party that discloses Confidential Information to the other Party.

(f) "Receiving Party" means a Party that receives Confidential Information from the other Party.

(g) "Person" is to be interpreted broadly and includes, without limitation (i) any individual or group, and any firm, corporation, company, association, partnership, joint venture, trust, unincorporated organization, a state or political subdivision thereof, a government and every agency or instrumentality thereof or any other legal entity, and (ii) the media.

(h) "Representatives" of a Party means shareholders, partners, directors, officers and employees of a Party or its Affiliate, as well as representatives, consultants, agents and financial, tax, legal and other advisors, engaged or retained by or assisting such Party in any way in connection with the Authorized Purpose.

2. CONFIDENTIALITY AND RESTRICTED USE

2.1 Disclosing Party agrees, subject to the terms and conditions of this Agreement, to disclose to a Receiving Party certain Confidential Information. The Disclosing Party shall have full discretion in determining what Confidential Information may be disclosed to a Receiving Party hereunder.

2.2 Subject to the terms and conditions of this Agreement, the Receiving Party shall not use the Confidential Information furnished to it by the Disclosing Party or its Representatives for any purpose other than for the Authorized Purpose and shall exercise due care and attention to maintain the confidentiality and secrecy of the Confidential Information.

2.3 The Receiving Party shall ensure that only those Representatives who need to have access to the Confidential Information shall have access to such Information and in such cases the Confidential Information shall only be used for the Authorized Purpose.

2.4 The Receiving Party shall not disclose the Confidential Information to any third party, directly or indirectly, without the prior written consent of the Disclosing Party, except as provided in Clause 2.5 and Article 3 hereof; and

2.5 Receiving Party may disclose Confidential Information to its Representatives who need to know such Information for the Authorized Purpose, subject to the foregoing requirements. Prior to such disclosure, each such Representative shall (a) be informed by the Receiving Party of the confidential nature of such Confidential Information, and (b) be requested or directed by the Receiving Party and such Representative shall agree, before receipt of

such Confidential Information, to treat such Confidential Information in accordance with the terms and conditions of this Agreement as if it is a party hereto.

2.6 Receiving Party shall return and deliver, or cause to be returned and delivered, to the Disclosing Party, or destroy and certify such destruction of Confidential Information, including copies and abstracts thereof, and all documentation prepared by or in the possession of the Receiving Party or its Representatives relating to the Confidential Information of the Disclosing Party within thirty (30) days of a written request by the Disclosing Party. The foregoing notwithstanding, Receiving Party may retain one copy of such Information for archival purposes only and subject to compliance with the terms of this Agreement.

2.7 Either Party may terminate the negotiations and/or the exchange of Confidential Information upon providing the other Party with fifteen (15) days prior written notice, in accordance with the provisions of Article 5 - Notice, of its intent to terminate the negotiations related to the Authorized Purpose.

2.8 The Parties confirm and agree that the provisions of this Agreement shall remain in full force and effect with respect to the disclosure of any Confidential Information notwithstanding that the negotiations with respect to the Authorized Purpose have been terminated pursuant to Clause 2.7 and all Confidential Information shall remain confidential and subject to this Agreement.

3. USE OF AND AUTHORIZED DISCLOSURE OF INFORMATION

3.1 Each Party as a Receiving Party acknowledges and agrees with the other Party as a Disclosing Party that:

(a) The Confidential Information is provided to the Receiving Party for the purpose of acquainting the Receiving Party with the Disclosing Party, its data and the business and operations of the Disclosing Party.

(b) The Disclosing Party and its Representatives do not make any representation or warranty, express or implies, as to the accuracy or completeness of the Confidential Information and that the Receiving Party is and shall rely upon its own investigations, due diligence and analyses in evaluating and satisfying itself as to all matters relating to the Confidential Information and the Disclosing Party and their business, affairs and assets or otherwise in any way related to the Authorized Purpose.

(c) The Disclosing Party and its Representatives and their respective directors, officers employees or agents shall not have any liability to the Receiving Party or its Representatives resulting from any use or reliance upon the Confidential Information by the Receiving Party or its Representatives.

(d) No license to Recipient, under any trademark, patent, or other intellectual property right, is either granted or implied by the conveying of Confidential Information to the Receiving Party.

(e) Nothing contained herein shall bind, require, or otherwise commit a Party or any Affiliate to proceed with any sale, acquisition, project, or other transaction of or with the other Party or any other entity.

3.2 Notwithstanding the foregoing, the obligations of restricted use and strict confidentiality set forth in this Agreement shall not extend to any information which:

(a) Receiving Party can clearly establish was known by Receiving Party or its Representatives prior to the disclosure thereof pursuant to this Agreement;

(b) is independently acquired or developed by the Receiving Party, or its Representatives without reference to the Confidential Information and without violating any obligations hereunder;

(c) is legally in possession of Receiving Party or its Representative prior to receipt thereof from Disclosing Party pursuant to this Agreement;

(d) enters the public domain through no fault of the Receiving Party or its Representatives;

(e) is disclosed to the Receiving Party or its Representatives, without restriction and without breach of this Agreement or any other obligation of confidentiality, by a third party who has the legal right to make such disclosure;

(f) is approved in writing for release by the Disclosing Party; or

(g) Receiving Party or any of its Representatives is legally required by law or by a governmental or court decree, order, regulation or rule or by any legal process to disclose whereby the Receiving Party will immediately provide notice to the Disclosing Party of such a requirement and assist the Disclosing Party, if required, in defending against disclosure of the Confidential Information.

(h) Company is at all times subject to the provisions of Newfoundland and Labrador legislation as such legislation may be amended or varied, including, but not limited to, the *Access to Information and Protection of Privacy Act*, SNL2002 c. A-1.1 as amended ("ATIPPA"). The Parties acknowledge that Company may incur disclosure obligations pursuant to the provisions of ATIPPA or other provincial legislation, and disclosure pursuant to such an obligation shall not be a breach of this Agreement. To the extent the Confidential Information meets the third party confidential information tests set out in ATIPPA, s. 27 of ATIPPA will require that disclosure of such information be refused if requested by a third party. Where there is a challenge to such refusal, a review by the Access to Information and Privacy Commissioner, and ultimately the Supreme Court of Newfoundland Trial Division may occur. Disclosing Party will be entitled to be represented and make arguments in support of non-disclosure at each step in this process.

(i) Any disclosure of Confidential Information pursuant to a legal obligation to make such disclosure shall not be a breach of this Agreement.

3.3 The Parties confirm and agree that the provisions of this Agreement shall remain in full force and effect for a period of three (3) years from the Effective Date of this Agreement with respect to any Confidential Information notwithstanding that this Agreement may be terminated or that the Confidential Information disclosed by the Receiving Party may have been returned or copies thereof destroyed prior to the expiration of the aforesaid time period.

3.4 Each Party hereto as a Receiving Party agrees that the other Party hereto as a Disclosing Party will be irreparably damaged if any provision of this Agreement is not performed by the Receiving Party or its Representatives in accordance with its terms and that monetary damages may not be sufficient to remedy any breach by the Receiving Party or its Representatives of any term or provision of this Agreement and each Receiving Party

further agrees that the Disclosing Party shall be entitled to equitable relief, including injunctive and specific performance, in the event of any breach hereof and in addition to any other remedy available at law or in equity.

4. PRESS RELEASES

4.1 Except as permitted by this Agreement or required by applicable legislation, each Party shall not make any public announcement or disclosure in connection with the Authorized Purpose when the public announcement or disclosure specifically mentions both Parties and/or the Authorized Purpose, without the prior written consent of the other Party. Furthermore, if such press releases are approved by a Party, each Party shall consult with the other Party prior to issuing or making, and allow the other Party a reasonable opportunity to comment on the content of, any approved press releases or other public statements or disclosures with respect to the subject matter of this Agreement pertaining to the Authorized Purpose.

5. NOTICES

5.1 All notices, requests, demands, consents, waivers and other communications given hereunder shall be in writing, marked “Private and Confidential”, and shall be deemed to have been duly given if delivered by hand or by sending same by facsimile communication or other similar form of communication to the following addresses:

If to_____, to:

_____
_____
_____

Attention : _____
Fax : ( )_____

if to Nalcor Energy, to:

Nalcor Energy - Lower Churchill Project
Hydro Place, 500 Columbus Drive
P.O. Box 12800, St. John’s, NL
Canada A1B 0C9

Attention: Clifford C. Rowe
Contracts Coordinator, Lower Churchill Project
Fax: (709) 737-1985

Any such notice, request, consent, demand, waiver or other communication shall: (i) if delivered, be deemed to have been given or made at the time of delivery; and (ii) if sent by fax or other similar form of written communication, be deemed to have been given or made at the time in which it was successfully transmitted as evidenced by automatic confirmation of receipt.

6. ENTIRE AGREEMENT

6.1 This Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof, and any and all previous representations with respect to such subject matter, either oral or written, are hereby annulled and superseded.

7. SEVERABILITY

7.1 The Parties acknowledge and agree that the restrictions contained in this Agreement are both reasonable and necessary to protect the commercial interests of the Parties and their Affiliates. Accordingly, if any provision of this Agreement is held to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision or part thereof and the remaining part of such provision and all other provisions hereof shall continue in full force and effect, and the Parties shall use their reasonable, good faith efforts to achieve the purpose of the invalid or unenforceable provision or part thereof by a new valid and enforceable stipulation.

8. WAIVER AND AMENDMENTS

8.1 It is understood and agreed that a failure or delay by any Party in exercising any right, power or privilege hereunder will not operate as a waiver thereof, nor will any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege hereunder; and

8.2 This Agreement may be amended or modified only by an instrument in writing signed by authorized representatives of both Parties to this Agreement.

9. ASSIGNMENT

9.1 It is agreed that neither this Agreement nor any of the rights or obligations of the Parties under this Agreement may be assigned, in whole or in part, by any Party without the prior written consent of the other Party.

10. GOVERNING LAW AND FORUM

10.1 This Agreement shall be governed by and interpreted according to the laws of the Province of Newfoundland and Labrador, and all actions, suits, and proceedings arising out of this Agreement shall be determined in a court of competent jurisdiction in the Province of Newfoundland and Labrador, subject to any right of appeal to the Supreme Court of Canada.

11. COUNTERPARTS

11.1 This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

12. GENERAL

12.1 The Parties acknowledge to one another that each respectively intends to perform its obligations as specified in this Agreement in good faith.

12.2 In this Agreement the use of the singular number includes the plural and vice versa.

12.3 Captions or descriptive words at the commencement of the various sections are inserted only for convenience and are in no way to be construed as a part of this Agreement or as a limitation upon the scope of the particular section to which they refer.

RESTRICTED USE
AND NON-DISCLOSURE AGREEMENT

13. LANGUAGE OF AGREEMENT

13.1 Documentation, required submittals and all other communications, whether verbal or written, shall be in English.

IN WITNESS WHEREOF, each Party has executed this Agreement by its duly authorized representatives.

SIGNED, SEALED AND DELIVERED by _____., in the presence of:

_____

_____

_____

SIGNED, SEALED AND DELIVERED by Nalcor Energy, in the presence of

Nalcor Energy

_____

_____

nalcor energy
LOWER CHURCHILL PROJECT

Hydro Place. 500 Columbus Drive.
P.O. Box 12800. St. John's. NL
Canada A1B 0C9
t. 709.737.1833 or 1.888.576.5454
f. 709.737.1985
Doc. No.

XX February 2009

<<Proponent>>

<<Address>>
<<City, Province, Postal Code>>

Attention: <<Contact Person>>

EXPRESSION OF INTEREST (EOI) No. "G-002"
ENGINEERING DESIGN AND PROJECT SUPPORT AGREEMENT
LOWER CHURCHILL PROJECT DEVELOPMENT

Dear :

Nalcor Energy (Nalcor) is developing plans to install (2) new hydroelectric developments, one at Gull Island and the other at Muskrat Falls on the lower Churchill River in Labrador.

On behalf of Nalcor Energy, we have enclosed an Expression of Interest (EOI) for the Engineering Design and Project Support Agreement, for your review and consideration.

While this EOI is related only to the Gull Island Hydroelectric Facility and associated Transmission System, Nalcor Energy at its discretion reserves the right to extend this Agreement with the successful Proponent to include the Muskrat Falls Hydroelectric Facility and associated Transmission System at a later date.

The purpose of this EOI is:

1) assist Nalcor in defining the project delivery method to be followed for the Lower Churchill Project. To achieve this, Proponents will:

a) review and respond to the proposed project delivery method identified in the EOI.
b) identify (if any) Proponent proposed alternative project delivery methods for the Lower Churchill Project.

2) to assist Nalcor in the development of an approved Bidders List to receive the subsequent RFP.

You are hereby invited to submit a response to this EOI for the provision of the services related to the Engineering Design and Project Support Agreement for the Lower Churchill Project.

The Proponent's Expression of Interest Response should follow the documents listed below and the Instructions to Proponents which are attached:

Instructions to Proponents
Engineering Design and Project Support Agreement Schedule
Scope of Work and Technical Attachments
Corporate Organization, Data and Financial Statement
Health, Safety and Environment Questionnaire
Health, Safety and Environment Requirements
Quality Management Questionnaire
Quality Requirements
Information Questionnaire
Execution Proposal
Key Personnel

EOI documents will be made available to Proponent electronically through a file transfer protocol (FTP) site. It is the Proponent's responsibility to access the FTP site and download all associated documents. The FTP site can be accessed through a web browser at the following address; ftp://142.163.56.233: 10421, in accordance with these instructions. Your user name and password for access to this site are as follows:

Username: _____
Password: _____

Nalcor, for the purposes of this EOI and as described in the Scope of Work and Technical Attachments, has divided the Scope of Work into four (4) sections which include for the provision of engineering-specific services for the Lower Churchill Project by discrete physical project components and for the Provision of Support Personnel as follows:

Scope of Work A: Engineering–specific services for Gull Island Hydroelectric Development

Scope of Work B: Engineering–specific services for High Voltage Direct Current Transmission System Specialties

Scope of Work C: Engineering–specific services for High Voltage Overhead Transmission Lines (ac and dc)

Scope of Work D: Provision of Support Personnel to bolster Company led Integrated Project Team

This breakdown is a result of our preliminary understanding of the market place and an appetite of potential consultants / contractors to complete specific scopes of work based upon their individual areas of expertise. Recent discussions with engineering contractors confirm our understanding of the market place, however it also became clear that the engineering contractor community may want to form Joint Ventures or Partnerships to:

1) take on the entire Scope of Work for the Engineering Design and Project Support Agreement for the Lower Churchill Project or

2) propose an alternative method to execute the work. One result of this EOI is the potential formation of those joint ventures and or partnerships. Upon review of the responses to this EOI, including any alternatives proposed, Nalcor may modify the Scope of Work breakdown prior to the issuance of any subsequent Request for Proposal.

Sealed Responses to the Expression of Interest must be received at the Submission Address defined in the Instructions to Proponents attached hereto, on or before 15:00 hours local St. John's, Newfoundland and Labrador time on _____. EOI responses received after the deadline for receipt, as noted above, will not be considered.

Nalcor Energy is not liable for any expenses incurred by Proponent in the preparation or submittal of its Expression of Interest Response including those incurred as a result of discussions and / or clarifications.

If you have any question as to the meaning or interpretation of any documents submitted herewith, please request additional information in writing either by email or by fax to the undersigned at the above address (fax: 709-737-1985) with reference noted as Lower Churchill Project, "**Expression of Interest" EOI No. G-002 "Engineering Design and Project Support Agreement**".
Nalcor will provide a written reply to all Proponent(s) as soon as possible.

Sincerely,

Clifford C. Rowe
Contracts Coordinator

Attachments:

Instructions to Proponents
Engineering Design and Project Support Agreement Schedule
Scope of Work and Technical Attachments
Corporate Organization, Data and Financial Statement
Health, Safety and Environment Questionnaire
Health, Safety and Environment Requirements
Quality Management Questionnaire
Quality Requirements
Information Questionnaire
Execution Proposal
Key Personnel

INSTRUCTIONS TO PROPONENTS

TABLE OF CONTENTS

1.0 INTRODUCTION / GENERAL INSTRUCTIONS 4
1.1 Introduction 4
1.2 General Instructions for Preparing an Expression of Interest Response 4
1.3 Qualifications of Proponent 5
1.4 Discrepancies, Omissions, Clarifications 5
1.5 Preparation and Submittal of Expression of Interest Response 6

2.0 COMMERCIAL INSTRUCTIONS 7
2.1 Compensation Model 7
2.2 Parent Company Guarantee(s) / Irrevocable Letter(s) of Credit 8
2.3 Proprietary Rights 8

3.0 TECHNICAL SECTION 8
3.1 General 8

4.0 HEALTH, SAFETY & ENVIRONMENT AND QUALITY MANAGEMENT 9

5.0 NEWFOUNDLAND AND LABRADOR BENEFITS 9

6.0 INSTRUCTIONS SPECIFIC TO THIS EXPRESSION OF INTEREST RESPONSE 10

INSTRUCTIONS TO EXPRESSION OF INTEREST PROPONENTS

DEFINITIONS

For the purposes of this Expression of Interest (EOI), the following definitions apply:

"Addenda" means the documents issued by Company to all (EOI) Proponents during the Expression of Interest period, containing additional information or corrections, made by Company, to the Expression of Interest already issued.

“Company” shall mean Nalcor Energy and any of their respective successors or assigns.

“EOI” means Expression of Interest.

“LCP” means Lower Churchill Project.

“Owner” shall mean Nalcor Energy

"Proponent" means the person, corporation, partnership, joint venture, company or other organization which has submitted an Expression of Interest Response to Company for the performance of the Work.

1.0 INTRODUCTION / GENERAL INSTRUCTIONS

1.1 Introduction

The Churchill River, located in the Province of Newfoundland and Labrador, Canada is a significant source of renewable, clean electrical energy; however, the potential of this river has yet to be fully developed. The existing 5,428 megawatt (MW) Churchill Falls Generating Station, which began producing power in 1971, harnesses about 65 per cent of the potential generating capacity of the River. The remaining 35 percent is located at two sites on the lower Churchill River, known as the Lower Churchill Project.

Project Description

The Lower Churchill Project consists of two undeveloped hydroelectric sites and associated transmission systems: Gull Island Hydroelectric Development, located 225 kilometers downstream from the existing Churchill Falls Generating Station; and Muskrat Falls Hydroelectric Development, located 60 kilometers downstream from the proposed Gull Island Development. Combined, the projects can produce energy to supply up to 1.5 million households annually and contribute significantly to the reduction of air emissions from thermal, coal and fossil fuel power generation. In particular the projects would displace an estimated 16 megatonnes of carbon dioxide emissions annually from comparable production from coal thermal generation.

The Gull Island facility will consist of a generating station with a capacity of 2,250 MW, while the Muskrat Falls facility will consist of a generating station of 824 MW in capacity.

The transmission facilities will include a High Voltage Direct Current (HVdc) system comprised of high voltage overhead lines crossing from Labrador to the island of Newfoundland via a sub-sea cable, and associated converter stations. High Voltage Alternating Current (HVac) overhead transmission lines will interconnect Gull Island to the existing Churchill Falls Generating Station and a HVac transmission line will connect Gull Island Hydroelectric Development to Muskrat Falls Hydroelectric Development. There is a potential for the transmission facilities to connect the island of Newfoundland to Nova Scotia or New Brunswick via additional transmission lines, a sub-sea cable and associated converter station.

1.2 General Instructions for Preparing an Expression of Interest Response

1.2.1 Upon receipt of the EOI, the Proponent must promptly confirm to the Company its intent to respond to the Expression of Interest. The acknowledgement of intent to submit an Expression of Interest shall include as a minimum; confirmation of the closing date and time and ability to submit on time, **interest in all or single scopes of work** in accordance with the Scope of Work and Technical Attachments. The signature on this document should be from a signing officer of the Proponent. **Where Proponent declines to submit a proposal it shall immediately return to Company all documents which comprise this EOI or if acceptable to Company provide a letter certifying to the Company, that all documents have been destroyed and not copied to any third party.**

1.2.2 Proponent shall incorporate in the Expression of Interest all relevant and required information concerning the Work as stated hereunder and submit the Expression of Interest in the format contained herein.

1.2.3 As part of Proponent's response to this EOI, Proponent is required to complete the Corporate Organization, Data and Financial Statement and return it to Company together with any supplementary data required therein.

Should any of this data subsequently change, then Proponent must advise Company immediately and resubmit the subject statement and supplementary data as applicable.

1.2.4 Proponent shall not be reimbursed for any costs, expenses or charges which Proponent incurs or is required to expend in its preparation of the Expression of Interest hereunder, including Proponent's travel and attendance at any Expression of Interest clarification meetings, and Company shall be under no liability whatsoever for or in respect to the payment of any of said costs, expenses or charges.

1.2.5 The Proponent(s) may submit Expressions of Interest to undertake all the Scopes of Work, combinations of one or more of the Scopes of Work or alternative project delivery method(s). The successful Proponent that is awarded one or more of the Scopes of Work associated with this Engineering Design and Project Support Agreement will not be permitted to perform or participate in any associated engineering work for construction contractors or equipment suppliers for related project work.

If alternative project delivery methods are proposed, the Proponent(s) shall clearly explain the overall advantages of the alternative method as compared to the Company led integrated project management team model described in the "Scope of Work" section of this EOI.

1.3 Qualifications of Proponent

1.3.1 If requested by Company, Proponent shall furnish evidence additional to that requested in the Corporate Organization, Data and Financial Statement and Information Questionnaires to satisfy Company that Proponent has the necessary available resources, ability, experience, facilities and financial ability to perform the Work as set out in the Expression of Interest.

1.4 Discrepancies, Omissions, Clarifications

1.4.1 Proponent is required to study carefully the Expression of Interest (EOI) and to obtain all information as it may require enabling it to submit its Response. Proponent shall be deemed to have satisfied itself as to the correctness and sufficiency of its Response. No claims whatsoever shall be entertained arising out of Proponent's failure to study the Expression of Interest. Responses to the EOI shall not contain any conditions regarding the availability of labour, staff, equipment, materials, permits, authorizations or anything whatsoever that Proponent is required to provide.

1.4.2 Should Proponent find discrepancies in or omissions from, the EOI, or have any doubt as to the meaning or intent of any part thereof, Proponent shall at once notify Company by letter or by facsimile to the following address:

Nalcor Energy - Lower Churchill Project
Hydro Place, 500 Columbus Drive.
P. O. Box. 12800, St. John's, NL
Canada, A1B 0C9

Attn: Clifford C. Rowe, Contracts Coordinator
Telephone: (709) 737-7805

Facsimile: (709) 737-1985
Email address: cliffrowe@nalcorenergy.com

Ref: EOI No: G-002
Engineering Design and Project Support Agreement

1.4.3 Any additional information or clarification shall be issued by Company in writing, in the form of an Addendum, and shall be circulated to all Proponents. All Addenda shall be deemed to become part of the Expression of Interest. Oral instructions, corrections or interpretations shall not be binding.

1.4.4 Proponent shall promptly acknowledge receipt in writing of any and all Addenda and shall confirm in the Expression of Interest Response that the information contained in such Addenda has been considered in preparing it's Response.

1.5 Preparation and Submittal of Expression of Interest Response

1.5.1 The submission of an Expression of Interest Response indicates acceptance by Proponent of any and all conditions contained herein.

1.5.2 Where Proponent feels it would be advantageous to Company to depart in any way from any of the requirements, conditions and provisions set forth in the EOI, it shall present such departures as an alternative to, but together with, the Expression of Interest, explaining in full detail the nature and extent of the proposed departure and the consequent impact to schedules or any other aspect of the EOI. Such departures, if any, shall be clearly identified and listed in a section of the Expression of Interest devoted explicitly to that purpose. Consideration of any alternates shall be at the sole discretion of Company and, if selected for further interest, may be incorporated directly in any subsequent Request for Proposal.

1.5.3 Three (3) paper copies of the Sealed Expression of Interest Response (one bound original and two copies), and one electronic copy in (CD Format) shall be received on or before 1500 hours local Newfoundland time on the date and at the address shown below in Section 1.5.4.

Company reserves the right to extend the Expression of Interest closing date as a result of weather or for any reason before the EOI closing date.

1.5.4 Both the original and the copies and all documents in connection therewith shall be enclosed in one or more sealed packages marked:

Package No. _ of _
Lower Churchill Project
EXPRESSION OF INTEREST RESPONSE - DO NOT OPEN
(NAME OF PROPONENT):
ENGINEERING DESIGN AND PROJECT SUPPORT AGREEMENT
EOI No: G-002
Nalcor Energy - Lower Churchill Project
Hydro Place, 500 Columbus Drive
P. O. Box. 12800, St. John's, NL
Canada, A1B 0C9

Attn: Clifford C. Rowe, Contracts Coordinator
Telephone: (709) 737-7805
Facsimile: (709) 737-1985
Email Address: cliffrowe@nalcorenergy.com

No other markings shall appear on the package (s)

The Sealed Expression of Interest Response shall be delivered, on or before 1500 hours local Newfoundland time, on the date of the Expression of Interest Response closing date of April 7, 2009.

1.5.5 The original of the EOI Response shall be clearly marked "Original". The copies must be identical to the original and may be photocopied from the original after signature. If there are any discrepancies between the original, copies, or electronic version, the original shall prevail.

1.5.6 The Expression of Interest shall be signed by a duly authorized officer of Proponent. If Proponent is a corporation, the Expression of Interest must be signed in its name and on its behalf and under seal by a duly authorized signing officer of the corporation and shall be accompanied by a certified copy of a resolution of the Proponent authorizing such execution. The office held by the signing officer shall be shown.

1.5.7 If a partnership or joint venture submits an Expression of Interest Response, it shall submit with its Response a "Power of Attorney" executed by all of the general partners or members of the joint venture, designating and appointing one of the general partners or members of the joint venture as a "Management Sponsor", and authorizing the Management Sponsor to sign the Expression of Interest on behalf of Proponent, to act for and bind Proponent in all matters relating to the Expression of Interest and, in particular, to agree that each partner or members of the partnership or joint venture shall be jointly and severally liable for any and all of the duties and obligations assumed by Proponent under the Expression of Interest. The Expression of Interest Response shall be signed on behalf of the partnership or joint venture in its legal name by the Management Sponsor.

1.5.8 Proponent must submit the Expression of Interest responding to all items in the EOI and/or Attachments and Appendices thereto.

1.5.9 The Expression of Interest must be received at the above address on or before the time indicated in Section 1.5.4 above. Any Expression of Interest Response not complying with this condition may not be considered and may be returned, unopened, to Proponent.

2.0 COMMERCIAL INSTRUCTIONS

2.1 Compensation Model

The Lower Churchill Project has proposed to use the following Compensation Model for the future works associated with any subsequent award of the Engineering Design and Project Support Agreement, based upon cost reimbursable rates by position category. We anticipate having an Integrated Project Office in St. John’s, Newfoundland to house the Company’s Project Management Team and the subsequent engineering Consultant(s) teams with Company providing furnished office space, complete with computers, printers, telephones, fax, reproduction equipment and a standard office program suite similar to Microsoft Office and select management systems and /or design tools.

The Company also expects to pay a fee to the Engineering Design and Project Support Consultant. The exact details of the fee are being developed and we expect to finalize our strategy prior to our call for Request for Proposals.

2.2 Parent Company Guarantee(s) / Irrevocable Letter(s) of Credit

2.2.1 At no cost to Company, and if Proponent is successful in the execution of any Work associated with this Expression of Interest it shall, if required by Company, furnish to Company a joint and several Parent Company Guarantee as acceptable to Company, and executed by the ultimate parent(s) of each member or owner of the joint venture or partnership companies which shall obligate such parent companies to be liable for ensuring faithful performance of the Work (including financial performance) by the Successful Proponent. Said Parent Company Guarantee shall be unconditional and irrevocable throughout the term of any ensuing Agreement.

2.2.2 In addition to the foregoing, or in the absence of a Parent Company Guarantee acceptable to Company, Company shall have the right to require the Successful Proponent and/or its Parent(s) to provide Performance Guarantee(s) in the form of irrevocable and unconditional stand-by 'letter(s) of credit', payable to Company on demand in a form and format to be agreed with Company.

2.3 Proprietary Rights

2.3.1 Company does not wish to receive any information, which is subject to an obligation of confidence, whether such information is provided by Proponent, subcontractors or any third party.

2.3.2 <u>In order to confirm that such is the case, each Proponent must clearly and definitively state that its Expression of Interest Response:</u>

- does not include any confidential information of Proponent, its proposed subcontractors or any third party;
- where applicable, is based on provision to Company of good title to all items provided by Proponent in the performance of the Work, and
- does not include any restrictions covering data or proposed items that may be covered by Patents, Patent Applications, copyrights, or other Agreements of its own or of third parties.

2.3.3 If such conditions stated or inferred by Section 2.3.2 are not the case, then a thorough discussion covering each exception shall be presented as part of the Proposal.

3.0 TECHNICAL SECTION

3.1 General

3.1.1 The purpose of this section is to permit Company to assess the technical qualities of Proponent's Expression of Interest Response. In order to ensure that the technical merits of Proponent's Expression of Interest Response are fully recognised by Company's Evaluation Team, please ensure that the Expression of Interest Response responds to the following attachments:

- Scope of Work and Technical Attachments
- Health, Safety, & Environment Questionnaire
- Quality Management Questionnaire

- Information Questionnaire
- Execution Proposal including alternatives to the project delivery method
- Key Personnel

3.1.2 The evaluation of Proponents shall be carried out based upon the Proponent's response to the Expression of Interest (EOI) document. It is important that all questions are answered and all information supplied where requested.

4.0 HEALTH, SAFETY & ENVIRONMENT AND QUALITY MANAGEMENT

Proponent shall describe its Health, Safety and Environment and Quality Management Systems in terms of the key elements as further defined in the questionnaires attached hereto. Proponent shall also confirm it has reviewed and can comply with Lower Churchill Project Health, Safety and Environment Requirements and Quality Requirements also attached hereto.

- Health, Safety & Environment Questionnaire
- Health, Safety & Environment Requirements
- Quality Management Questionnaire
- Quality Requirements

5.0 NEWFOUNDLAND AND LABRADOR BENEFITS

Lower Churchill Project is committed to supporting the accrual of benefits for the people of this province. To maximize benefits, the Lower Churchill Project will be executed on an economic basis adhering to competitive business practices.

Proponent shall work together with all project stakeholders (the public, suppliers of goods and services, the workforce and governments) to promote opportunities in Newfoundland and Labrador while maintaining the economic viability of the project through access of "Best Value" in the acquisition of goods and services. "Best Value" is defined as a blend of total cost, quality, technical suitability, delivery and continuity of supply and services, where total cost is comprised of initial purchase price plus operation and maintenance costs. Within this framework, Proponent shall, with respect to work being performed for the project:

(a) Promote the employment of qualified Newfoundlanders and Labradorians on the project;

(b) Provide manufacturers, consultants, contractors and service companies in Newfoundland and Labrador with full and fair opportunity to participate on a competitive basis in the supply of goods and services;

(c) Provide first consideration to services provided and goods manufactured in Newfoundland and Labrador where those services and goods are competitive in terms of fair market price, quality and delivery;

(d) As necessary, carry out programs in Newfoundland and Labrador to promote education, training, technology transfer and research and development;

(e) Provide women with access to employment opportunities and train women in occupations where women have been traditionally under-represented;

(f) Ensure members of traditionally under-represented groups have access to employment, training and procurement opportunities. These groups include:

- Aboriginal persons
- Persons with Physical Disabilities
- Visible Minorities

Proponent shall indicate how it intends to comply with Newfoundland and Labrador Benefits by optimizing the Newfoundland and Labrador content of the Work. To this effect, Proponent is required to provide all information as set forth in the Corporate Organization, Data and Financial Statement noted above.

6.0 INSTRUCTIONS SPECIFIC TO THIS EXPRESSION OF INTEREST RESPONSE

The following is a list of documents/information which Proponent shall prepare and forward to Company. This is provided as a guide to Proponents and is not necessarily an exhaustive list of all submission requirements. Except as specifically noted, all such documents / information shall be submitted by Proponent with its Expression of Interest Response.

Description	Remarks
Acknowledgement of intent to respond to the Expression of Interest	Submit within 5 days of receipt of EOI by return email.
Corporate Organization, Data and Financial Statement, including details of Proponent, Owner Companies and or Ultimate Parent Companies as applicable for each joint venture and or partnership company.	Submit with Response
Health, Safety and Environment Questionnaire	Submit with Response
Quality Management Questionnaire	Submit with Response
Information Questionnaire, including any supporting documentation.	Submit with Response
Execution Proposal including alternative project delivery method(s).	Submit with Response
Details of any and all Technical Variations from Companies planned Scope of Work and Technical Attachments	Submit with Response
One (1) Original and Two (2) paper copies of Response and one (1) electronic copy	Submit with Response
Power of Attorney (to be submitted if Proponent is a joint venture or partnership).	Submit with Response
Key Personnel identified and resumes for all key personnel included	Submit with Response

Engineering Design and Project Support Agreement Schedule

ENGINEERING DESIGN AND PROJECT SUPPORT AGREEMENT SCHEDULE

This Engineering Design and Project Support Agreement Schedule reflects our approximate overall plans for the Lower Churchill Project, unless extended by Company. The dates below reflect on or about.

		Calendar Days
a)	**Expression of Interest Issue:**	**Start**
b)	**Expression of Interest Close:**	**Start plus 45 days**
c)	**Evaluation of Proponents Response:**	**Close plus 40 days**
d)	**Finalize Proponents List for RFP:**	**Close plus 50 days**
e)	**Issue RFP for Engineering Design:**	**Close plus 60 days**
f)	**Receive RFP Responses:**	**Close plus 100 days**
g)	**Complete Evaluation of RFP Responses:**	**Close plus 130 days**
h)	**Award Agreement to Successful Proponent:**	**Close plus 150 days**
		Total 195 days

SCOPE OF WORK
AND
TECHNICAL ATTACHMENTS

Note: This Scope of Work and Technical Attachments document may form a part of any subsequent Request for Proposal and will be included in any subsequent Agreement as a result of the Request for Proposal Process.

SCOPE OF WORK AND TECHNICAL ATTACHMENTS

Table of Contents

1.0 Introduction 3
1.1 General 3
1.2 Company's Project Gateway Process 4
1.3 Project Framing and Scopes of Work under Engineering Design and Project Support Agreement 4
1.3.1 Scopes of Work A, B & C: 4
1.3.2 Scope of Work D: 5
1.4 Contract Packages 5
1.5 Muskrat Falls Hydroelectric Development 5
1.6 Office Location 5
1.7 Acronyms 5
2.0 Component A – Gull Island Hydroelectric Development 7
2.1 Description of Component A 7
2.2 Scope of Work A 8
2.2.1 General 8
2.2.2 Earlier Work 8
2.2.3 Engineering Definition Required for Gate 3 9
2.2.4 Engineering Deliverables Summary 9
2.3 Capability 9
2.4 Design Liability / Responsibility 9
2.5 Best Practices 10
3.0 Component B – High Voltage Direct Current Transmission System Specialties 11
3.1 Description of Component B 11
3.2 Scope of Work B 12
3.2.1 General 12
3.2.2 Earlier Work 12
3.2.3 Engineering Definition Required for Gate 3 13
3.2.4 Engineering Deliverables Summary 13
3.3 Capability 13
3.4 Design Liability / Responsibility 13
3.5 Best Practices 14
4.0 Component C – High Voltage Overhead Transmission Lines 15
4.1 Description of Component C 15
4.2 Scope of Work C 15
4.2.1 General 15
4.2.2 Earlier Work 16
4.2.3 Engineering Definition Required for Gate 3 16
4.2.4 Engineering Deliverables Summary 16
4.3 Capability 17
4.4 Design Liability / Responsibility 17
4.5 Best Practices 17
5.0 Scope of Work D – Provision of Support Personnel 18
5.1 Description of Scope of Work D 18
6.0 Existing Technical Information 19
7.0 Staffing Requirements for Project Management Team 21
7.1 Phase 3 21
7.2 Phase 4 21

8.0 Organization and Interfaces 22
8.1 General 22
8.2 Company's Technical and Design Integrity Oversight 25
8.2.1 General 25
8.2.2 Design Basis Ownership 25
8.2.3 Independent Engineers / Technical Panels / Lenders' Engineers 25
8.2.4 Company Junior Engineers 26
8.3 Construction Management Group 26
8.4 Project Interface System 26
8.4.1 General 26
8.4.2 System Engineering 27
9.0 Consultant Management, Administration and Project Control 27
9.1 General 27
9.2 Engineering Deliverables 27
9.3 Project Control Systems 29
10.0 Integrated Management System 29
11.0 Company Provided Resources 30
12.0 Information Management 30
13.0 Risk Management 30
14.0 Document Management 31
15.0 Project Coding 31
16.0 Documentation for Operations 31
17.0 Canadian Regulations and Requirements 31
17.1 General 31
17.2 Codes and Standards 31
18.0 Newfoundland and Labrador Requirements Related to the Practice of Engineering and Geoscience 32

Attachment A – Contracts Package Listing and Engineering Deliverable Types by Package
Attachment B – Company Provided Documents

1.0 Introduction

1.1 General

Company currently plans to manage the development phase of the Lower Churchill Project utilizing a Company led, fully integrated project management team. The team will consist of Company personnel, personnel supplied under the Engineering Design and Project Support Agreement, and other personnel / consultants employed by Company. The project management team will be responsible for delivery of all Engineering, Procurement, and Construction Management (EPCM) functions, to the degree dictated by the Project's Execution Strategy, required to complete the Lower Churchill Project development phase.

While Company contemplates using a Company led integrated project management team model, Consultant may include, as an alternative, other proposed project delivery models for consideration by Company.

Figure 1 below provides an overview of the project management team model contemplated to manage the development phase of the Lower Churchill Project.

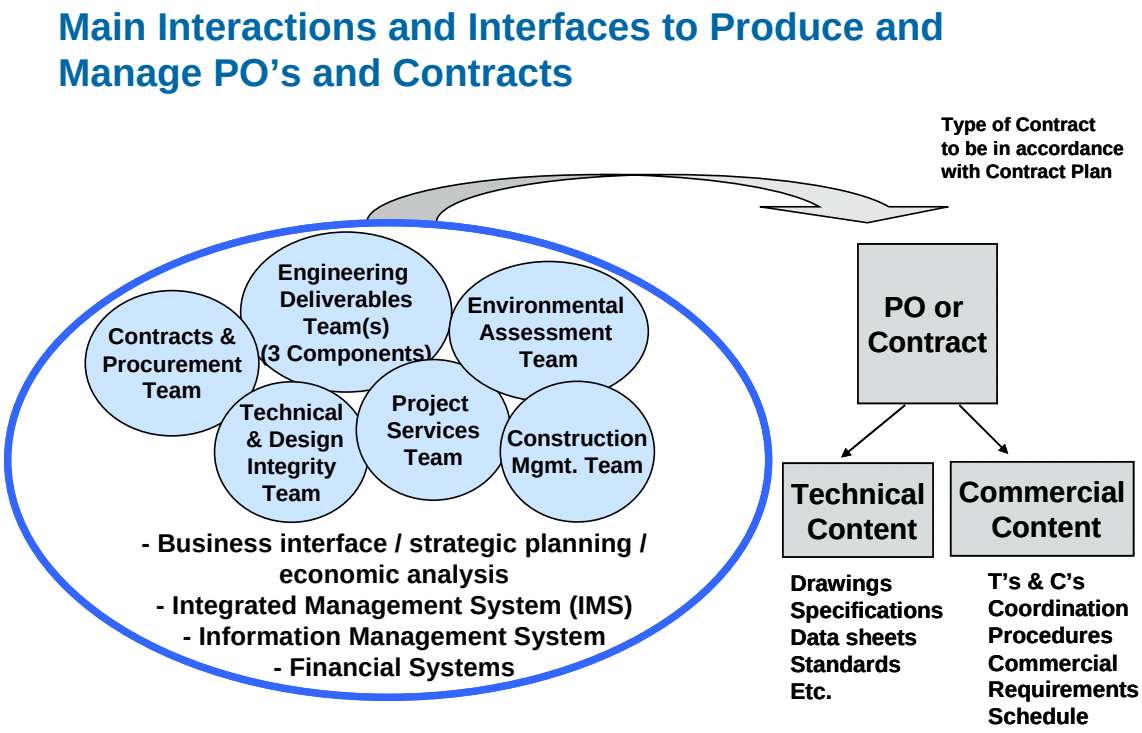

Figure 1 –Project Management Team Model

1.2 Company's Project Gateway Process

The overarching project execution process for the Lower Churchill Project is the Gateway Process depicted in Figure 2 below. The scope of work to be performed under the Engineering Design and Project Support Agreement will span from start of Phase 3 through Phase 4 and extending to start of operations.

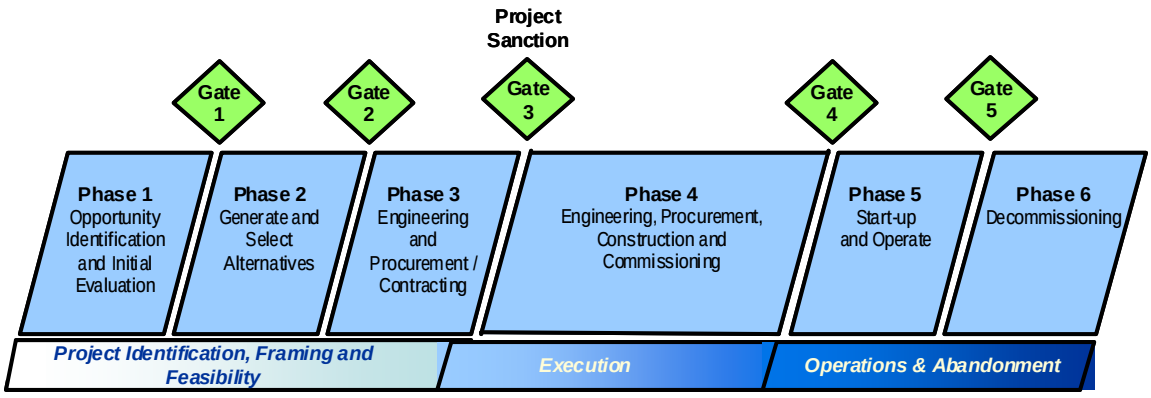

Figure 2 – Lower Churchill Project Gateway Process

1.3 Project Framing and Scopes of Work under Engineering Design and Project Support Agreement

1.3.1 Scopes of Work A, B & C:

For project management purposes, and for the purpose of obtaining engineering-specific services under the Engineering Design and Project Support Agreement, the Lower Churchill Project is broken down into three (3) discrete physical project components as follows:

Component A: Gull Island Hydroelectric Development
Component B: High Voltage Direct Current Transmission System Specialties
Component C: High Voltage Overhead Transmission Lines (ac and dc)

Scopes of Work A, B and C under the Engineering Design and Project Support Agreement are as follows:

Scope of Work A: Provision of engineering-specific services for Component A.
Scope of Work B: Provision of engineering-specific services for Component B.
Scope of Work C: Provision of engineering-specific services for Component C.

The detailed physical descriptions of each of the noted project components A, B and C, and the associated engineering-specific scopes of work applicable to the Engineering Design and Project Support Agreement are included in Sections 2.0, 3.0 and 4.0 of this document.

1.3.2 Scope of Work D:

In addition to the provision of engineering-specific services applicable to physical Components A, B and C, other personnel may be provided under the Engineering Design and Project Support Agreement to bolster the Company led project management team. This scope will be referred to as:

Scope of Work D: Provision of Support Personnel

The detailed description of the requirements associated with Scope of Work D is included in Section 5.0 of this document.

1.4 Contract Packages

A complete listing of the anticipated contract packages associated with the Lower Churchill Project, complete with the proposed contracting strategy, is included in Attachment A to this Scope of Work and Technical Attachments. Contracting and procurement activities will be undertaken by the project management team on Company paper.

1.5 Muskrat Falls Hydroelectric Development

Work associated with development of the Muskrat Falls Hydroelectric Development is not included in the scope for the Engineering Design and Project Support Agreement. Company reserves the right to extend the Engineering Design and Project Support Agreement to include the Muskrat Falls Development should Company decide to proceed with that development.

1.6 Office Location

Company intends to establish a main project office in St. John's, Newfoundland. It is expected that Company's project office will initially house the entire project management team including personnel provided under the Engineering Design and Project Support Agreement. Accordingly, it is intended that the engineering-specific scope of work to be performed under the Engineering Design and Project Support Agreement will be carried out in Company's main project office.

As the project moves into the Execution Phase (Phase 4 - refer to Figure 2) Company will maintain the main project office. In addition, Company will establish site offices which will house portions of the project management team as required to meet the project requirements. Site offices will include offices at the various construction sites throughout the Province of Newfoundland and Labrador as well as offices located in various vendor facilities.

1.7 Acronyms

ac	alternating current
CADD	Computer-Aided Design
CF	Churchill Falls Hydroelectric Facility
CFRD	Concrete Faced Rockfill Dam
dc	direct current
EPC	Engineering, Procurement and Construction
EPCM	Engineering, Procurement and Construction Management
GI	Gull Island
HADD	Harmful Alteration Disruption or Destruction
HVdc	High Voltage direct current
IMS	Integrated Management System
km	kilometre
kV	kilovolt

MW	Megawatt
PEG NL	Professional Engineers and Geoscientists of Newfoundland and Labrador
PMF	Probable Maximum Flood
PO	Purchase Order
TLH	Trans Labrador Highway
WS&T	Works, Services and Transportation

2.0 Component A – Gull Island Hydroelectric Development

2.1 Description of Component A

Gull Island is one of two hydroelectric developments being planned for the lower Churchill River. The remotely controlled 2,250 MW Gull Island Hydroelectric Plant will be comprised of the following sub-components and associated ac connector lines to an ac switchyard:

a) 35 km of access roads, including upgrading and new construction, and temporary bridge spanning the Churchill River.
b) A 2,000 person Accommodations Complex (for construction period)
c) Permanent accommodations – 40 person capacity
d) Reservoir clearing.
e) Replacement fish habitat.
f) Erosion control facilities for construction period.
g) A 100 m high x 1400 m long concrete faced rockfill dam (CFRD), with upstream and downstream cofferdams, including:
   - 1,440,000 m^3 of foundation overburden excavation, and 11,200,000 m^3 of earth/rockfill,
   - 31,000 m^3 of concrete in a slurry diaphragm wall (maximum depth to bedrock +/- 50 m),
   - 44,000 m^3 of concrete in upstream face, and
   - 240,000 m^3 of roller compacted concrete (RCC) in two interface dams.
h) River diversion designed for 4,800 m^3/s flow, including:
   - 2,350,000 m^3 of overburden and 1,040,000 m^3 of open cut rock excavation,
   - 26,000 m^3 concrete and 4 vertical lift gates at inlet portal,
   - 2 tunnels, 14 m wide x 20.5 m high inverted “U” with 528,000 m^3 of tunnel rock excavation, and
   - A fish compensation flow facility in one tunnel.
i) Spillway – capacity of 20,800 m^3/s, including:
   - Approach and discharge channels, a flip bucket and plunge pool,
   - 8 vertical lift gates,
   - 2,260,000 m^3 of overburden and 5,430,000 m^3 of open cut rock excavation, and
   - 93,000 m^3 of concrete.
j) Intake and penstocks, including:
   - 5 intakes with gates and trash racks,
   - 67,000 m^3 of open cut rock excavation,
   - 81,000 m^3 of concrete,
   - 5 tunnel penstocks,
   - 74,000 m^3 of tunnel rock excavation, and
   - 30,000 m^3 of concrete lining and partial steel lining.
k) Powerhouse and tailrace, including:
   - 5 turbine generator units at 450 MW with associated ancillary electrical/mechanical and protection/control equipment,
   - 5 power transformers, located on a rock bench above the powerhouse,
   - 2 overhead cranes,
   - 880,000 m^3 of overburden and 560,000 m^3 of open cut rock excavation,
   - 120,000 m^3 of concrete, and
   - 2,600 tonnes of structural/miscellaneous steel and metal cladding.
l) Split ac Switchyard, including:
   - 5-230 kV connector lines from powerhouse,
   - 2 outgoing 230 kV lines, and
   - 2 outgoing 735 kV lines.
m) Churchill Falls Switchyard extension.

n) The Port facilities at Happy Valley Goose Bay need to be investigated and some upgrades may be necessary as a result of those investigations. The extent of those upgrades will be determined in the future.

Further information related to Component A is contained in "Lower Churchill Project – Basis of Design", document number MSD-PM-006 located in, Attachment B, Company Provided Documents herein.

2.2 Scope of Work A

2.2.1 General

Scope of Work A under the Engineering Design and Project Support Agreement includes for the provision of complete engineering services including engineering management and supervision of engineering-specific personnel for scope under the Engineering Design and Project Support Agreement, for Component A – Gull Island Hydroelectric Development. With reference to Figure 2 - Lower Churchill Project Gateway Process, services will span from start of Phase 3 through Phase 4 and extending to start of operations.

Scope will include all levels of engineering necessary to meet the requirements dictated by the Project's contracts plan, and includes preparation of design briefs, design reports, engineering drawings, documents, technical specifications and other technical content for inclusion in contract and procurement packages (both pre and post contract award), system engineering, as well as the provision of analytical and technical support through to project completion. Scope will also include preparation of commissioning procedures, in conjunction with Company.

All engineering work shall be performed by experienced personnel, and Consultant shall use the necessary tools, either Company provided or agreed to be supplied by Consultant and endorsed by Company e.g. recognized and verified computer programs, to perform the engineering work in a professional manner and in accordance with accepted engineering practices.

A complete listing of the contract packages associated with Component A – Gull Island Hydroelectric Development is included in Attachment A. Contracting and procurement activities will be undertaken by the project management team on Company paper. It is expected that Consultant engineering personnel will, as part of their engineering-specific duties, perform the role of package engineer in support of contracting activities.

As detailed in Section 5.0 of this Scope of Work and Technical Attachments, in addition to engineering-specific services the scope of the Engineering Design and Project Support Agreement includes for the provision of other personnel (Scope of Work D) who may be incorporated into the Company led project management team as required by Company to bolster the project management team. It is expected that selected engineering personnel, upon completion of engineering-specific scopes associated with Component A, may be reassigned to other roles within the project management team. Such roles may not necessarily be limited to execution of physical Component A. In particular, it is expected that selected personnel will participate in site activities, including commissioning.

2.2.2 Earlier Work

Significant engineering work was carried out by Company in 2007 and 2008. A complete listing of the relevant documentation (as well as a selected listing of earlier study reports from 1997-2000 timeframe), is contained Section 6 – "Existing Technical Information" herein, this documentation will be made available in any subsequent Request for Proposal. It is noted that a broader base of study reports dating back to the 1960's is available in-house. As a result of the earlier work, the overarching project definition is now in place as described in the "Lower Churchill Project – Basis

of Design". Work under the Engineering Design and Project Support Agreement will build on, and not duplicate, the earlier work.

2.2.3 Engineering Definition Required for Gate 3

With reference to document MSD-PJ-006 "Cost Estimate Classification System" located in this Appendix 3, Attachment B, Company Provided Documents herein, it is a requirement that a Class 2 cost estimate be in place for the Lower Churchill Project at Gate 3 (refer to Figure 2 - Lower Churchill Project Gateway Process). In order to realize the required cost estimate accuracy, it is anticipated that the level of project engineering and associated documentation for inclusion in the Component A contract packages at the contract bid stage during Phase 3 will, of necessity, need to be some 70% complete. The remaining engineering and associated documentation to achieve full project definition would be prepared by Consultant during the bid evaluation phase for the various contracts (during the remainder of Phase 3) continuing through Phase 4, and would be scheduled to meet project execution requirements.

In summary, for Component A and with respect to the Lower Churchill Project Gateway Process (refer to Figure 2), much of the detailed engineering will be carried out in Phase 3.

2.2.4 Engineering Deliverables Summary

It is estimated that some 1000 engineering deliverables will be required to be prepared by Consultant for Component A engineering. The deliverables are anticipated to be comprised of some 800 engineering drawings and some 200 other deliverables which include design briefs, study reports, technical specification packages, functional specification packages, commissioning manuals, operation and maintenance manuals, environmental mitigation document packages, operability review reports and other technical documents. This number does not include detailed concrete reinforcing drawings and associated bar-bending schedules, concrete lift drawings, or isometric drawings of concrete lifts as it is assumed that these may be produced by construction contractors.

The Contracts Package Listing in Attachment A hereto, includes a compilation of the types of engineering deliverables associated with each Contract Package.

2.3 Capability

Consultant must demonstrate previous engineering on at least two (2) mega hydroelectric projects and have the experienced personnel to provide the services required for the Engineering Design and Project Support Agreement. If Consultant intends to supplement its capability with outside expertise, details are to be provided in its proposal for the Engineering Design and Project Support Agreement.

2.4 Design Liability / Responsibility

Design liability / responsibility for Component A detailed engineering performed by Consultant shall reside with Consultant.

Design liability / responsibility for the functional specifications produced by Consultant required for inclusion in selected Engineering, Procurement and Construction (EPC) type contracts wherein the successful EPC contractor(s) will perform detailed design as well as procurement and construction activities (e.g. Turbine and Generator supply), shall reside with Consultant.

Design liability / responsibility for detailed engineering performed by others as part of their contractual obligations under (EPC) type contracts will reside with the successful EPC contractor(s) and not with Consultant.

All engineering designs produced by Consultant shall be subject to review and comment by Company in accordance with Company's requirements. Such review and comment shall in no way result in design liability / responsibility by Company.

2.5 Best Practices

Consultant shall perform the Work to ensure that best overall value is achieved for Company. Consultant shall be proactive in identifying and implementing best practices with regard to the Work. Alternatively, Company reserves the right to introduce best practices to improve business practices specific to the Work. Where process or technology changes impact Consultant, Consultant shall be required to adopt the process changes or technology into its work practices as directed by Company.

Life Cycle Cost Analysis shall be employed where warranted. Document "Lower Churchill Project – Life Cycle Cost Design Philosophy for Equipment, Assets and Structures" Document Number MSD-PM-010 located in Attachment B, Company Provided Documents herein provides guidelines.

3.0 Component B – High Voltage Direct Current Transmission System Specialties

3.1 Description of Component B

Component B consists of the Submarine Cable and HVdc Converter Station systems associated with the high voltage direct current (HVdc) transmission system for the Lower Churchill Project. The Component B HVdc projects will be comprised of the following:

a) HVdc Converter Stations:

i.) Gull Island HVdc Converter Station
- 230 kV ac to ±450 kV dc Converter Station
- Operational as a rectifier
- 1600 MW continuous rating (800 MW per pole)
- Higher rating required for overload conditions
- Sea Electrode located in Lake Melville connected to the Converter Station

ii.) Soldiers Pond Converter Station
- ±450 kV dc to / from 230 kV ac Converter Station
- Operational as a rectifier and an inverter for bi-directional power flow
- 800 MW continuous rating (400 MW per pole)
- Higher rating required for overload conditions
- Sea Electrode located in Conception Bay connected to the Converter Station

b) HVdc Switchyards:

i.) Strait of Belle Isle Submarine Cable Terminations Switchyards
- One switchyard for each side of the Strait of Belle Isle Submarine cable crossing
- Associated switch works to manage the junction of multiple submarine cables and the overhead transmission line.

c) HVdc Submarine Cables:

i.) Strait of Belle Isle
- Submarine Cables capable of carrying 1600 MW continuous rating
- Higher rating required for overload conditions
- Corridors ranging from 28 km to 35 km in length
- Physical protection scheme required

Further information related to Component B is contained in “Lower Churchill Project – Basis of Design”, document number MSD-PM-006 located in Attachment B, Company Provided Documents herein.

d) Island Upgrades (potential scope)

i.) Some additions and modifications to Hydro’s existing Island transmission system may be required to successfully integrate the HVdc system, and to accept the power it transmits into the Island grid. Potential additions and modifications to existing infrastructure that may be required include the installation of transmission line compensation equipment, synchronous condensers, static var compensators, circuit breakers, disconnect switches and instrumentation. New transmission line and conductor replacement and mid-span structure installations on some existing transmission lines may also be required in order to increase the transmission capacity. (the technical aspects of these requirements will be included in

Component C) Potentially, a new terminal station may also be required in the Come by Chance area.

3.2 Scope of Work B

3.2.1 General

Scope of Work B under the Engineering Design and Project Support Agreement includes for the provision of engineering services, including engineering management and supervision of engineering-specific personnel for scope under the Engineering Design and Project Support Agreement, for Component B – High Voltage Direct Current Transmission System Specialties. With reference to Figure 2 - Lower Churchill Project Gateway Process, services will span from start of Phase 3 through Phase 4 and extending to start of operations.

Scope will include all levels of engineering necessary to meet the requirements dictated by the Project's contracts plan. In accordance with the contracts plan, it is anticipated that the contracts that will be put in place for provision of Component B facilities will be Engineering, Procurement and Construction (EPC) type contracts wherein the successful EPC contractor(s) will perform detailed design as well as procurement and construction activities. The scope of work under the Engineering Design and Project Support Agreement is to provide design briefs, functional specifications / technical documentation for inclusion in the discrete contract packages, for tendering by Company, to perform system engineering, as well as to provide analytical and technical support through to project completion. It is expected that significant engineering study work and associated analyses related to the Strait of Belle Isle marine crossing will be required to be performed by Consultant in order to provide the required information for tendering the EPC contracts. Scope will also include preparation of commissioning procedures, in conjunction with Company.

All engineering work shall be performed by experienced personnel, and Consultant shall use the necessary tools, either Company provided or agreed to be supplied by Consultant and endorsed by Company e.g. recognized and verified computer programs, to perform the engineering work in a professional manner and in accordance with accepted engineering practices.

A complete listing of the contract packages associated with Component B – High Voltage Direct Current Transmission System Specialties is included in Attachment A attached hereto. Contracting and Procurement activities will be undertaken by the project management team on Company paper. It is expected that Consultant engineering personnel will, as part of their engineering-specific duties, perform the role of package engineer in support of contracting activities.

As detailed in Section 5.0 of this Scope of Work and Technical Attachments, in addition to engineering-specific services the scope of the Engineering Design and Project Support Agreement includes for the provision of other personnel (Scope of Work D) who may be incorporated into Company's project management team as required by Company to bolster the project management team. It is expected that selected engineering personnel, upon completion of engineering-specific scopes associated with Component B, may be reassigned to other roles within the project management team. Such roles may not necessarily be limited to execution of physical Component B. In particular, it is expected that selected personnel will participate in site activities, including commissioning.

3.2.2 Earlier Work

Significant engineering work was carried out by Company in 2007 and 2008. A complete listing of the relevant documentation (as well as a selected listing of earlier study reports from 1997-2000 timeframe), is contained Section 6 – "Existing Technical Information" herein. It is noted that a

broader base of study reports dating back to the 1960's is available in-house. As a result of the earlier work, the overarching project definition is now in place as described in the "Lower Churchill Project – Basis of Design". Work under the Engineering Design and Project Support Agreement will build on, and not duplicate, the earlier work.

3.2.3 Engineering Definition Required for Gate 3

With reference to document MSD-PJ-006 "Cost Estimate Classification System" located in Attachment B, Company Provided Documents herein, it is a requirement that a Class 2 cost estimate be in place for the Lower Churchill Project during Phase 3. (Refer to Figure 2 - Lower Churchill Project Gateway Process). With respect to Component B EPC type contract packages, the scope definition for inclusion in the EPC bid packages will need to be to such a level as to provide assurance and certainty that the outturn costs for the contracts will meet the estimate expectations. To achieve the required level of scope definition, all necessary study work and associated analyses, particularly definition of physical data, marine installation requirements, and other technical information associated with the Strait of Belle Isle marine crossing will need to be comprehensive. Accordingly, further study work over and above that performed by Company to date may be required to be performed during Phase 3.

3.2.4 Engineering Deliverables Summary

It is estimated that some 200 engineering deliverables will be required to be prepared by Consultant for Component B engineering. While the main engineering deliverables will be the functional specifications for the contract packages, other deliverables include system study reports, design briefs, site selection studies, commissioning manuals, operation and maintenance manuals, environmental mitigation document packages, operability review reports, other technical documents as well as some 100 drawings (site mapping and other engineering drawings).

The Contracts Package Listing in Attachment A hereto, includes a compilation of the types of engineering deliverables associated with each Contract Package.

Note: The potential scope related to the Island Upgrades is not included in the above.

3.3 Capability

Consultant must demonstrate previous engineering on at least two (2) major High Voltage Direct Current (HVdc) bi-polar, bi-directional projects and have the experienced personnel to provide the services required for the Engineering Design and Project Support Agreement. In particular Consultant must demonstrate previous experience with submarine cable installations. If Consultant intends to supplement its capability with outside expertise, details are to be provided in its proposal for the Engineering Design and Project Support Agreement.

As noted in Section 1.1 of the Instructions to Proponents, there is a potential for the transmission facilities to connect the island of Newfoundland to Nova Scotia or New Brunswick via additional transmission lines, a sub-sea cable and associated converter station. Accordingly, the Consultant should also demonstrate experience in the design of multi-terminal HVdc schemes.

3.4 Design Liability / Responsibility

The design liability / responsibility for the functional specifications produced by Consultant which are required for inclusion in Component B EPC contracts, as well as design liability / responsibility for any Component B detailed engineering performed by Consultant shall reside with Consultant.

Design liability / responsibility for detailed engineering performed by others as part of their contractual obligations under EPC contracts will reside with the successful EPC contractor(s) and not with Consultant.

All engineering designs produced by Consultant shall be subject to review and comment by Company in accordance with Company's requirements. Such review and comment shall in no way result in design liability / responsibility by Company.

3.5 Best Practices

Consultant shall perform the Work to ensure that best overall value is achieved for Company. Consultant shall be proactive in identifying and implementing best practices with regard to the Work. Alternatively, Company reserves the right to introduce best practices to improve business practices specific to the Work. Where process or technology changes impact Consultant, Consultant shall be required to adopt the process changes or technology into its work practices as directed by Company.

Life Cycle Cost Analysis shall be employed where warranted. Document "Lower Churchill Project – Life Cycle Cost Design Philosophy for Equipment, Assets and Structures" Document Number MSD-PM-010 located in Attachment B, Company Provided Documents herein provides guidelines.

4.0 Component C – High Voltage Overhead Transmission Lines

4.1 Description of Component C

The High Voltage Overhead Transmission Lines projects required for the Lower Churchill Project comprise the following:

a) High Voltage Alternating Current (HVac) Overhead Transmission Lines:

i.) 735 kV ac Transmission Line from Gull Island to Churchill Falls
- Three phase, quad bundle conductor
- galvanized lattice steel V-guyed suspension and rigid angle towers
- 200 km long

ii.) 735 kV ac Transmission Line from Gull Island to the Quebec Border
- Three phase, quad bundle conductor
- galvanized lattice steel V-guyed suspension and rigid angle towers
- 170 km long

b) High Voltage Direct Current (HVdc) Overhead Transmission Lines:

i.) ±450 kV dc Transmission Line from Gull Island Converter Station to Soldiers Pond Converter Station (near St. John's, NL)
- bipole line, single conductor
- galvanized lattice steel guyed suspension and rigid angle towers
- 1100 km long

ii.) Export Transmission Line (To Be Advised)

Connections to HVdc transmission system specialties installations, as described in Component B herein, will be required.

Further information related to Component C is contained in "Lower Churchill Project – Basis of Design", document number MSD-PM-006 located in Attachment B, Company Provided Documents herein.

4.2 Scope of Work C

4.2.1 General

Scope of Work C under the Engineering Design and Project Support Agreement includes for the provision of complete engineering services, including engineering management and supervision of engineering-specific personnel for scope under the Engineering Design and Project Support Agreement, for Component C – High Voltage Overhead Transmission Lines. With reference to Figure 2 - Lower Churchill Project Gateway Process, services will span from start of Phase 3 through Phase 4 and extending to start of operations.

Scope will include all levels of engineering necessary to meet the requirements dictated by the Project's contracts plan, and includes preparation of design briefs, design reports, engineering drawings, documents, technical specifications and other technical content for inclusion in contract and procurement packages (both pre and post contract award), system engineering, as well as the provision of analytical and technical support through to project completion. Scope will also include preparation of commissioning procedures, in conjunction with Company.

All engineering work shall be performed by experienced personnel, and Consultant shall use the necessary tools, either Company provided or agreed to be supplied by Consultant and endorsed by Company e.g. recognized and verified computer programs, to perform the engineering work in a professional manner and in accordance with accepted engineering practices.

A complete listing of the contract packages associated with Component C – High Voltage Overhead Transmission Lines is included in Attachment A to this Scope of Work and Technical Attachments. Contracting and Procurement activities will be undertaken by the project management team on Company paper. It is expected that Consultant engineering personnel will, as part of their engineering-specific duties, perform the role of package engineer in support of contracting activities.

As detailed in Section 5.0 of this Scope of Work and Technical Attachments, in addition to engineering-specific services the scope of the Engineering Design and Project Support Agreement includes for the provision of other personnel (Scope of Work D) who may be incorporated into the Company led project management team as required by Company to bolster the project management team. It is expected that selected engineering personnel, upon completion of engineering-specific scopes associated with Component C, may be reassigned to other roles within the project management team. Such roles may not necessarily be limited to execution of physical Component C. In particular, it is expected that selected personnel will participate in site activities, including commissioning.

4.2.2 Earlier Work

Significant engineering work was carried out by Company in 2007 and 2008. A complete listing of the relevant documentation (as well as a selected listing of earlier study reports from 1997-2000 timeframe), is contained Section 6 – “Existing Technical Information” herein. It is noted that a broader base of study reports dating back to the 1960’s is available in-house. As a result of the earlier work, the overarching project definition is now in place as described in the “Lower Churchill Project – Basis of Design”. Work under the Engineering Design and Project Support Agreement will build on, and not duplicate, the earlier work.

4.2.3 Engineering Definition Required for Gate 3

With reference to document MSD-PJ-006 “Cost Estimate Classification System” located in located in this Appendix 3, Attachment B, Company Provided Documents herein, it is a requirement that a Class 2 cost estimate be in place for the Lower Churchill Project at Gate 3 (refer to Figure 2 - Lower Churchill Project Gateway Process). In order to realize the required cost estimate accuracy, it is anticipated that the level of project engineering and associated documentation for inclusion in the Component C contract packages at the contract bid stage during Phase 3 will, of necessity, need to be some 70% complete. The remaining engineering and associated documentation to achieve full project definition would be prepared by Consultant during the bid evaluation phase for the various contracts (during the remainder of Phase 3) continuing through Phase 4, and would be scheduled to meet project execution requirements.

In summary, for Component C and with respect to the Lower Churchill Project Gateway Process (refer to Figure 2), much of the detailed engineering will be carried out in Phase 3.

4.2.4 Engineering Deliverables Summary

It is estimated that some 2600 drawings will be required to be prepared by Consultant for Component C engineering. In addition to drawings, some 100 other deliverables consisting of design briefs, study reports, technical specification packages, commissioning manuals, operation and maintenance manuals, environmental mitigation document packages, operability review reports and other technical documents will be required.

The Contracts Package Listing in Attachment A hereto, includes a compilation of the types of engineering deliverables associated with each Contract Package.

4.3 Capability

Consultant must demonstrate previous engineering on at least two (2) major overhead transmission line projects and have the experienced personnel to provide the services required for the Engineering Design and Project Support Agreement. If Consultant intends to supplement its capability with outside expertise, details are to be provided in its proposal for the Engineering Design and Project Support Agreement.

4.4 Design Liability / Responsibility

Design responsibility / liability for Component C detailed engineering shall reside with Consultant.

All engineering designs produced by Consultant shall be subject to review and comment by Company in accordance with Company's requirements. Such review and comment shall in no way result in design liability / responsibility by Company.

4.5 Best Practices

Consultant shall perform the Work to ensure that best overall value is achieved for Company. Consultant shall be proactive in identifying and implementing best practices with regard to the Work. Alternatively, Company reserves the right to introduce best practices to improve business practices specific to the Work. Where process or technology changes impact Consultant, Consultant shall be required to adopt the process changes or technology into its work practices as directed by Company.

Life Cycle Cost Analysis shall be employed where warranted. Document "Lower Churchill Project – Life Cycle Cost Design Philosophy for Equipment, Assets and Structures" Document Number MSD-PM-010 located in Attachment B, Company Provided Documents herein provides guidelines.

5.0 Scope of Work D – Provision of Support Personnel

5.1 Description of Scope of Work D

Other personnel, to bolster the project management team both in the home office as well as at the various site offices, may be provided under the Engineering Design and Project Support Agreement. Support personnel may be required within the following functional areas:

- Construction Management (including but not limited to, Construction Managers, Construction Engineers, Constructability Engineers, Area Engineers, Mechanical and Electrical Installation Engineers, Concrete specialists, Construction Inspectors, Commissioning Engineers).
- Project Controls (consisting of estimating, cost control, planning and scheduling).
- Contracts and Procurement
- Benefits Monitoring
- Information Management
- Office Management
- Quality Management
- Safety Management
- Environmental Management
- Risk Management
- Labour Relations
- Human Resources
- Accounting

6.0 Existing Technical Information

Significant engineering work was carried out by Company in 2007 and 2008. The reports associated with this work are listed below. In addition to the 2007 / 2008 reports other technical documents, which provide background information to the Lower Churchill Project, are also listed below. The "Lower Churchill Project – Basis of Design", document number MSD-PM-006, which provides the overarching project definition that will be used as the primary reference to prepare engineering design criteria, design briefs, detailed design specifications and other technical documentation, has been developed by Company based on the results of the engineering work described in the noted reports.

NOTE: These documents are shown for reference purposes only to indicate the amount of information available however they are not provided at this time and will form a part of any subsequent Request for Proposal.

Engineering Studies comprising the 2007 / 2008 Engineering Program

Gull Island Hydroelectric Development

GI1010	Gull Island Site 2007 Investigation
GI1013	Gull Island Site 2008 Investigation
GI1015	Inspection and Structural Analysis Goose Bay Dock
GI1020	Study of Concrete Face Rockfill Dam (CFRD) Alternative
GI1030	Powerhouse Configuration
GI1050	Tailrace Channel Improvements Phase 1 – Preliminary Assessment
GI1060	Review of Structure Layouts and Interfaces
GI1061	Review of Structure Layouts and Interfaces – 5 x 450 MW
GI1070	2008 Ice Observation Program
GI1071	Ice Studies
GI1090	Review of Construction Camp and Other Infrastructure
GI1100	Review of Access Roads and Bridges
GI1110	Hydraulic Modeling of River
GI1130	River Operation during Construction & Impounding
GI1140	PMF and Construction Design Flood Study
GI1170	Seismicity Analysis
GI1180	Review of Site Access, Goose Bay and Off-Site Infrastructure
GI1190	Dam Break Study
GI1200	Gull Island Constructability Review
GI1230	Gull Island Site Information for Tenderers
GI1280	Gull Island – Diversion Facilities Numerical Modeling
GI1281	Gull Island – Power Intake and Spillway Facilities – Numerical Modeling
GI1282	Gull Island – Diversion Facilities Physical Modeling Technical Specifications
GI1290	Hydraulic Production Model
GI1300	Gull Island 2008 Report Plates (drawings)
GI1310	Workshop Report on Design and Operational Problems Resulting from Reservoir Preparation

Muskrat Falls Hydroelectric Development

MF1010	Review of Variants
MF1020	Muskrat Falls Site Investigations
MF1050	Spillway Design Review
MF1080	Review of Construction Camp and Other Infrastructure
MF1090	Review of Access Roads and T&W Bridge
MF1120	Potential Impact of Reservoir Flooding on TLH
MF1130	River Operation During Construction and Impounding

MF1250 Numerical Modeling of Muskrat Falls Structures
MF1260 Assessment of Existing Pumpwell System

HVac Transmission Lines

AC1020 Tower Type Selection, 735 kV
AC1030 Field Investigations and Construction Requirements - 735 kV Transmission Line Gull Island to Churchill Falls
AC1050 Tower Type Selection, 230 kV
AC1060 Field Investigations and Construction Requirements - 230 kV Transmission Line Muskrat Falls to Gull Island
AC1080 Load Control and Failure Containment
AC1090 Assess Cable De-icing
AC1100 Conductor Selection
AC1130 Corridor Selection & Construction Infrastructure - 735 kV Transmission Line - Gull Island to Quebec Border

HVdc Transmission Systems

DC1010 Voltage and Conductor Optimization
DC1020 HVdc System Integration Study
DC1050 Corridor Selection & Construction Infrastructure-Gull Island to Soldiers Pond
DC1051 Field Investigations - HVdc TL - Gull Island to Soldiers Pond
DC1060 Corridor Selection & Construction Infrastructure-Taylor's Brook to Cape Ray
DC1070 Preliminary Meteorological Load Review
DC1080 Tower Type Selection and Preliminary Optimization
DC1090 Site Investigation - Converter Stations Gull Island and Soldiers Pond
DC1110 Electrode Review - Gull Island and Soldiers Pond
DC1130 Submarine Cable - Strait of Belle Isle
DC1131 Submarine Cable Corridor Survey - Strait of Belle Isle
DC1132 Strait of Belle Isle - Existing Data Compilation
DC1133 Regional Multi-Beam Survey
DC1140 Submarine Cable - Cabot Strait
DC1141 Submarine Cable Corridor Survey - Cabot Strait
DC1142 Cabot Strait - Existing Data Compilation
DC1180 Fixed Link Tunnel Cost, Strait of Belle Isle
DC1200 HVdc Overland Transmission Re-estimate
DC1210 VSC Risk Assessment

Other Documents

- MSD-PJ-007 Project Change Management Procedure
- Development of EHV Transmission Lines in Labrador – EDM/RSW - 1999
- Gull Island Power Development SNC-Lavalin Power Division - October 1997
- Gull Island Hydro Electric Development – SNC-AGRA Joint Venture - December 2000
- Gull Island to Soldiers Pond Interconnection – Teshmont Consultant Inc. - June 1998
- Muskrat Falls Hydroelectric Development – SNC-AGRA - January 1999
- Reservoir Preparation Plan – Sikumiut Environmental Management Ltd. – February 2008
- Lower Churchill Hydroelectric Generation Project Baseline Report, Application of HADD Determination Methodology – AMEC – December 2007
- Newfoundland and Labrador Hydro Environmental and Guiding Principles

A selection of the listed documents is located in this Scope of Work and Technical Attachments, Attachment B, Company Provided Documents herein.

Note: Sections 7.0 through 14.0 inclusive:

The following sections 7.0 through to 14.0 inclusive of the Scope of Work are based on the Project Delivery Model of a Company led integrated project management team which forms a base option for Company. Company encourages Proponents, as a part of any alternative proposal, to challenge and improve upon each section individually or as a whole as part of an alternative Project Delivery Model, taking care in both cases to outline the changes relative to the base, including associated benefits and drawbacks.

7.0 Staffing Requirements for Project Management Team

7.1 Phase 3

For Phase 3 (refer to Figure 2 - Lower Churchill Project Gateway Process), it is anticipated that the project management team will consist of the following approximate numbers of personnel:

Total Project Management Team 275 personnel (peak)

The anticipated composition of the project management team is described as follows:

a) Owner's personnel and other personnel / consultants employed by Company: ~ 100-125 personnel
b) Personnel which may be provided under the Engineering Design and Project Support Agreement: ~ 150 – 175 personnel inclusive. Includes personnel required for engineering-specific services for all three (3) Scopes of Work A, B and C, as well as additional personnel who will be incorporated into the Company led project management team in other functional areas (Scope of Work D).

Engineering-specific personnel requirements (to be provided under the Engineering Design and Project Support Agreement), are estimated to be as follows:

- Engineering personnel for Scope of Work A ~ 60 - 80 personnel
- Engineering personnel for Scope of Work B ~ 20 - 30 personnel
- Engineering personnel for Scope of Work C ~ 40 - 50 personnel

7.2 Phase 4

For Phase 4, it is anticipated that the project management team will consist of the following approximate numbers of personnel:

Total Project Management Team ~ 300 - 350 personnel

The anticipated composition of the project management team is described as follows:

c) Owner's personnel and other personnel / consultants employed by Company: ~ 100 – 125 personnel
d) Personnel whom may be provided under the Engineering Design and Project Support Agreement: ~ 200 – 225 personnel inclusive.

It is recognized that through Phase 4, engineering-specific personnel requirements may reduce from that in place during Phase 3. As noted in Sections 2.0, 3.0 and 4.0 of this Scope of Work and Technical Attachments, it is expected that selected engineering personnel, upon completion of engineering-specific scopes, may be reassigned to other project execution support roles to bolster the Company led project management team both in the home office as well as at the various site offices.

8.0 Organization and Interfaces

8.1 General

Figure 3 provides a pictorial overview of the component streams for the Lower Churchill Project and depicts the Engineering Design and Project Support Agreement definition and interfaces within the project management team.

Figure 4 below provides an overview of the team model indicating the integration of the Consultant personnel within the project management team.

Figure 5 below provides the organization for the Leadership Team for the Lower Churchill Project and provides the reporting relationship for Components A, B and C engineering scope managers.

Note: Yellow colour denotes Consultant.

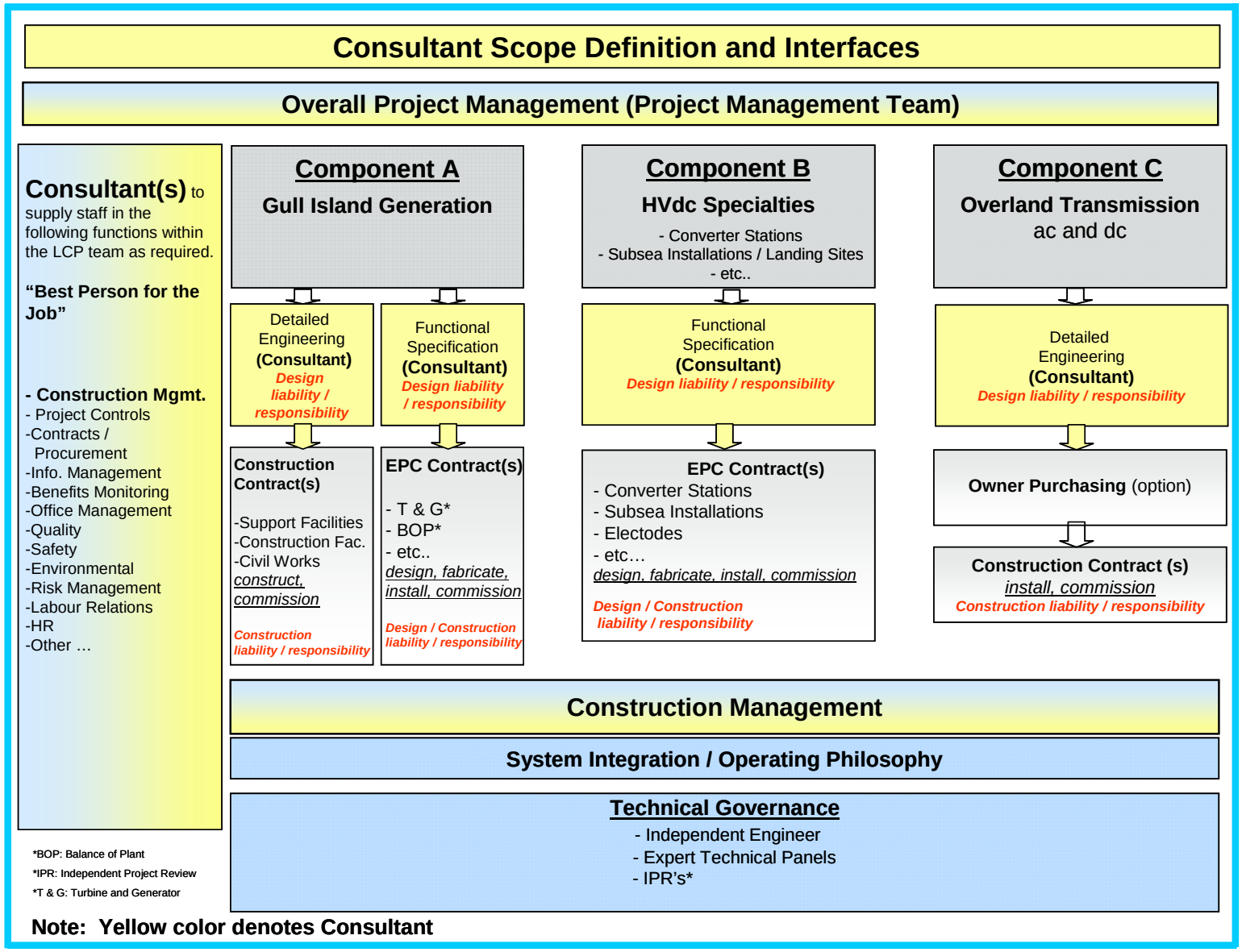

Figure 3 – Consultant Scope Definition and Interfaces

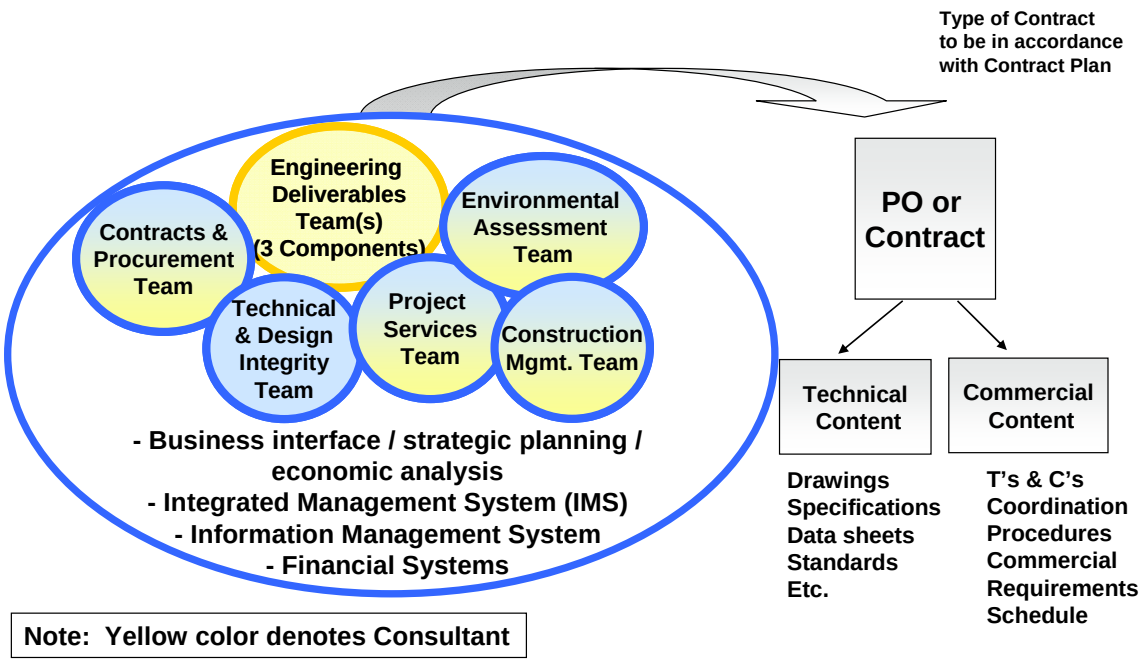

Figure 4 –Team Model with Consultant

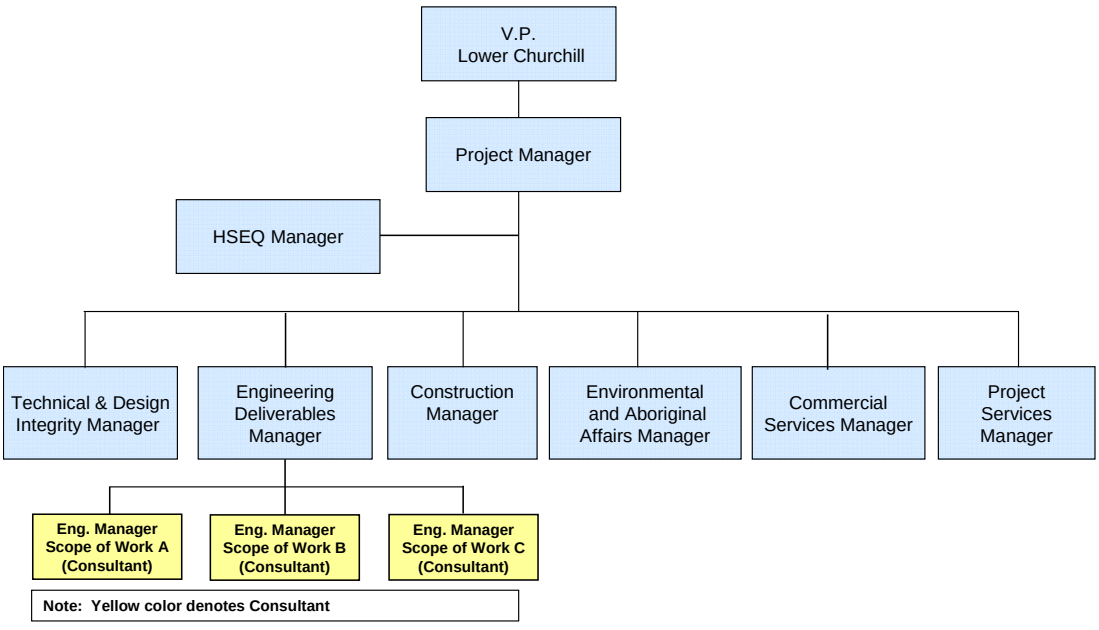

Figure 5 – Lower Churchill Project Leadership Organization with Consultant Reporting Relationship

8.2 Company's Technical and Design Integrity Oversight

8.2.1 General

Company will maintain oversight for technical and design integrity. As depicted in Figure 5, the project management team organization includes a dedicated Technical and Design Integrity group consisting of Company personnel assigned to perform the technical and design integrity role.

As part of its ongoing activities required to fulfill its responsibilities, this group will interface extensively with Consultant engineering team(s) for Components A, B and C to provide information and consultation support and to ensure Company's technical and design integrity requirements are being met. In addition, all design criteria, design briefs and other technical documentation produced by Consultant engineering team(s) for Components A, B and C will require review and comment in accordance with Company's requirements by Company's Technical and Design Integrity group. Such review and comment shall in no way result in design liability / responsibility by Company. All design codes and standards employed by Consultant engineering team(s) for Components A, B and C will require agreement of the Technical and Design Integrity group.

Consultant shall take all necessary measures to fully support Technical and Design Integrity group requirements and activities.

8.2.2 Design Basis Ownership

Among the main responsibilities of the Technical and Design Integrity group will be the ownership and maintenance of the "Lower Churchill Project - Basis of Design". Any required changes to the "Lower Churchill Project - Basis of Design" will be managed under the "Lower Churchill Project - Project Change Management Procedure" document number MSJ-PJ-007 located in Attachment B, Company Provided Documents herein.

8.2.3 Independent Engineers / Technical Panels / Lenders' Engineers

a) General

Company intends utilizing the services of Independent Engineers / Technical Panels to review the project elements, including engineering, throughout project execution. The Technical and Design Integrity group will organize and direct the activities of such groups.

There may also be a requirement for Company to accommodate a Lenders' Engineer, which may be employed throughout the execution of the Lower Churchill Project.

Consultant shall fully support these efforts.

b) Third Party Verification

From time to time Company may perform a design verification of certain elements of the design. This verification may be undertaken by Company and/or by a Third Party. The Technical and Design Integrity group will organize and direct the activities of such verification exercises.

Consultant engineering team(s) for Components A, B and C shall prepare design verification documentation as required by Company. The design verification documents may, as a minimum, include:

- requirements
- assumptions
- detailed calculations and analyses

- detailed drawings.

8.2.4 Company Junior Engineers

Company expects to have some junior Company individuals available to the project team, and that these individuals will be embedded into the Consultant's Organization to gain project engineering experience. These individuals will be under the Company payroll however we anticipated that their day to day direction and all responsibility for their work will be the responsibility of the Consultant. It is anticipated that the valuable experience they will gain as a result of this will be a long term benefit to the Company over the life of their career. Consultant is to confirm their agreement to comply with Company's request. Planning and scheduling of engineering deliverables by Consultant shall not take into account Company's Junior Engineers contribution.

8.3 Construction Management Group

As depicted in Figure 5, the project management team organization includes a dedicated Construction Management group consisting of project management team personnel assigned to the construction management role.

As part of its ongoing activities required to fulfill its responsibilities, this group will perform, from time to time, constructability reviews on the project design. The constructability reviews will include reviews for the incorporation of safety elements, overall constructability and incorporation of best practices.

In addition to constructability reviews, all engineering drawings which will be utilized for construction will require review and comment by Company's Construction Management group. Such review and comment shall in no way result in design liability / responsibility by Company.

Consultant shall take all necessary measures to fully support the Construction Management group requirements and activities.

8.4 Project Interface System

8.4.1 General

A dedicated Project Interface System will be established for the Project. The system will serve as a management tool to facilitate the management of interfaces throughout Project execution. The system will encompass all hard and soft interfaces identified throughout project development.

The interface system that will be utilized for the Lower Churchill Project is described in document "Lower Churchill Project – Interface Management System"; document number MSD-PM-013 located in Attachment B, Company Provided Documents herein.

Consultant will interface with Company and with third parties including, without limitation, Company's other contractors as required to perform the Work. All communications required among Company, Consultant, Company's other contractors, and other groups within the project management team with regard to interfaces shall be in accordance with Project interface system requirements. Consultant shall be responsible for preparation and management of all of its interface documentation, including, but not limited to interface registers, datasheets and drawings.

Consultant shall appoint an "Interface Co-ordinator" who shall be responsible for the overall co-ordination of Consultant's interfaces and who shall be the Consultant focal point for interface co-ordination between Consultant and all other parties.

Consultant shall take all necessary measures to fully support Project's interfacing requirements and activities.

8.4.2 System Engineering

Consultant for Components A, B and C shall execute system engineering for the Work. This will include but not be limited to:

- Verification of interfaces between Consultant, its Sub-Contractors, Company and Company's other contractors.
- Verification of Consultant's designs to function with other designs to form a complete system, free from unacceptable weaknesses.

Consultant shall clearly identify all internal interdependencies and all interdependencies between Company and Company's other contractors for the various parts of the Work.

Consultant for Components A, B and C shall perform system engineering to verify system integrity when changes to the design occur.

The Project Interface System shall be used as a tool to help manage system engineering.

Consultant shall take all necessary measures to fully support Project's system engineering requirements and activities.

9.0 Consultant Management, Administration and Project Control

9.1 General

Consultant shall provide all necessary personnel, services, facilities, systems, procedures and any other direct or indirect services, **if not provided by Company** and necessary for Consultant to manage, supervise, administer, execute and document the Work as required in support of the Work as defined in the Engineering Design and Project Support Agreement, including, but not limited to:

- Management and administration of the Work to ensure that the Work is performed in accordance with the contractual requirements for the Work, and to the satisfaction of Company and the appropriate regulatory, certification, and inspection authorities;
- Management and administration of the Work to ensure that the Work is performed in accordance with the Coordination Procedures under development and to be included in any subsequent Request for Proposal.
- Supervision, management and control of engineering for Consultant's scope;
- Participation in regular meetings with Company;
- Coordination of regular steering committee meetings with Company;
- Compliance with Company's administration and management procedures;
- Regular reporting of the status and progress of Work including the status and progress of subcontractors into Company system;
- Management of subcontractors as required to maintain the schedule and quality requirements of the Work.

9.2 Engineering Deliverables

9.2.1 Company's Engineering Deliverables Manager

As depicted in Figure 5, the project management team organization includes a dedicated Engineering Deliverables Manager.

As part of its ongoing activities required to fulfill its responsibilities, this Manager will have the following key accountabilities:

- Stewardship of overall Project engineering plan to meet project requirements;
- Approval of Consultant's deliverables listing;
- Approval of Consultant's engineering personnel;
- Approval of Consultant's mobilization and resourcing plan;
- Stewardship of the engineering deliverables production and schedule to meet contract package requirements;
- Management of the Project Interface System;
- Co-ordination of Company's Technical and Design Integrity group's and Construction Management group's interfacing with Consultant engineering team(s);
- Stewardship of engineering reporting;
- Stewardship of Management of Change for engineering scope and associated deliverables;
- Approval of engineering processes, procedures and tools;
- Coordination of engineering reviews;
- Stewardship of engineering quality.

Consultant for Components A, B and C will report to the Engineering Deliverables Manager with respect to the above accountabilities.

Further details of Engineering Deliverables Manager's accountabilities and associated Consultant's responsibilities are described in the following project procedures located in Attachment B, Company Provided Documents herein.

- "Lower Churchill Project - Engineering Resource Requirements and Approval Process", document number MSD-PM-011.
- "Lower Churchill Project – Progress and Performance Measurement Guidelines", document number MSD-PJ-005.
- "Lower Churchill Project – Quality Management Plan", document number MSD-QM-020.

Engineering Deliverables Manager activities shall in no way result in design liability / responsibility by Company.

Consultant shall take all necessary measures to fully support the Engineering Deliverables Manager's requirements and activities.

9.2.2 Consultant's Engineering Manager

As depicted in Figure 5, Consultant will provide a dedicated Engineering Manager for each of the Scopes of Work A, B and C as described in Sections 2.2, 3.2 and 4.2 herein respectively. The key activities, duties and responsibilities of Consultant's Engineering Manager for each of the Scopes of Work A, B and C are outlined as follows:

- Detailed definition of engineering scope to meet Company's Design Basis requirements and Contracts' plan;
- Management and control of execution of engineering and associated production of engineering deliverables for Scope of Work;
- Development of the engineering "Deliverables List" for Scope of Work;
- Production and maintenance of engineering schedules and budgets c/w resource requirements for Scope of Work for inclusion in overall engineering plan (in conjunction with LCP Project Services team);

- Staffing of engineering resources required to deliver Scope of Work;
- Assignment of Design responsibility within engineering team;
- Approval and implementation of engineering processes and procedures required for Scope of Work;
- Interfacing with Company's Technical and Design Integrity and Construction Management groups, and other consultants as required - implementation of inputs into engineering work per project procedures;
- Engineering reporting to meet project requirements;
- Utilization of and compliance with LCP Management of Change for Scope of Work;
- Coordination of internal engineering reviews – participation in Company led reviews;
- Execution of engineering quality for Scope of Work;
- Stewardship of PEG-NL requirements for Consultant's team.

9.3 Project Control Systems

The project management team will utilize a Project Control System which encompasses the following:

- Accounting
- Change Management
- Cost Estimating and Control
- Document Management
- Planning and Scheduling
- Progress Performance and Measurement
- Risk Management

Consultant shall, as part of operating within the project management team, provide data input into the Project Control System to meet Company's requirements. (e.g. timesheets information and document progress)

Consultant may be required to develop, in conjunction with Company, information formats and methods to meet project management team requirements.

Consultant shall comply with the needs and requirements of Company in this regard and as more particularly defined in the Coordination Procedures are not included as a part of the Expression of Interest and will form a part of any subsequent Request for Proposal.

10.0 Integrated Management System

To ensure that management responsibilities, processes and tools are documented, implemented, current and consistent across the Lower Churchill Project, the project management team, including Consultant, will operate within the Project's overarching Integrated Management System (IMS).

The IMS will consist of a framework of activities, resources, processes, procedures and tools to facilitate achievement of the accountabilities / responsibilities of the various functional groups comprising the project management team. The system will encompass all aspects of Project Management, Safety Management, Quality Management / Quality Control, and Environmental Management.

Tools/computer software to facilitate these services will be implemented.

Document MSD-PM-009, "LCP – Integrated Management System Strategy" located in Attachment B, Company Provided Documents herein provides further information related to the IMS.

With respect to engineering-specific scopes of work applicable to Components A, B and C, the IMS will include all engineering design and control procedures necessary to fulfill scope requirements.

Within the IMS, the Project may utilize systems, processes, procedures or tools identified by Consultant in its response to the Expression of Interest or any subsequent Request for Proposal.

11.0 Company Provided Resources

As outlined in Section 1.6 herein, Company's project office will initially house the entire project management team including personnel provided under the Engineering Design and Project Support Agreement. As the Project moves into the Execution Phase (Phase 4 - refer to Figure 2) Company will maintain the main project office and, in addition, Company will establish site offices which will house portions of the project management team as required to meet project requirements.

Company will provide all required furniture, equipment, telephone including local and long distance access, fax machines and computers, standard suite of office software, including access to email and including CADD software / system as required in its Company offices for all project management team personnel including Consultant.

12.0 Information Management

Information Management for the Lower Churchill Project includes all information created, generated or received as a result, or in support of, the activities required for planning, execution and project delivery. Included are the associated processes, resources and tools required to manage this information throughout its life cycle.

Project document "Lower Churchill Project - Information Management Strategy" document number MSD-IM-003 - located in Attachment B, Company Provided Documents herein provides the overall strategy and direction with respect to information management for the Lower Churchill Project.

13.0 Risk Management

The Lower Churchill Project has decided to implement a formal project risk management system to encourage the project team to look ahead, seek opportunities and avoid/mitigate problems before they arise. Successful project risk management promotes early awareness and risk monitoring that is vital to a project's success.

The Lower Churchill Project is dedicated to a proactive program of risk management to:

- Identify and analyze risks and opportunities which have potential safety, environmental, operational, cost, schedule or reputation implications on the Lower Churchill Project;
- Utilize knowledge of these risks and opportunities to facilitate more effective decision making by removing uncertainty and / or capitalizing on the opportunity;
- Timely and cost effectively respond to these risks and opportunities in order to control their potential adverse and / or beneficial impact on the Lower Churchill Project; and
- Allocate responsibility for the specific project risk to the party who can most efficiently and effectively manage the risk

Further details of Lower Churchill Project's Risk Management approach are described in the following project documents located in this Appendix 3, Attachment B, Company Provided Documents herein.

- "Lower Churchill Project – Project Risk Management Policy", document number MSD-RI-001.
    - "Lower Churchill Project – Project Execution Risk & Uncertainty Management Guidelines", document number MSD-RI-003.
- "Lower Churchill Project – Risk Management Philosophy", document number MSD-RI-004.

Consultant is responsible to ensure an understanding of the documentation requirements of Company, to participate in the Risk Management program and shall create and submit all required documentation as per Project requirements.

14.0 Document Management

Company's Information Management group within the project management team will provide overall document management services for the Lower Churchill Project.

Consultant shall meet requirements of Project document management processes including:

- "Lower Churchill Project – Management of Information Sets", document number MSD-IM-004.
- "Standard for the Production and Format of Engineering Drawings", document number MSD-IM-009.

These documents are located in Attachment B, Company Provided Documents herein.

Consultant is responsible to ensuring understanding of the documentation requirements of Company, and shall create and submit all required documentation as per Project requirements.

15.0 Project Coding

Coding of all information pertaining to the Lower Churchill Project shall be in accordance with document "Lower Churchill Project – Coding Standard", document number MSD-IM-008 located in Attachment B, Company Provided Documents herein.

16.0 Documentation for Operations

Consultant shall meet requirements of document "Documentation for Operations" document number MSD-IM-012 located in Attachment B, Company Provided Documents herein.

17.0 Canadian Regulations and Requirements

17.1 General

Consultant shall comply with all relevant statutory requirements and / or regulations of any governmental authorities having jurisdiction with respect to the Scope of Work.

Consultant shall prepare all documents, drawings, design briefs, analyses, manuals, etc. as required by any governmental authorities with respect to the Scope of Work.

Report "PM0010 Regulatory / Permitting List" located in Attachment B; Company Provided Documents herein highlights the consents, licenses, permits, notifications and approvals that may be required by the Lower Churchill Project, covering the project phases from pre-construction through to Operations.

17.2 Codes and Standards

Consultant shall execute engineering work in accordance with required design codes and standards, as agreed by Company's Technical and Design Integrity group.

18.0 Newfoundland and Labrador Requirements Related to the Practice of Engineering and Geoscience

The Practice of Engineering and Geoscience in Newfoundland and Labrador is subject to the requirements of the Engineering and Geoscience Act RSNL1990 Chapter E-12 and Regulations, O.C. 96-941.

Professional Engineers and Geoscientists – Newfoundland and Labrador (PEG-NL), is responsible for regulating the practice of Engineering and Geoscience.

Consultant shall carry its work in compliance with the requirements of the Act and Regulations, and also with the requirements of PEG-NL.

ATTACHMENTS

Attachment A – Contracts Package Listing and Engineering Deliverable Types by Package

Note: The Contract Packages listed herein are as a result of our preliminary analysis of the marketplace conditions. Company expects to modify and refine this Contract Package listing based upon further analysis of the contracting marketplace appetite and capabilities.

Attachment B – Company Provided Documents

Note: These documents are listed for reference purposes only and will be included in any subsequent Request for Proposal RFP.

ATTACHMENT A

CONTRACTS PACKAGE LISTING AND ENGINEERING DELIVERABLE TYPES BY PACKAGE

Note: The Contract Packages listed herein are as a result of our preliminary analysis of the marketplace conditions. Company expects to modify and refine this Contract Package listing based upon further analysis of the marketplace appetite and capabilities.

					20-Jan-09
		Lower Churchill Project - Contract Packages List & Engineering Deliverables by Package			
No.	**Component SOW**	**Contract Name**	**Description**	**Contract Strategy**	**Engineering Deliverable Types**
A-001	A	Accommodation Complex	Accommodation Complex, Including Buildings, 2000 person, Supply and Install.	EPC Lump Sum Contract & Unit Rates	Architectural layouts General Arrangement drawings Site Layout dwgs. Interface Drawings Site Location Plans and General Specifications (to be provided with all packages) Design Brief Functional Specification Commissioning / O&M Documentation
A-002	A	Accommodation Complex Site Services	Accommodation Complex Site Services including site preparation and underground infrastructure including water and sewer, sewage disposal lagoon, site grading and fencing.	Lump Sum Contract	Civil Drawings of Site Works Site Grading Drawings Water and Sewer Drawings Domestic Water Supply and Treatment Sewage Treatment Fire Water Supply and Distribution Technical Specifications Site Location Plans and General Specifications General Layout Drawings Environmental Permitting, Mitigation and Remediation Plans and Details Accomodations Complex - Power distribution from Distribution Center Accomodations Complex Outdoor Lighting Arrangements and Details Commissioning / O&M Documentation
A-003	A	Accommodation Complex, Removal of previous undergrounds	Accommodation Complex, Removal of previous undergrounds	Reimburseable	Technical Specifications Site Location Plans and General Specifications Existing Campsite Infrastructure Drawings - Site Conditions Environmental Permitting, Mitigation and Remediation Plans and Details
A-004	A	Permanent Personnel Facility	Permanent Personnel Facility (40 beds)	Contractor Lump Sum	Technical Specifications Site Location Plans and General Specifications Achitectural Drawings Civil Drawings Electrical Drawings Mechanical Drawings Water Supply and Treatment Sewage Disposal and Treatment Design Brief Life Cycle Cost Analysis Environmental Permitting, Mitigation and Remediation Plans and Details Commissioning / O&M Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
C-001	A	North and South Access Roads	North and South Access Roads to Accommodation, River and Construction Bridge.	Contractor Lump Sum	Technical Specifications Site Location Plans and General Specifications Detailed Site Mapping Access Roads Plan, Profile and Sections Culvert Locations and Details Design Brief Environmental Permitting, Mitigation and Remediation Plans and Details
C-002	A	Construction Bridge	Construction Bridge (Bridge supply only)	EPC Lump Sum PO	Design Brief Functional Specification Site Location Plans and General Specifications Bridge General Arrangement, Plan and Profile
C-003	A	Construction Bridge Civil Works	Construction Bridge Civil Works including abutments and piers (foundations) for the bridge and installation of the bridge. It also includes a barge to move equipment to south side of river to construct south side pier.	Contractor Lump Sum	Technical Specifications (Including construction Barge Spec.) Site Location Plans and General Specifications Bridge Approach Dwgs. Bridge Abutment and Piers Layouts and Details Environmental Permitting, Mitigation and Remediation Plans and Details Bridge Drawings River Bathymetry River Hydraulic Data
C-004	A	Diversion Tunnel	Diversion Tunnel including the following: Open cut excavation, tunnelling, Concrete Inlet Portal, Engineered and bulk rebar and flow compensation tunnel and sediment settling. It also includes the Site Clearing of any Borrow Pits and Disposal Areas.	Contractor with unit rate contract	Design Brief Technical Specifications Site Location Plans and General Specifications Excavation Drawings Detailed Site Mapping / Survey Control Geological Baseline Report / Site Information for Tenderers Tunnel Drawings Portal Drawings Gate Details (for info) River Hydraulic Data / River Ice Data Disposal Drawings Environmental Permitting, Mitigation and Remediation Plans and Details Flow Compensation Details General Arrangement Drawings Operability Review

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
C-005	A	Batch Plant	Large Batch Plant for Site	Contractor with unit rate contract	Functional Specifications Site Location Plans and General Specifications Environmental Permitting, Mitigation and Remediation Plans and Details Aggregate Sources Access Road Layouts Water Supply Source Concrete Production Schedule
C-006	A	Excavation excluding Dam	Excavation of Spillway, Plunge Pool, Intake, Approach Channel, Penstocks and Powerhouse Structure Including the Site Clearing of any Disposal Areas.	Contractor with unit rate contract	Design Briefs Technical Specifications Site Location Plans and General Specifications Access Road Layouts Excavation Plans and Details Foundation Preparation Dwgs. Environmental Permitting, Mitigation and Remediation Plans and Details Site Information for Tenderers General Arrangement Drawing River Hydraulic Data Disposal Drawings Detailed Site Mapping Geotechnical Baseline Report
C-007	A	Dam Works	Dam Works including survey work, clearing & grubbing, coffer dam(s), concrete cut-off wall, bulk excavation, dam construction, foundation preparation, Including the Site Clearing of any Borrow Pits and Disposal Areas.	Contractor with unit rate contract	Design Brief Technical Specifications Site Location Plans and General Specifications Access Road Layouts Excavation Plans and Details Environmental Permitting, Mitigation and Remediation Plans and Details Site Information for Tenderers General Arrangement Drawing River Hydraulic Data Disposal Drawings Detailed Site Mapping Cut-Off Wall Drawings Main Dam Plan Profile and Cross Sections Cofferdam Drawings Dewatering Plans and Details Dam Safety Instrumentation Concrete Face and Parapet Details Concrete Plyth Details Concrete Interface Dams Details Foundation Preparation and Grouting Drawings Downstream River Slope Protection Commissioning / O&M Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
C-008	A	Concrete Structures	Concrete Structures including intake, embedded parts and grounding, penstocks, spillway, powerhouse foundation.	Contractor with unit rate contract	Technical Specifications Site Location Plans and General Specifications Access Road Layouts Excavation Plans and Details Environmental Permitting, Mitigation and Remediation Plans and Details Site Information for Tenderers General Arrangement Drawing River Hydraulic Data Concrete Drawings / Embedments Foundation Preparation and Grouting Drawings Grounding Details Gate, Trashrack, and Stoplog Details (for info) Penstock Civil Drawings Powerhouse Architectural Drawings Structural Drawing Cladding Drawings WIndow and Door Schedules Electrical, Mechanical and HVAC Drawings Miscellaneous Steel Drawings Elevator Drawings Site Grading, Landscaping and Paving Details Warehousing / Storage Dwgs. (various types) Crane Details (for info) Equipment LIfe Cycle Cost Analysis Operability Reviews Commissioning / O&M Documentation
C-009	A	Fish Habitat Compensation Facility	Fish Habitat Compensation Facility - Gull Island Compensation for HADD - Harmful Alteration Disruption or Destruction (Fish Habitat)		Design Brief Technical Specifications Site Location Plans and General Specifications Detailed Site Mapping General Arrangement Drawings Environmental Permitting, Mitigation and Remediation Plans and Details HADD Detailed Drawings River Hydraulic Data O&M Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
E-001	A	Construction Power Line	Construction Power Line, substation 138KV down to 25 KV, a distribution network to Distribution Centres throughout the Construction site. Includes diesel generation for back up power.	Lump Sum Contract	Technical Specifications Site Location Plans and General Specifications Functional Specification for Diesel System Access Road Layouts Environmental Permitting, Mitigation and Remediation Plans and Details Layout for Substations and Distribution Systems Site Power SLD Site Lighting Dwgs. Distribution Detailed Drawings Transformer Dwgs.
E-002	B	Converter Stations @ Gull Island and Soldiers Pond	Converter Stations @ Gull Island and Soldiers Pond & building including electro-mechanical equipment, switchyard civil works, site preparation, fencing and services.	EPC lump sum	Power, Energy and System Studies Design Brief Functional Specifications Site Studies Site Location Plans and General Specifications Detailed Site Mapping Environmental Permitting, Mitigation and Remediation Plans and Details Access Road Layouts Switchyard Layouts (for info) Sites acSLD Electrode System Drawings (for info) Interface Documentation Life Cycle Cost Analysis Operability Reviews Commissioning / O&M Documentation
E-004	A	735 /230 KV Switchyard at Gull Island	735 /230 KV Switchyard at Gull Island including civil works, site preparation and services.	EPC lump sum	Design Brief Functional Specifications Site Location Plans and General Specifications Detailed Site Mapping Environmental Permitting, Mitigation and Remediation Plans and Details Access Road Layouts Switchyard Layouts / Grading / Drainage DC Station Service Site SLD Mechanical and Electrical Dwgs. HIgh Voltage Equipment / Grounding Dwgs. C&P Dwgs. Transformer Dwgs. Provide Fenced Level Yard Life Cycle Cost Analysis Operability Review Commissioning / O&M Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
E-005	B	Electrode Sites Preparation	Electrode design, supply, construction and Sites Preparation including underwater cable and transition compound.	EPC Lump Sum	Sites Selection Studies Design Briefs Functional Specifications Including data for tenderers Site Location Plans and General Specifications Detailed Site Mapping Environmental Permitting, Mitigation and Remediation Plans and Details Life Cycle Cost Analysis Operability Review Commissioning / O&M Documentation
E-006	B	SOBI Submarine Cable and Installation	SOBI Submarine Cable and Installation including landing sites, transition compound (2) @ Strait of Belle Isle, cable storage building, testing and mechanical completion	EPC lump sum	Design Brief Functional Specifications Site Location Plans and General Specifications Detailed Site Mapping / Route Engineering Additional Feasibility Study / Field Work Cable Design / Laying / Protection / Landing Point and Shore Approach Eng. Environmental Permitting, Mitigation and Remediation Plans and Details Access Road Layouts Termination Layouts Site SLD Life Cycle Cost Analysis Operability Review Commissioning / O&M Documentation
E-008	B	Communications System for HVDC system	Communications System for HVDC system, and remote control & monitoring of all facilities.	EPC lump sum	Design Brief (Operational Voice Network, Administrative Data Network, Operational Data Network, Optical Transport System, MIcrowave Transport System, Leased Services System, VHF Radio System, Teleprotection System) Functional Specifications (all systems) Study Work (all systems) Drawings (all systems) Life Cycle Cost Analysis (all systems) Commissioning / O&M Documentation (all systems) Site Location Plans and General Specifications Environmental Permitting, Mitigation and Remediation Plans and Details Communication Network Layout Transmission Network

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
E-009	C	Transmission Line Construction and Installation	Transmission Line Construction and Installation Contract, including line clearing, access roads, foundations, anchors, tower erection, installation of hardware, string transmission and electrode lines, line camps, including communications for Transmission Line Construction.	Contractor with unit rate contract, potentially 6 Contracts.	Design Brief Technical Specifications (Construction & Installation, LIDAR Surveying, Staking, Geological Investigations & Photo Interpretation) Site Location Plans and General Specifications Access Roads, Bridges, Culverts, Clearing Dwgs. Camps / Storage Yards Dwgs. Environmental Permitting, Mitigation and Remediation Plans and Details Structures List / Sag Charts / Plans & Profiles / Line Routing Dwgs. Tower Drawings / Foundation / Hardware Dwgs. Grounding Dwgs. Life Cycle Cost Analysis Operability Review List of Free Issue Materials/ Logistics Plan List of Contractor Supplied Materials Commissioning / O&M Documentation
E-010	C	Conductor for AC / DC Overhead Lines	Conductor for AC / DC overhead lines and associated fittings, Purchase	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials
E-011	C	AC and DC Insulators	AC and DC Insulator's, Purchase	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials
E-012	C	Tower Steel	Tower Steel including detailing, prototype testing, foundations, anchors and bolting, Purchase	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials Tower Family Drawings Logistics Document
E-013	C	Tower Hardware	Tower Hardware	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials Logistics Document

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
E-014	C	Optical Ground Wire (OPGW) Conductors	Optical Ground Wire (OPGW) Purchase	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials Logistics Document
E-015	C	Overhead Ground Wire (OHGW) Conductor	Overhead Ground Wire (OHGW) including guy wires, Purchase	Lump Sum PO	Technical Specifications Delivery Schedule Bill of Materials Logistics Document
E-016	A	Modifications to existing switchyard at Churchill Falls	Modifications to existing switchyard at Churchill Falls and associated requirements.	Contractor with unit rate contract	Design Brief Technical Specifications Site Location Plans (CF) and General Specifications Detailed Site Mapping Environmental Permitting, Mitigation and Remediation Plans and Details Existing Switchyard Layouts and Extension Layout SLD for Existing and Extension Provide Fenced Level Yard Interface Drawings Existing Switchyard Info. Existing Relay Building - Layout of new equipment / Potential Extension to Bldg. (Civil, mech., elect.) Control Room Mods (CF) Plan (Civil, electrical and mechanical) Life Cycle Cost Analysis Operability Review Commissioning / O&M Documentation
E-017	C	Transmission Line Mechanical Completion	Transmission Line Mechanical Completion	Contractor with unit rates?	Site Location Map Book Technical Specifications Tower Drawings Transmission Line Routing Plan and Profile Sag Charts
G-001	N/A	Project Office, St. John's, NL	Project Office, St. John's, NL	Unit Rates and Lump Sum	General Requirements

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
G-002	N/A	Engineering Design and Project Support Contract	Engineering Design and Project Support Contract	Reimburseable	BOD and Technical Reports
G-003	A	Catering	Catering	Contractor with unit rate contract	General Requirements Camp Layout / Buildings Info.
G-004	A	Janitorial	Janitorial	Contractor with unit rate contract	General Requirements Camp Layout / Buildings Info.
G-005	A	Security	Security	Contractor Lump Sum	General Requirements Camp Layout / Buildings Info.
G-006	A	Medical Services	Medical Services	Contractor Lump Sum	General Requirements Camp Layout / Buildings Info.
G-007	A	Site Ground Transportation	Transportation, at Site, Site to HVGB and Return and HVGB Airport to other destinations.	Contractor with unit rate contract	General Requirements Camp Layout / Buildings Info.
G-008	A	Accommodation Complex Maintenance	Accommodation complex maintenance	Contractor with unit rate contract	General Requirements Camp Layout / Buildings Info.
G-009	A	Snow Removal and Road Maintenance	Snow Removal and Road Maintenance	Contractor with unit rate contract	Technical Specifications / General Requirements Site Location Plans and General Specifications (Meteorological Data) Site Layout / Access Roads Layout
G-010	A	Fuel Supply and Dispensing	Fuel supply and dispensing	Contractor with unit rate contract	Technical Specifications Site Location Plans and General Specifications Environmental Permitting, Mitigation and Remediation Plans and Details Civil, Mechanical and Electrical Dwgs.
G-011	A	Remote Sewage Disposal	Remote Sewage Disposal, washcars / portable toilets, dryhouses, including garbage collection.	Contractor with unit rate contract	General Requirements Technical Specifications Site Location Plans and General Specifications

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
G-012	A	Potable Water Delivery	Remote Sites, Potable Water Delivery, to washcars and contractors.	Contractor with unit rate contract	General Requirements Technical Specifications Site Location Plans and General Specifications
G-013	A	Electrical Distribution Contractor	Electrical Distribution Contractor Multiple, Distribution of Site power to support Construction activities. (Call-Off's)	Contractor with unit rate contract	General Requirements Technical Specifications Site Location Plans and General Specifications Load Requirements (required by designer) Site Layout (location of sub-stations) Distribution SLD / Layout and Details Detailed Site Mapping
G-014	A	Explosives Supply and Warehouse	Explosives Supply and Warehouse includes security, issuance and permitting.	Contractor with unit rate contract	Technical Specifications / General Requirements Site Location Plans and General Specifications Bill of Materials (including quantities) Environmental Permitting, Mitigation and Remediation Plans and Details
G-015	A	Reservoir Clearing	Reservoir Clearing including surveying & clearing, harvesting, collection of materials and disposal of waste, including debris and slash management.	Contractor with unit rate contract or lump sum per acre	Design Brief Functional Specifications Location Plans and General Specifications Access Points to Reservoir River Hydraulic Data Environmental Permitting, Mitigation and Remediation Plans and Details Reservoir Mapping
G-016	A	Marketing of merchantable timber. (**HOLD)**	Marketing of merchantable timber from reservoir / site clearing	LCP responsibility not tied to financing	Technical Specifications Site Location Plans and General Specifications **(HOLD)**
G-017	A	Barge Contract	Barge Contract to move Equipment to South Side to Commence Diversion Tunnel and Excavation of Spillway, Plunge Pool, Intake, Approach Channel, Penstocks and Powerhouse Structure Including the Site Clearing of any Disposal Areas, including any shoreline wharves.	Contractor Lump Sum or day rate with mob / demob	Functional Specifications Site Location Plans and General Specifications River Hydraulic Data Detailed Site Mapping River Bathymetry Access Road Layouts Environmental Permitting, Mitigation and Remediation Plans and Details

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
G-018	A	Gull Island Site Communications	Gull Island Site Communications, including Cell Towers (2), Satellite Phone, Telephone for Accommodation complex and Contractors, Cable or Satellite TV for Accommodation complex, and Computer Data Lines.	Contractor Lump Sum	Functional Specifications and General Requirements Site Location Plans Topographic Mapping Site and Camp Layout
G-019	A	Happy Valley / Goose Bay Project Office	Happy Valley / Goose Bay Project Office, including Communications, Public Relations and Administration	Contractor with unit rate contract	General Requirements
G-020	A	Happy Valley Goose Bay Hotels	Happy Valley Goose Bay Hotels (Mob / Demob) or Peak periods, including catering and Box Lunches.	Nightly rate	General Requirements
G-021	A	Freight Forwarding and Logistics	Freight Forwarding and Logistics Contract, including Custom Duties Consultation.	Contractor with unit rate contract	General Requirements
M-001	A	Turbine & Generators	Turbine & Generators, including exciters, and govenors. (TBD)	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Powerhouse General Layouts / Cranage Interface Drawings Site Layout Access and Transportation Details
M-002	A	Balance of Plant	Balance of Plant (TBD) including powerhouse E&M services, transformers(15/230kv), switchyard structure, electro mechanical equipment, including diesel generator back-up unit and control systems. NEED TO REVIEW STRATEGY	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Powerhouse Layouts Structure Layouts Interface Drawings Site Layout Access and Transportation Details Grounding Details Structural Drawings SLD Switchyard Layout Electrical, Mechanical and HVAC Drawings Equipment General Arrangement Drawings Life Cycle Cost Analyses Commissioning / O&M Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
M-003	A	Spillway Gates	Spillway Gates (8) including Stop Logs (1 set) complete with storage and retrieval system, hoists and heating system and Guides / Concrete embeddments.	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Concrete Details of the Structure General Arrangement of the Structure Hoist Enclosure Details Interface Drawings Equipment Arrangement Dwgs. Life Cycle Cost Analysis Commissioning D
M-004	A	Diversion Tunnel Gates	Diversion Tunnel Gates (4 sets) and Flow Compensation Gate (1) including gate hoists and Downstream Stop Logs (2 sets) and Guides / Concrete embeddments.	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Concrete Details of the Structure General Arrangement of the Structure Interface Drawings Equipment Arrangement Dwgs. Commissioning Documentation
M-005	A	Intake Gates	Intake Gates (5 sets) including Bulkhead Gates (1 set), Trashracks (5 sets), hoists and heating system and Guides / Concrete embeddments and trash removal system.	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Concrete Details of the Structure General Arrangement of the Structure Hoist Enclosure Details Interface Drawings Equipment Arrangement Dwgs. Life Cycle Cost Analysis Commissioning Documentation
M-006	A	Draft Tube Gates	Draft Tube Gates (2 sets) complete with storage and retrieval system and Guides / Concrete embeddments.	EPC lump sum	Functional Specifications Site Location Plans and General Specifications Concrete Details of the Structure General Arrangement of the Structure Interface Drawings Equipment Arrangement Dwgs. Commissioning Documentation
M-007	A	Powerhouse Crane	Powerhouse Crane Supply and Install	EPC lump sum	Functional Specification Equipment Arrangement Dwgs. Commissioning Documentation

No.	Component SOW	Contract Name	Description	Contract Strategy	Engineering Deliverable Types
M-008	A	Powerhouse Building	Powerhouse Building including the supply and installation including Structural Steel, Cladding, HVAC, and Electro-Mechanical Equipment, associated with the Powerhouse Building.	Lumps Sum PO	Technical Specifications Civil and architectural dwgs. Mechanical and electrical dwgs.
M-009	A	Elevator	Elevator, Supply and Install	EPC lump sum	Functional Specification Equipment Arrangement Dwgs. Commissioning Documentation
M-010	A	Hoist Enclosures for Gates and Hoists	Hoist Enclosures for Gates and Hoists	Lump Sum PO	Technical Specification Enclosures Dwgs.

ATTACHMENT B

COMPANY PROVIDED DOCUMENTS

Note: These documents are listed for reference purposes only and will be included in any subsequent Request for Proposal RFP.

Eng. Design and Project Support Agreement

Attachment B: Company Provided Documents List: Draft 14 January 2009

NUMBER	REV	TITLE	At RFP Issue	By Award
GEN-EN-001		Lower Churchill Project - Synopsis of Engineering Studies	X	
MSD-EN-001		Lower Churchill Project - Operations and Maintenance Philosophy for Design		X
MSD-IM-003		Lower Churchill Project - Information Management Strategy	X	
MSD-IM-004		Lower Churchill Project – Management of Information Sets		X
MSD-IM-008		Lower Churchill Project - Coding Standard		X
MSD-IM-009		Lower Churchill Project - Standard for the Production and Format of Engineering Drawings		X
MSD-IM-012		Lower Churchill Project - Documentation For Operations (DFO)		X
MSD-PJ-004		Lower Churchill Project - Planning and Scheduling Philosophy	X	
MSD-PJ-005		Lower Churchill Project - Progress and Performance Measurement Guidelines		X
MSD-PJ-006		Cost Estimate Classification System		X
MSD-PJ-007		Lower Churchill Project - Project Change Management Procedure	X	
MSD-PJ-010		Lower Churchill Project - Project Work Breakdown Structure	X	
MSD-PJ-013		Lower Churchill Project - Time Writing and Recording Process		X

Eng. Design and Project Support Agreement

Attachment B: Company Provided Documents List: Draft 14 January 2009

NUMBER	REV	TITLE	At RFP Issue	By Award
MSD-PM-006		Lower Churchill Project - Basis of Design	X	
MSD-PM-009		LCP - Integrated Management System Strategy	X	
MSD-PM-010		Lower Churchill Project - Life Cycle Cost Design Philosophy for Equipment, Assets and Structures		X
MSD-PM-011		Lower Churchill Project - Engineering Resource Requirements and Approval Process	X	
MSD-PM-013		Lower Churchill Project – Interface Management System		X
MSD-QM-020		Lower Churchill Project - Quality Management Plan	X	
MSD-RI-001		Lower Churchill Project - Project Risk Management Philopsophy	X	
MSD-RI-003		Lower Churchill Project - Project Execution Risk & Uncertainty Management Guidelines	X	
MSD-RI-004		Lower Churchill Project - Risk Management Philosophy	X	
Rpt. PM0010		Regulatory / Permitting List		X
Selection of Technical Reports to be Added			X	

CORPORATE ORGANIZATION, DATA AND FINANCIAL STATEMENT

TABLE OF CONTENTS

1.0 Introduction 3
1.1 Qualifications of Businesses 3
2.0 Corporate Organization 3
2.1 Details of Company (Proponent) (Owner Companies) or (Ultimate Parent Companies) 4
2.2 Voting Rights: 5
2.3 Controlling Interest: 5
2.4 Organization 5
2.5 Finance / Financial Statement 6
3.0 Experience 9
4.0 Sub-Contracted Work 9
5.0 Offices and Other Facilities 9
6.0 Human Resources 10
7.0 Newfoundland and Labrador Benefits 10
8.0 Contractor / Supplier Authority 11

Attachments:

- **Bank Clearance Letter (Sample)**

1.0 Introduction

Company places the highest priority in having a safe and healthy workplace for employees and Contractors' / Suppliers employees and conducting all our activities in an environmentally responsible manner. Company's commitment is to meet or exceed the standards expected of an industry leader by the community and Government, and thereby achieve an accident free and healthy workplace.

To accomplish this, the Company shall only utilize Contractors / Suppliers who meet or exceed our Commercial, Technical, Health, Safety, Environment and Quality Standards. All potential Contractors / Suppliers are required to provide the information specified in this Questionnaire, which is designed to assist the Company in deciding which Contractors / Suppliers to consider for the provision of works, goods, and services associated with the LCP.

The information provided is strictly confidential and solely for the use of the Company.

Company is committed to ensuring fairness in our Contractor / Supplier selection process. Evaluation will be based on Consultant meeting our expectations for the goods and/or services to be supplied.

1.1 Qualifications of Businesses

In addition to the above all parties interested in providing works, goods or services to the Project shall only be considered if they demonstrate the following:

a) where the previous experience in performing contracts of a similar nature, including quality of work and adherence to schedule and budget;

b) continuity of supply;

c) timely performance;

d) ability to provide the required goods or services, including the ability to supply and deliver the goods or services and provide any required follow-up services;

e) any previous experience working with aboriginal people or businesses;

f) qualifications, experience and capabilities of personnel;

g) management structure;

h) operational integration of the business partners (if applicable);

i) financial capacity; and credit worthiness

j) insurance and bonding;

k) health, safety, and environment management systems; and quality management systems.

2.0 Corporate Organization

Proponent shall supply all pertinent information regarding its company as requested in this Questionnaire.

If Proponent wishes to propose a Joint Venture or Partnership it shall clearly state the nature of any Joint Venture or Partnership and any specific arrangements made for the Engineering Design and Project Support Agreement described in this EOI. Information shall also include, without limitation, a statement of the share equity of each of the participants in the Joint Venture or Partnership; the share and nature of work to be carried out by each of the participants; the arrangements for the transfer of technology from foreign Joint Venture or Partnership participants to Canadian participants; and the longer term nature of the Joint Venture or Partnership arrangements. The Proponent shall identify the roles and responsibilities of each party as it relates to any previous experience they have had with any of the proposed Joint Venture or partners in any proposed Partnership.

2.1 Details of Company (Proponent) (Owner Companies) or (Ultimate Parent Companies)

Where the Proponent is submitting an Expression of Interest as a Joint Venture or Partnership the following instructions apply.

2.1.1 By Proponent: If Proponent is an incorporated company, this questionnaire is to be completed for the incorporated Proponent. If Proponent is a Joint Venture or Partnership, then the questionnaire is to be completed for each member company of the Joint Venture or Partnership and Proponent shall separately declare the interest of each member company in said Joint Venture or Partnership.

2.1.2 By Owner Companies: In the instance where Proponent is controlled by a number of owner companies, the following information should be provided for each owner company.

Proponent shall also provide the following information solely as it relates to the proposing entity:

i) Proponent's Name: _____

ii) Proponent's representative for the purpose of the Agreement:

Name: _____ Telephone: _____

Designation: _____

Business Address: _____

_____

_____

iii) Head office address: _____

_____

Telephone: _____ Fax: _____

Email Address: _____

iv) Newfoundland and Labrador Office _____
(If different than above)

_____

_____

Telephone: _____ Fax: _____

v) Registered Office: _____
(If different than above)

_____

_____

Telephone: _____ Fax: _____

2.2 Voting Rights:

CUMULATIVE VOTING RIGHTS (%)	MINIMUM NO. OF SHAREHOLDERS REQUIRED TO ACHIEVE STATED CUMULATIVE VOTING RIGHTS	ACTUAL %

Number of Shares Issued (with voting rights): _____

A copy of the register of members may be provided as an alternative to completing the above table.

2.3 Controlling Interest:

a. Where there are more than 100 shareholders, a list of shareholder(s) possessing 3% or more of the voting rights may be submitted and the information required in b. below not completed.

b. Name of any person(s) or company(s) having controlling interest:

c. State names and country of origin of any debt or equity holdings convertible into common shares and conditions applicable to such debt or equity holdings.

To the best of our knowledge and belief, no person or company not disclosed above, has a controlling interest in the company named in item 2.1.1 above.

2.4 Organization

2.4.1 Indicate your type of business organization (Ltd., Private, wholly owned subsidiary, etc.):

_____

If you are intending to respond as a Joint Venture / Partnership please enclose a copy of your Joint Venture / Partnership agreement(s) and details of all joint venture / partnership agreements. Proponent shall submit with its Expression of Interest Response a "Notarized" copy of the Joint Venture or Partnership Agreement it has established for the performance of the Work and a Corporate organization chart showing all members of the Joint Venture / Partnership, inclusive of each members corporate structure, to enable Company to fully understand Proponent's overall organization, affiliated companies, ownership and the like.

Note: Company shall have the right to disclose any information contained herein to governmental authorities, (if required).

2.4.2 List names of Company Officers and their levels of authority relative to Company commitments as stated below:

Chairman: _____

Chief Financial Officer: _____

President: _____

Vice President: _____

Company Secretary: _____

Managing Director: _____

Chief Accountant: _____

2.4.3 Place of Registration: _____Date: _____

Registration No.: _____

_____

2.4.4 Names of Parent, Associate and Subsidiary Companies:

_____

_____

_____

2.4.5 Date business founded:

_____

Under present management since: _____

2.4.6 Please attach a company organization chart and a typical project organization

2.5 Finance / Financial Statement

Proponent shall submit with its Expression of Interest Response, letters to its banks (and those of its Joint Venture or Partnership participants and their respective Parent Companies) authorizing bankers to release credit information (i.e. current account balance, line of credit utilization, and any failure to comply with banking covenants over the last three (3) years etc.) directly to Company upon Company's request and complete the following information. See sample Bank Clearance Letter at the end of this Attachment.

Define the Currency in which you normally conduct your business:

_____

2.5.1 Current Gross Annual Revenue: _____

Debt/Asset Ratio: _____

2.5.2 Indicate range of costs within which you are prepared to bid:

Minimum _____Maximum _____

2.5.3 Indicate your reference on banking services:

Name: _____

Address: _____

_____

Contact: _____

2.5.4 Is Certified Financial or Income Statement available? Yes ☐ No ☐

(If yes, please attach latest copy and insert our name on your annual distribution list)

2.5.5 Name of Public Audit firm who prepared audited statements (please provide contact name and address)

_____

2.5.6 Performance Bonds

Can you supply Performance/Payment bonds? Yes ☐ No ☐

- Maximum amount?_____
- Origin _____

2.5.7 Is your parent company, if any, willing to provide a letter of guarantee of financial responsibility for any work awarded to your company? Yes ☐ No ☐

2.5.8 Please provide Credit References for Contracts of a similar nature and value: ___

_____

_____

2.5.9 Please provide Customers References to support your timely execution of the work.

_____

_____

2.5.10 Proponent shall provide:

a) Copies of its audited annual reports and accounts for the last three (3) fiscal years. In addition, Proponent shall provide interim un-audited financial statements/information, if the last fiscal year ended more than six (6) months prior to the submittal date of this Expression of Interest Response.

The information required in a) above, shall be provided with respect to Proponent or, if Proponent is a joint venture or partnership, Proponent's joint venture participants or partners and the respective parent companies of all of the foregoing entities.

2.5.11 Proponent shall provide details of litigation, criminal or Quasi Criminal proceedings and contingent liabilities.

a. Statement of outstanding litigation (greater than $10,000):

Name of Opponent	Subject	Amount of Claim	Jurisdiction of Action

b. Statement of litigation during previous 5 years (greater than $10,000):

Name of Opponent	Subject	Amount of Claim	Amount of Settlement

c. Statement of outstanding criminal or Quasi Criminal proceedings:

d. Statement of convictions against Proponent during previous 10 years:

e. List of contingent liabilities (greater than $10,000) included in the latest audited annual report and interim un-audited annual accounts:

2.5.12 Proponent shall provide the current contract value for ongoing commitments for each quarter for 2009 to 2011 inclusive. Individual contracts in excess of $10 million should be separately identified.

2.5.13 Proponent shall state the instances and dates, if any, when Proponent has been in receivership, bankruptcy, or failure to comply with banking covenants over the last three (3) years or has been insolvent such that it was unable to pay its debts as they became due.

3.0 Experience

3.1 Please identify the scope of work, approximate value or person-hour content, the date of award and name of client for each of the following categories:

a. **List of Hydroelectric and Transmission Projects:**

b. **Other Civil Work:**

c. **Current Projects (that depict relevant experience):**

4.0 Sub-Contracted Work

Please advise what types of work you typically would sub-contract. List major components only:

Type of Work or Service	Potential Sub-Contractor and Location	Location or Country of Origin

5.0 Offices and Other Facilities

(*Please provide answers to this section as a separate attachment)*

5.1 Do you have overseas offices and facilities that you intend to engage as a result of this Expression of Interest? And if so what Services or Work do you expect to execute from

these offices or facilities?

5.2 Please state company capabilities regarding creation, receiving, working with and delivery of electronic data and documentation.

5.3 Workload

Please provide a summary of work to be performed in parallel to the Lower Churchill Project. Please include:

- Contract title and client
- Scope of work
- Form of contract i.e. E, C, EPC, EPIC etc.
- Histogram of person-hour expenditure per contract and in total, inclusive of all subcontracted person-hours with an indication of maximum person-hour capacity by facility.

6.0 Human Resources

Please indicate the number of Management, Engineering and Supervision employees you have and their categories.

_____
_____
_____
_____

Please indicate the ratio of full time to contracted employees.

_____
_____
_____
_____

7.0 Newfoundland and Labrador Benefits

7.1 Benefits Introduction

Proponent shall outline its policies regarding the following procedures and initiatives:

- To provide qualified Newfoundland and Labrador manufacturers, consultants, contractors and service companies with full and fair opportunity to bid on a competitive basis in the supply of goods and services, where those goods and services are competitive in terms of fair market price, quality and delivery.

- To promote the development of suppliers, including any training.

- To promote technology transfer to the Newfoundland and Labrador participants within the Proponent's company, Joint Venture or Partnership. The response should address but not be limited to the following:

  7.1.1 Description of the intended technology transfer and the strategy and methods which will be employed to achieve this transfer;

7.1.2 The nature of the arrangements among the participants in the Expression of Interest Response, including the respective shares of equity and the long term intentions for their business entity;

7.1.3 The share and nature of the work to be carried out by each of the participants; and

7.1.4 The arrangements for the transfer of technology from non-Canadian participants to Canadian led, owned or controlled participants, including plans for the development of senior project management capability in the Canadian participants.

7.1.5 To perform all or part of the work in Newfoundland and Labrador or other Canadian sites.

7.1.6 Research and development conducted, supported or planned by Proponent.

7.1.7 All aboriginal groups will be encouraged to actively participate in the Project. An Impacts and Benefits Agreement (IBA) is being negotiated with the Innu Nation, which once concluded, will define how the Labrador Innu will participate in and benefit from the Project. This will be provided to Proponents in any subsequent RFP.

8.0 Contractor / Supplier Authority

THUS DONE AND SIGNED on this _____day of _____, 20_____
For and on behalf of _____

Signature: _____
Name (Print) _____
Date: _____

When completed, please return this questionnaire to:

Clifford C. Rowe, Contracts Coordinator
Nalcor Energy - Lower Churchill Project
Hydro Place, 500 Columbus Drive
P.O. Box 12800, St. John's, NL
Canada, A1B 0C9
Phone (709) 737-7805
Fax (709) 737-1985

BANK CLEARANCE LETTER

(SAMPLE)
(To be written on Proponent's Letterhead)

Our company is presently in the process of submitting a proposal to Nalcor Energy - Lower Churchill Project. One of the conditions of acceptance of our submission for consideration is the release of certain banking information on the financial status of our company.

This is your authorization to release directly to the St. John's, Newfoundland and Labrador offices of the Nalcor Energy - Lower Churchill Project, any and such information as it may request pertaining to our status with your bank including, but not limited to, length of association with your bank, types of accounts held and their balances, details of account opening and closing, lines of credit approved and amounts utilized, payment history, any failure to comply with banking covenants as established and any other details of our banking relationships (favourable or otherwise) that they may deem necessary. Any such information made available to either of the mentioned companies should also be copied to us.

This authorization is to remain in effect for six (6) months from the date of this letter.

Proponent: _____

Signature: _____

Name and Title: _____

Date: _____

HEALTH, SAFETY & ENVIRONMENT QUESTIONNAIRE

HEALTH, SAFETY & ENVIRONMENT QUESTIONNAIRE

Company places the highest priority in having a safe and healthy workplace for employees and contractors' employees and conducting all our activities in an environmentally responsible manner. Company's commitment is to be an industry leader in Health, Safety and Environment Standards in all areas of our work, and thereby achieve an accident free and healthy workplace.

To accomplish this, the Company shall only utilize consultants/contractors who meet or exceed Health, Safety and Environment Standards. The Proponent is required to provide the information specified in this Section which is designed to assist the Company in evaluating the standard and effectiveness of Proponent's Health Safety & Environment Management Systems.

Completed By: _____

Proponent's Name: _____

HSE Management System Representative: _____

Date: _____

Instructions:

Please provide your response in the spaces noted below. This completed HSE Questionnaire and supporting documentation should be included in the response to the Expression of Interest document.

1. **Employee/person_hours**

Please provide the average number of employees and estimated person hours for the last three years (including subcontractors).

	2008	2007	2006
Number of Employees	_____	_____	_____
Number of Person hours	_____	_____	_____

Workers Compensation

2. Which jurisdiction are you registered in?

NFLD (WHSCC) ☐ Other ☐ Specify _____

3. What is your company's National Industry Classification Code NIC? _____

	2008	2007	2006
4. What was your rate per $100 Payroll?			
5. What was your Experience Rating for years indicated?			
6. What was the industry average for years indicated?			

Safety / Environment (Regulatory) Compliance

7. Please provide the following information on any violations citations or incidents of compliance experienced during the past three years (including contractors).

	2008	2007	2006
Number of Violations, Citations or Incidents			
Number of Agency Inspections conducted			
Amount of fines incurred If any			

8. List of Agencies performing inspections _____

Please note: The Regulatory Compliance information is to include citations, citations and / or HSE incidents of all contractors and subcontractors while working directly for You, not just those directly attributed to you.

9. **Proponents HSE Record**

Please provide your HSE record for past three years:

Category	2008	2007	2006	Total
Person hours/year				
Environmental Incidents				
Fatalities (FAT)				

Lost Time Injuries (LTI)				
Medical Aid (MA)				
Restricted Work Cases (RWC)				
Total Recordable Incident Frequency Rate (TRIFR)				
Lost Time Incident Frequency Rate (LTIFR)				

Please perform your calculations using the following formulas:

TRIFR= # $\frac{\text{(Fat+LTI+MA+RWC) X 200,000}}{\text{Person hours/year}}$

LTIFR= # $\frac{\text{LTI X 200,000}}{\text{Person hours/year}}$

Please indicate the answer in the “response” column. If ‘yes’ then provide a reference and attach appropriate documentation or attach explanatory notes.

		Yes	No	N/A
10.0	**Leadership and Administration**			
10.1	Does your company’s Health, Safety & Environment (HSE) Program have a Policy Statement that clearly outlines the Company’s commitment to health, safety & environmental stewardship.			
11.0	**Leadership Training**			
11.1	Does your company provide formal HSE management training to management personnel?			
12.0	**Accident / Incident Investigations**			
12.1	Does your company have a written procedure for incident/accident reporting and investigation?			
13.0	**Emergency Preparedness**			
13.1	Does your company have an emergency response plan related to its activities and specific locations?			
14.0	**Organizational Rules, Policies & Procedures**			
14.1	Does your company have an Alcohol and Drug Policy? Are all employees made aware of this policy and is it enforced?			
14.2	Do you have a policy pertaining to prohibited items (e.g. knives, firearms)? Are all employees made aware of this policy and is it enforced?			
14.3	Does your company make reference to following all applicable legislative requirements in the jurisdiction where work is being performed?			
14.4	Does your company have specific work procedures for each critical task or is reference made to following specific procedures where required?			

		Yes	No	N/A
14.5	Does your company have an engineering/design standard that outlines the Company's commitment to following applicable Government Acts, regulations and statutes & industry standards?			
15.0	**Employee Knowledge & Skills Training**			
15.1	Does your company provide HSE training for Employees and Supervisors?			
16.0	**Personal Protective Equipment**			
16.1	Does your company have a policy or specific rules with respect to the use of Personnel Protective Equipment (PPE)?			
17.0	**Group Meetings**			
17.1	Does your company hold scheduled safety meetings, such as: Weekly General Safety Meetings for all crew and Weekly Departmental Meetings for each department at the work site?			
18.0	**Environment Program**			
18.1	Does your company have in place an environmental policy			

19.0 The Proponent shall confirm they have reviewed and can comply with the Health, Safety and Environment Requirements outlined herein. ☐ **Yes** ☐ **No**

PROPONENT HSE CONTACT INFORMATION

Name:	
Address:	
Telephone Number:	
Fax Number:	
Email Address	
Workers Compensation Account Number:	

When completed, please return this questionnaire to:

Cliff Rowe, Contracts Coordinator
Nalcor Energy – Lower Churchill Project
Hydro Place, 500 Columbus Drive
P.O. Box 12800, St. John's, NL
Canada, NL A1B 0C9

Phone (709) 737-7805
Fax (709) 737-1985
Email address: cliffrowe@nalcorenergy.com

HEALTH, SAFETY & ENVIRONMENT REQUIREMENTS

HEALTH, SAFETY & ENVIRONMENT REQUIREMENTS

1.0 HSE Management Plan for Project

Company has designated and implemented an LCP-OHS Management Plan (document MSD-HS-002) attached hereto, with the objective being to conduct all LCP activities in an environmentally responsible manner, in addition to ensuring a safe and healthy workplace for Company employees and Consultant employees. The LCP-OHS Management Plan, which functions within the Company's overall Integrated Management System, lays out LCP expectations in the area of Health, Safety and Environment for work conducted on the Lower Churchill Project. In keeping with the project management team strategy, Consultant will execute scope of work within Company's LCP-OHS Management Plan.

The Project may utilize systems, processes, procedures or tools identified by Consultant in its response to the Expression of Interest or any subsequent Request for Proposal.

If the Consultant has proposed an alternative project delivery method, the Consultant shall identify an HSE Management Plan to support their proposed alternative, which shall meet or exceed the Company's HSE Requirements described herein.

Consultant may participate in the following activities:

a) Communication of HSE expectations with all project participants

b) Demonstration of management commitment and leadership

c) Selection of contractors

d) HSE training

e) Verification of HSE Systems and Plans

f) Incident Management

g) Measuring and reporting of performance

h) HSE elements that will be used to drive HSE performance to achieve an injury and illness free workplace

i) Emergency Management

j) Hazard Recognition & Control

2.0 Progress Meetings – HSE Management Focus

HSE Management will be a discrete topic of regularly scheduled Consultant / Company review meetings. Relevant Consultant and Company personnel shall be in attendance to address issues identified or arising from the review and discussion.

Attachment:
Document No. MSD-HS-002, Rev. B1, LCP-OHS Management Plan

HYDRO
THE POWER OF COMMITMENT

NEWFOUNDLAND and LABRADOR HYDRO

System:	WBS:	Project:	Location:	Applicability Code:
		Lower Churchill Project	All	D-All Phases

Document Title:	Total Pages (Including Cover):
Lower Churchill Project – OHS Management Plan	27

Document Number:					Management Systems Document			
MSD	—	HS	—	002	Yes	X	No	
Doc. Set		Discipline		Sequence #				

Comments:

Previously issued as Document No. 07-7/680.

Status/ Revision	Date	Reason For Issue	Prepared By	Checked By	Checked By	Dept. Manager Approval	Project Manager Approval
B1	11-Dec-08	Issued for Use	J. Kean	M. Peddle	S. Lethbridge	J. Kean	P. Harrington

TABLE of CONTENTS

1.0 Purpose....3

2.0 Scope....3

3.0 Definitions....3

4.0 Abbreviations and Acronyms....3

5.0 Reference Documents....4

6.0 Responsibilities....4

7.0 OHS Management System Framework....4

7.1 Safety Credo....5

7.2 OHS Policy....6

7.3 Guiding Principles....8

8.0 OHS Management Plan Format....8

9.0 OHS Management Plan....7

1.0 Purpose

The purpose of this document is to outline the overall plan for the management of Occupational Health and Safety on the Lower Churchill Project. This Occupational Health and Safety (OHS) Management Plan defines LCP's expectations for OHS planning and performance and describes how the LCP will establish the OHS Management System and implement OHS initiatives. It serves to provide the guidance, framework, and details of how the Safety Credo will be embedded with the LCP.

This OHS Management Plan will help ensure that work conducted at all stages of the LCP complies with the intentions of the overall OHS Management System, OHS Policy and the Safety Credo.

2.0 Scope

The Lower Churchill Project Management Team (LCPMT) who provides the overall project management for the planning and execution of the LCP will utilize this OHS Management Plan. It is intended that this OHS Management Plan be applied to all parties associated with the LCP, including Contractors, Suppliers, and Consultants. It is a key functional component of the overall LCP Integrated Management System (IMS).

3.0 Definitions

Hazard: The potential to cause harm, including ill health and injury; damage to property plant, products or the environment; production losses or increased liabilities.

Integrated Management System (IMS): A framework of "coordinated" and "controlled" functional management resources, processes, procedures and tools that organize and direct the LCP with regards to established "project success criteria", as defined in the LCP Project Charter.

Lower Churchill Project Management Team (LCPMT): All managers and their delegates who report up to the LCP Project Manager.

Management System (functional): identifies management resources, processes, procedures and tools necessary to facilitate the achievement of the accountabilities / responsibilities of a functional group. The LCP functional groups correspond to the various functional responsibilities such as HSE, Quality, Engineering, Commercial Services, Project Services, etc., as identified in the Project Charter.

4.0 Abbreviations and Acronyms

CSA	Canadian Standards Association
ECNL	Energy Corporation of Newfoundland and Labrador
HAZID	Hazard Identification Review
HAZOP	Hazard Operability Review
HSE	Health, Safety and Environment
ER	Emergency Response
IMS	Integrated Management System
LCP	Lower Churchill Project
LCPMT	Lower Churchill Project Management Team
SWOP	Safe Workplace Observation Program

TBRA	Task Based Risk Assessment
WHMIS	Workplace Hazardous Material Information Sheet

5.0 Reference Documents

MSD-HS-001	LCP – Occupational Health and Safety Policy
MSD-HS-004	LCP – Occupational Health and Safety Management Strategy
MSD-PM-009	LCP – Integrated Management System Strategy

6.0 Responsibilities

As stated in LCP OHS Policy, the Lower Churchill Vice President bears ultimate responsibility for OHS management and performance within the Lower Churchill Project. In terms of practical implementation of OHS arrangements described in this Plan, the Lower Churchill Vice President expects his Management Team to take the lead in ensuring that all applicable arrangements are implemented within their areas of authority.

The Management Team is led by the Lower Churchill Vice President and comprises senior managers who individually and collectively have a very real responsibility for all aspects of the Lower Churchill Project business delivery including OHS performance. OHS responsibilities are further cascaded to line managers and supervisors across the organization who are charged with ensuring the effective implementation of OHS arrangements in the workplace.

Every member of the Lower Churchill Project is expected to work in accordance to the Safety Credo and to utilize the available tools and procedures that are required to complete their job safety.

The Health, Safety, Environmental (HSE) function exists to provide the necessary support, advice and guidance to assist personnel discharge their OHS obligations. The HSE function also audits the Lower Churchill Project systems and activities to provide assurance that our OHS implementation is compliant with legislation or other relevant standards and improvement opportunities are identified and acted upon.

7.0 OHS Management System Framework

The foundation of the OHS Functional Management System, as depicted in Figure 1.0, is the Safety Credo, a project-specific OHS policy, and specific guiding principles. The OHS Management Plan describes in detail the enablers and process that are used by the LCP to achieve the established performance objectives for OHS.

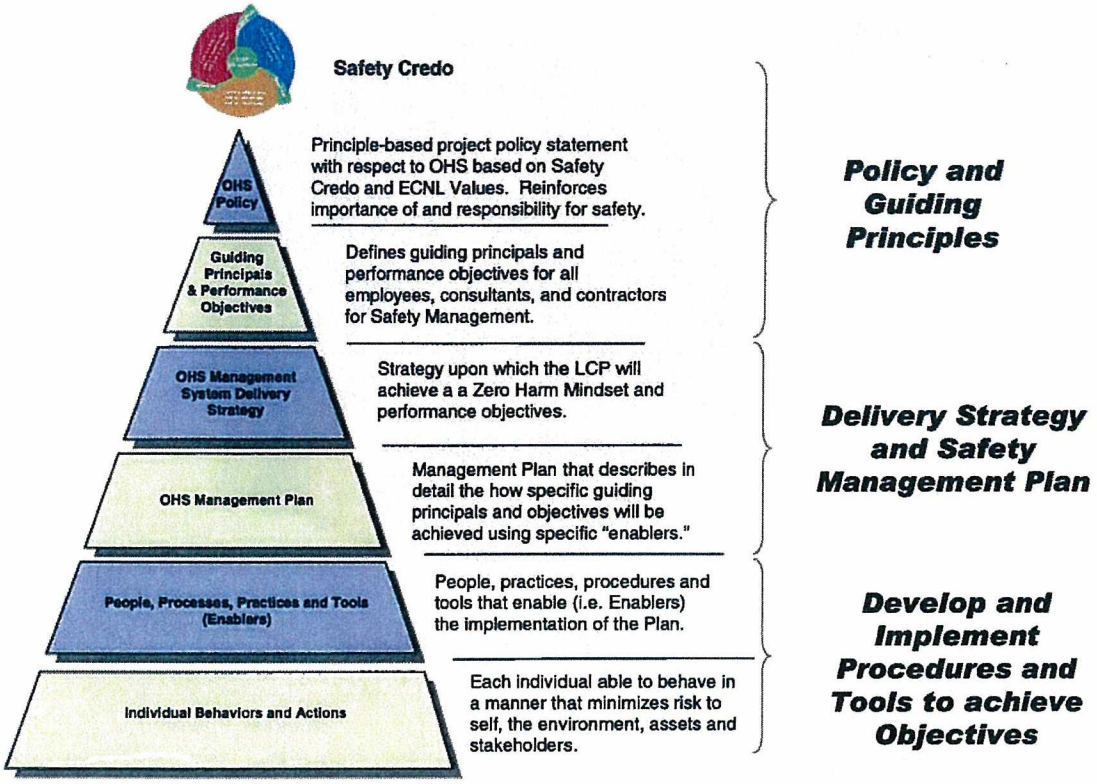

Figure 1.0: LCP OHS Management System

7.1 Safety Credo

Our approach to managing safety at the Lower Churchill Project is rooted within the Safety Credo.

The safety of our employees, contractors, visitors and the public is our first and most important priority. Our goal is a workplace where nobody gets hurt -- zero harm -- and a working environment where each and every employee is always concerned for their own safety and the safety of others. Everyone at Hydro is personally committed to these basic safety values as the foundation for our success as a safety leader.

The Safety Credo has three (3) simple rules to live by:

- I always follow safety requirements and best practices
- I always take time to complete my work safely
- I always take action when I see unsafe acts or conditions

Figure 2.0: Safety Credo

7.2 OHS Policy

The LCP OHS Policy reflects the LCPMT's commitment to OHS and the forms the basis upon which the OHS Management Plan and the OHS Management Plans of all Contractors, Suppliers, and Consultants working on the LCP is based.

This Policy and the goals embodied within it outline management's commitment to maintaining a safety culture within our organization, in the organizations of our Contractors, Suppliers, and Consultants, and in all project activities. It mandates the tangible demonstration of this commitment through compliance with the OHS Policy and by making continual improvement an integral part of activities.

Lower Churchill Project

Occupational Health & Safety Policy

The Lower Churchill Project Management Team is committed to undertake its business in such a way as to minimize the risks of injury or ill health to people and damage to property or the environment. We believe sound health and safety performance is fundamental to our successful business performance. It is therefore our requirement and expectation that everyone associated with the Project will play their part in the implementation of our health and safety management strategy, performing at the highest possible levels, and foster continuous improvement in the areas of health and safety.

All elements of the Lower Churchill Project will be aligned to the 'Zero Incident Mindset' Corporate philosophy.

ZERO INCIDENT MINDSET

Our Philosophy: We believe that all incidents are preventable.

Our Goals:

- No personal injuries.
- No work related illness.
- No material damage and financial losses.

Our Commitments:

- We will ensure this Policy is known and understood by all associated with the Project.
- We will demonstrate that nothing has higher priority than Occupational Health and Safety.
- We will create a healthy and stimulating work environment.
- We will design solutions that avoid the need for corrective measures.
- We will think, plan, observe and evaluate as we proceed.
- We will recognize those individuals who proactively contribute to Occupational Health and Safety improvement.
- We will ensure that sufficient competent resources shall be allocated to comply with this Policy.

We will do all that is reasonably practical to fulfill these commitments by implementing health and safety management arrangements to ensure that:

- We comply with all relevant Statutes, Codes of Practice, Industry Standards and Newfoundland and Labrador Hydro Corporate Policies as a minimum.
- We provide a competent work force.
- Safe places and systems of work are established.
- Risks arising from our activities are properly identified, assessed and eliminated or reduced to an acceptable level.
- Effective communication and consultation on health and safety matters takes place.
- To support the corporate Zero Incident Mindset initiative by the involvement of all employees, consultants, contractors and suppliers associated with the Lower Churchill Project in a culture of continuous improvement of health and safety performance.

The Lower Churchill Project Management Team views health and safety management as a key responsibility of line management. A professional OHS function exists within the Project Team to provide advice and guidance to line management in discharging that responsibility. In addition, every individual within the Project has a responsibility for his or her own safety and for the safety of others who might be affected by the actions or inactions of others.

This Policy Statement supports and complements the Newfoundland and Labrador Hydro Environmental Policy Statement.

Endorsed by:	Endorsed by:	Endorsed by:
Vice President, Lower Churchill Project	Project Manager, Lower Churchill Project	OHS Coordinator, Lower Churchill Project
Date: 2007-05-10	Date: 9 May 2007	Date: 9 May 2007

Rev. M1

7.3 Guiding Principles

The guiding principles upon which this OHS Management Plan is built are as follows:

- All incidents are preventable.
- Ownership by senior management and on-site supervision is mandatory through direct involvement and review of OHS programs and efforts.
- Safety is a line organization function and cannot be delegated.
- As reasonable and practicable, LCPMT has an obligation to eliminate or control known hazards and to ensure workers are competent and are supervised by a worker who is competent in the tasks to be performed.
- All LCPMT members and contractor personnel associated with the work have the right to be aware of the hazards, the right to participate, and the obligation to stop unsafe work without retribution.
- All personnel associated with the work are empowered to contribute to the OHS efforts.
- Safety performance requires establishing procedures and programs, conducting training, contractor employee involvement, routine self-evaluation, and continuous improvement.
- Prospective contractors must clearly understand that past OHS performance will be part of the criteria used to select contractors to perform work for the LCP.
- When necessary, a contractor is expected to improve or implement processes where gaps exist between their programs and the LCP's expectations.

8.0 OHS Management Plan Format

This OHS Management Plan is structured in accordance to the seven (7) core elements and seventeen (17) sub-elements as provided by the CSA Standard CSA Z-1000 released in October 2006. These elements and sub-elements are:

1. **Leadership**
   - ❖ Management Leadership and Commitment
   - ❖ Personal Behavior
   - ❖ Accountability
2. **Communication**
   - ❖ Communication Processes
   - ❖ Information and Documentation
3. **Organization**
   - ❖ Competence and Personal Development
   - ❖ Roles and Responsibilities
4. **Management of Risk**
   - ❖ Risk Assessment and Mitigation
   - ❖ Emergency Preparedness
   - ❖ Occupational Health
   - ❖ Management of Change

5. **Third Party Relations**
   - ❖ Clients and Partners
   - ❖ Contractors and Suppliers
   - ❖ The Community

6. **Product Realization**
   - ❖ Plant, Equipment and Materials

7. **Continual Improvement**
   - ❖ Incident Investigation and Analysis
   - ❖ Audits
   - ❖ Measurement Review and Improvement

This Management Plan is structured in such a way as to be both reader-friendly and informative.

The basic format of the Plan is illustrated in Figure 3.0, and includes a listing of sub-elements, guiding principles and enablers as defined below:

- **Element** – The structure which organizes the key OHS elements that needs to be managed.
- **Guiding Principle** – Answers the question of "why is it important to manage this element?" and is an expression of intent in that area.
- **Expectations and Objectives** – Describes the Lower Churchill Project Management Team's (LCPMT) expectations and objectives as related to the Guiding Principles.
- **Enablers** – Describes some of the practices that, when implemented, enable the LCP to meet the expectations and objectives. It provides us with the "how". When managed in a dynamic way new practices can be captured and made available across the organization.

Figure 3.0: Structure of the Lower Churchill Project OHS Management Plan
Elements, Guiding Principles, Expectations and Enablers

Element 1: Leadership	Element 2: Communication	Element 3: Organization	Element 4: Management of Risk	Element 5: Third party Relations	Element 6: Product Realization	Element 7: Continual Improvement
Management Leadership and Commitment Personal Behavior Accountability	Communication Processes Information and Documentation	Competence and Personal Development Roles and Responsibilities	Risk Assessment and Mitigation Emergency Preparedness Occupational Health Management of Change	Clients and Partners Contractors and Suppliers The Community	Product and Service Delivery Plant, Equipment and Materials	Incident Investigation and Analysis Audits Measurement, Review and Improvement

Described Above

Elements	Guiding Principle	Expectations	Enablers
"Structure"	"Why"	"What"	"How"
Organizes the key OHS elements that need to be managed	Describes why it is important to manage this element, and is an expression of intent in that area.	Defines LCPMT OHS expectations in this area. Apply across the company.	Practices that enable us to meet the expectations. Tools, but not mandatory. Managed in a dynamic way, allowing new practices to be captured and made available across the organization.

9.0 OHS Management Plan

Element 1: Leadership	Guiding Principle	Expectations and Objectives	Enablers
Management Leadership and Commitment	The leadership and commitment of LCP Management Team establishes the tone for OHS Management and its foundation of the project's OHS culture.	Managers will: • Ensure that a positive OHS Culture and effective OHS Management System are established, implemented, communicated and supported at every level of the organization. • Visibly demonstrate their commitment to the achievement of the Project's OHS goals and objectives. • Be interested, visible and active in promoting and supporting OHS processes and initiatives. • Deal promptly and appropriately with OHS improvement actions or suggestions within their area of control. • Give appropriate consideration of OHS performance as a key indicator of overall performance requiring equivalent management effort. • Managers will set the standard for acceptable OHS behaviours within the project by setting a model example themselves. • Nominate OHS Management Representative responsible for overall coordination of the OHS Management System and ensure the representative is trained in OHS Management elements, expectations, roles and responsibilities. ▪ Allocate resources necessary to achieve our established OHS performance goals and targets.	• Site visits to include OHS matters. • Involvement in the establishment, management and tracking of Project/Individual OHS goals and objectives. • OHS features as a key agenda item at management meetings. • OHS is focused on the proactive prevention of incidents and is seen as an integral part of our operations. • Involvement in OHS Coordination/Steering Committee. • Encourage the continued promotion and awareness of Project OHS performance. • Managers have personal OHS performance contracts. • Inclusion of OHS roles, responsibilities and accountabilities in managers job descriptions. • Inclusion of OHS performance as an integral part of the performance appraisal process. • The nominated OHS Management representative is indicated on the Organization chart.

Element 1: Leadership	Guiding Principle	Expectations and Objectives	Enablers
Personal Behavior	Taking personal responsibility for our own behavior is essential to our OHS performance. All project personnel can serve as leaders by the example they set.	Personnel at all levels: • Care for others, their safety and their well being. • Are aware of their influence as a role model, at work, at home and in their spare time. • Practice sound OHS behaviour on and off the job (24/7). • Intervene constructively with at-risk behaviours and conditions • Are attentive to others behavioural changes, and respond appropriately • Follow defined OHS policies, procedures, rules and standards.	• Orientation programs in place which cover Safety Credo, Corporate Values, Internal Responsibility System, OHS policy, culture and procedures/rules • Supervisor OHS Responsibility training takes place as required • Behaviour based OHS programmes are in place • OHS expectations are effectively communicated to all employees • Behaviour observations are periodically performed, • Employee OHS Surveys are performed, analyzed and used to establish corrective actions, as appropriate.
Accountability	Everyone associated with the LCP and our operations is accountable for their own actions. Deviations from standards of acceptable behavior are dealt with in a fair and consistent manner.	Personnel at all levels: • Understand what is expected and are accountable for their actions and inactions. • Use their authority and responsibility to react to all observed or known at risk behaviours, or unsafe conditions. • Respond in an open and fair manner to incidents reported and issues raised. • Practice tolerance for mistakes but are aware of and accept consequences for reckless behaviours • Are receptive to constructive feedback from others.	• Role Descriptions • Functional Responsibility charts • Orientation program focusing on these expectations given to all employees • A clear Zero Tolerance policy communicated to all employees • A clearly defined disciplinary program is communicated to all employees • Supervisor OHS training programmes in place • A clearly defined substance abuse prevention policy is posted and included in orientation literature • Business Code of Conduct in place

Element 2: Communication	Guiding Principle	Expectations and Objectives	Enablers
Communication Processes	Open and effective communication is the key to the success of the Project. Effective internal communication is crucial to the development of an informed and motivated workforce. Effective external communication preserves our OHS reputation and enhances our business standing and credibility.	Arrangements will be in place which ensure that Managers: • Identify, develop and maintain systems for the control of information necessary for working safely and assure regulatory compliance with OHS issues. • People are properly informed of OHS risks and control measures. • Managers and Supervisors will encourage employees at all levels to raise OHS concerns without reprimand and shall respond to these concerns in a timely and appropriate manner. • Encourage consultation on OHS matters to explore opportunities for influencing issues. • OHS campaigns and initiatives receive adequate publicity. • OHS Representatives and committees are supported and encouraged to contribute to the Project's OHS performance. • An effective channel is established between management, employees, third parties and clients concerning existing, new or evolving OHS issues. • Personnel at all levels are positively encouraged to give feedback, propose improvements, share information and best practice. • Proper liaison with clients, contractors, sub-contractors and external bodies on OHS issues occurs.	• OHS meetings/toolbox talks • OHS Reps committee meetings • New Employee Orientation • Project newsletters • OHS bulletins and alerts (Lessons Learned) • Industry forum representation and participation • Management site visits with focus on OHS • Meetings with clients, contractors/subcontractors • OHS Publicity campaigns • Personal OHS performance contracts • Effective communication channels are in place without filtering mechanisms • Effectively communicate any changes to OHS practices, policies and procedures • Review training programs periodically to ensure current technology, applicable risks and regulatory requirements are addressed • Establish an Employees suggestion program • Encourage use of a Safety slogan/theme program • Use of Safe Work Observation Program (SWOP) • Track leading and lagging indicators

Element 2: Communication	Guiding Principle	Expectations and Objectives	Enablers
		• The Project is represented on industry bodies and positioned to influence and shape OHS policy and regulatory matters. ▪ OHS achievements are given due publicity and recognition.	

Element 2: Communication	Guiding Principle	Expectations and Objectives	Enablers
Information and Documentation	The availability of accurate, relevant and current information and documentation is a key contributor to successful OHS performance. Processes for capturing and sharing knowledge are in place to deliver the best available OHS practice to our operations.	Effective information and documentation management systems are in place such that: • Drawings and other pertinent documentation necessary for OHS compliant operations are identified, current and readily accessible. • All applicable regulations, codes and standards are identified, current and readily accessible. • Document retention and archiving requirements are established and satisfied. • The currency of the system and procedures is ensured. • Roles and responsibilities in relation to information and documentation management are clearly understood. • Appropriate use is made of electronic information management systems.	• Integrated Management System • Document management system • OHS plans and interface documents • OHS library / databases • Intranet • Communicate Important OHS Regulatory Changes • Document retention procedures • Document disaster recovery procedures • Periodic assessment/audits of informational systems for effectiveness, compliance with policies and procedures • Regulatory compliance management plan in place • Lessons learned capture and implementation process.

Element 3: Organization	Guiding Principle	Expectations and Objectives	Enablers
Competence and Personal Development	OHS and business performance is largely influenced by the competence of its employee's contractors and sub-contractors. The maintenance of a stable, competent and motivated workforce is a critical OHS factor.	Managers will assure that: • Effective recruitment, selection and placement processes are in place • OHS competence requirements are identified, gaps analyzed and training programs are in place to close the gaps. • OHS mindset and competence requirements are applied in recruiting, selection, succession planning and promotion at all levels. • Personal appraisal/performance and development reviews take place for employees. • LCP employees are encouraged and supported in their career development. • To the extent practicable, succession planning is in place. • Ensure that a comprehensive training program is in place for all individuals to ensure the correct level of competence and OHS awareness is attained prior to any change in their job duties. • OHS training is provided by competent people and its effectiveness is properly reviewed. • Competence and development program effectiveness is periodically reviewed.	OHS to be included as a part of: • Recruitment, selection and placement procedures • Resource forecasting and allocation • Project / site inductions • Position / role descriptions including OHS competency requirements. • Succession plans • Competence assurance systems/testing and verification • Personal appraisal / development programs including a review of overall OHS performance • Training need analysis • Training matrices / plans • Program effectiveness evaluation including review of assigned tasks and targets with respect to OHS roles. • Competence training in OHS policies and procedures, hazards awareness and required certifications

Element 3: Organization	Guiding Principle	Expectations and Objectives	Enablers
Roles and Responsibilities	Defining and understanding roles and responsibilities are key to achieving our OHS objectives. Appropriate resources are allocated and responsibilities defined and communicated.	Arrangements will be in place to ensure that: • OHS responsibilities are a defined and integrated part of all roles, and are communicated and understood. • Appropriate resources are allocated to enable LCPMT to reach its OHS objectives. • Appropriate OHS resources are allocated in relation to project execution. • An OHS function is in place to support the organisation, is identified on organization charts, and reports at the highest appropriate level within the organisation. • OHS committees and representatives are appointed, their roles are defined and they are involved in OHS processes at all levels.	• Recruitment, selection and placement procedures. • Resource forecasting and allocation. • Position descriptions including OHS competency requirements. • Orientation/ Induction training program focusing on these expectations given to all employees • People surveys and interviews. • Site OHS procedures. • OHS resources included in budgets. • OHS function identified on organization chart and participates in business management meetings as appropriate.

Element 4: Management of Risk	Guiding Principle	Expectations and Objectives	Enablers
Risk Assessment and Mitigation	LCPMT will ensure that OHS risks arising from, or associated with its activities, are identified, assessed and effectively managed, so as to eliminate or reduce them to a level that is as low as reasonably practicable.	Arrangements will be in place to ensure that: • OHS risks are identified and their consequences and probabilities properly assessed (to ensure that risks, so far as reasonably practicable, are assessed based on probability of occurrence, risk, severity, consequences to personnel and the environment and are controlled utilizing the following hierarchy: Risk Elimination, Engineering Design to Mitigate Risk, Incorporate Safety Devices for Risks that can not be mitigated, Provide Warning Devices or Personal Protective Equipment). • Appropriate risk reduction or mitigation measures are identified and implemented and managed to completion. • Risk assessments are facilitated and undertaken by competent personnel including, where necessary, expertise external to the Project. • Risk assessments are subjected to an appropriate review and validation process. • Risk assessments are properly documented and action items closed in a timely manner. • Affected personnel are made aware of, and understand risk assessment results and recommendations relating to their activity.	• Risk Policy in-place and supporting risk management program which includes OHS related risks. • Ensure identified risks are addressed at the appropriate level, given the nature and magnitude of the risk. • Ensure adequate risk control equipment/practices are included as part of design, construction and operations. • Risk register and risk mitigation / control plan in-place • Risk mitigation /control measures are effectively communicated. Throughout the project execution phases perform various OHS specific risk assessment / management activities: • Conduct HAZID, HAZOP, QRA, etc. • Conduct constructability assessments • Conduct Task based risk assessments (TBRA) • Implement Step Back 5 x 5 • Implement WHMIS • Conduct Manual and equipment handling assessments • Conduct ergonomic assessments • Conduct fire risk assessments • Implement hazard recognition and reduction methods included in training

Element 4: Management of Risk	Guiding Principle	Expectations and Objectives	Enablers
Emergency Preparedness	Emergency preparedness is essential in order to protect people, the environment and assets. We have emergency response plans in place which enable us to respond to reasonably foreseeable emergencies.	Arrangements will be in place to ensure that: • Emergency response plans are based on an assessment of potential incidents and threats, and are documented and well understood by all affected parties • Personnel with emergency response roles and responsibilities are fully trained and competent • Appropriate emergency response facilities and equipment are provided and maintained in fully operable condition. • Personnel security is assessed and included in emergency response plans. • Interface arrangements with contractors, subcontractors and the community include well defined emergency response responsibilities. • External communication roles concerning emergency responses are documented and understood by all parties. • Emergency response drills and exercises are undertaken regularly. • The competency of those involved in ER is assessed on an ongoing basis.	• Coordination procedures and documents for ER roles and responsibilities with contractor interface. • ER (Emergency Response) procedures and plans are established and organization trained • New employee / visitor orientation including ER. • Periodic ER drills and exercises. • ER training conducted including hands-on and simulated exercises, as appropriate. • Duty rosters established and maintained current. • ER facilities on site established and maintained in fully operable condition (e.g. 1st aid equipment, fire fighting equipment, emergency phone numbers). • Evacuation plans prepared and in place and known to appropriate personnel. • Equipment check records established. • Media interface training for emergency situations.

Element 4: Management of Risk	Guiding Principle	Expectations and Objectives	Enablers
Occupational Health	The Project will actively monitor its activities to ensure that appropriate measures and programs are in place to protect our employees from harm as a result of occupational health hazards.	Managers will ensure that: • All employees are encouraged to raise occupational health issues and concerns. • Ensure communication of known health related hazards and remedial measures to all affected personnel. • Appropriate corrective/preventative measures are implemented in a timely manner. • Follow-up actions are taken to ensure appropriate provisions are adopted and fully implemented. • Identify and implement regulatory and best practice medical practices, procedures and programs.	• Employee Health Questionnaires • Applicable periodic physicals • Health communications through bulletins, e-mails, programs, training and procedures. • Follow-up medical examinations, as identified and applicable. • Medicals for known and specified regulated activities • Health Risk Assessments • Worksite Health Assessments • Worksite Health Inspections • Health Awareness Training • Health Related Awareness Bulletins • Budget for medical and health assessments related to remote project locations, during planning phase.
Management of Change	Changes in operations, organization, facilities, systems and procedures must be properly evaluated and managed in such a way as to minimize any potentially adverse OHS impacts. Best practices should be captured during the transitional phase.	Arrangements will be in place that will allow for proper assessment and control of change for: • Organization, staffing, roles and responsibilities for change management • Management systems, processes and procedures • Facilities, plant, process and equipment • Work scope/tasks include change management documentation requirements. • Regulations, procedures and standards • Changes are appropriately documented,	• Management of change process • Personnel transfer/promotion processes • Change control processes and procedures • Levels of authority for change approval • Monitoring, audit and review processes • Change item action tracking • Document/Communicate Changes • Review/Approval Process • Work scope changes

Element 4: Management of Risk	Guiding Principle	Expectations and Objectives	Enablers
		reviewed, approved, communicated and authorized prior to execution • Change implemented is periodically monitored and reviewed and any action items resulting from the review are addressed in a timely manner prior to change closure	• Matrix of compliance related to authority rules and regulations. • Monitoring, audits and review process • Revision controlled technical documents

Element 5: 3rd Party Relations	Guiding Principle	Expectations and Objectives	Enablers
Clients and Partners	Interfaces and relationships with clients and partners are critical for our common OHS performance. We work closely to manage our roles and align expectations and goals	Arrangements will be in place to ensure that: • OHS responsibilities, roles and interfaces are clearly defined, documented and agreed between the involved parties. • OHS expectations and objectives are aligned between the involved parties. • We maintain an open dialogue on OHS issues at appropriate levels in the organization.	• OHS meetings (or segments of meetings) • Bridging documentation • Audit plans • Reporting processes • Role and responsibility definitions.
Contractors and Suppliers	The risk presented by third parties (contractors/sub-contractors and suppliers) can have a significant impact on the Project's OHS performance and reputation. Such risks need to be properly managed to minimize potentially adverse effects. Third party OHS performance is our OHS performance.	Arrangements will be in place to ensure that: • Third parties are selected based on consideration of their OHS performance. • OHS programs and overall compatibility with the Project's OHS Management Systems. Third party OHS performance shall be a factor in the selection process. • Third parties OHS arrangements are properly assessed as part of the selection process. • Third parties OHS standards are broadly similar to those of the Project and are appropriate to the risk criticality of their services and products. • Suppliers and sub-contractors are involved at an early stage to allow risks to be identified and properly managed. • The Project requirements in respect of OHS Responsibilities and performance are defined and communicated to third parties. • Third parties have clearly defined roles and responsibilities for their individual managers.	• Selection strategy documentation for major and minor package suppliers • Contractor pre-qualification and selection • Pre-bid Meeting reviewing OHS with bidders • Pre-contract award OHS assessment • Safety performance terms and conditions included in contacts • OHS Coordination Procedures contained in all contracts • OHS development program/improvement plan • Regular meetings with all contractors • Site visits • Interface documents • Performance monitoring plans • Periodic Performance Audit/follow-up • Contract/project close-out reports

Element 5: 3rd Party Relations	Guiding Principle	Expectations and Objectives	Enablers
		• Interfaces between the Project and third parties is clearly defined and effectively managed. • Monitoring of third party performance includes OHS and deficiencies are identified and corrected and preventative measures are put in place. • Contractors/subcontractors and suppliers understand that consequence for poor OHS performance, or lack of agreed improvements, can be up to and including stop work orders and in extreme cases termination of work • Lessons learned from 3rd parties are captured and openly shared within the LCPMT	• Contractor OHS Plan prepared to address the specific scope of work
The Community	Good community relations are crucial for our long term success. We are good neighbors and seek to contribute to the communities in which we operate	Arrangements will be in place to ensure that: • Risks to the communities associated with the Lower Churchill Project are openly communicated to the appropriate parties. • Our project contributes in a positive manner to the communities where we operate. • We cooperate with authorities, non government organizations and industry organizations on OHS matters.	• Emergency response plans • Open facility/family days with OHS focus. • OHS initiatives with local schools, and voluntary groups • Stakeholder management plans that include consideration for OHS

Element 6: Product Realization	Guiding Principle	Expectations and Objectives	Enablers
Plant, Equipment and Materials	Take all reasonably practicable steps to ensure that OHS risks arising from provision and use of plant, equipment and materials are effectively managed and minimized.	Arrangements will be in place to ensure that: • Proper selection and specification of plant, equipment and materials take place. • Effective procurement processes and quality control systems are in place to minimize risk importation. • Plant, equipment and materials provided are safe, compatible, of good quality and fit for their intended service and are renewable/recyclable (whenever possible). • Fully compliant with equipment inspection, certification, quality assurance and maintenance requirements. • Appropriate information, instruction and training on the safe use, handling storage and environmentally sound methods of disposal of plant, equipment and materials are made available to affected personnel.	• Specification and procurement processes are in place and reviewed periodically. • Operating, inspection and maintenance procedures including OHS stipulations. • WHMIS assessments/product data sheets. • Certification plans are in place and reviewed periodically. • Information, instruction and training are current, available and reviewed periodically. • Ensure that appropriate personal protective equipment is readily available and utilized by affected personnel. • Routine OHS audits of operating plant.

Element 7: Continual Improvement	Guiding Principle	Expectations and Objectives	Enablers
Incident Investigation and Analysis	The causes of accidents and incidents contain a key to prevention. We have processes in place for reporting, investigating, managing corrective and preventive measures and sharing lessons learned. Recognize the importance of effective incident reporting, investigation and analysis as a contributor to continuous improvement in OHS performance.	Arrangements will be in place to ensure that: • An effective system is in place to encourage (without repercussion) the open reporting of all incidents, environmental releases/spills, near misses and unsafe conditions/activities. • Systems are in place to ensure that all incidents (including near-misses) are promptly reported and subjected to a comprehensive investigation, as appropriate to their potential. • Persons involved in investigations are fully trained and competent. • Immediate, underlying and root causes of incidents are identified. • Corrective and preventive measures are identified; actions assigned, and followed up to ensure implementation and improvement. • A system is in place to ensure compliant reporting of incidents to regulatory authorities as required • Accurate facts pertaining to an incident are brought to the attention of the appropriated level of management. • Lessons learned are shared with other interested/potentially affected parties. • Incident investigation findings feature in management system reviews as appropriate. • Incident statistics/details are analyzed and input to improvement processes.	• Incident reporting and investigation procedure • Root cause analysis tools and techniques • Incident investigation training provided by competent person(s) • Included in New Employee Orientation • NL OHS Compliance • OHS bulletins and alerts • Incident tracking and trending databases • Action tracking register • Safe Work Observation Program (SWOP) • Lessons learned distribution

Element 7: Continual Improvement	Guiding Principle	Expectations and Objectives	Enablers
Audits	Audits monitor compliance and help drive improvement. OHS requirements will be audited periodically to ensure effective management. Audit, assess, and review performance, activities and systems to assure compliance with both internally and externally imposed standards and drive continuous improvement within the project.	Arrangements will be in place to ensure that: • Audit programs that address OHS are in place. • Audit scopes and frequencies are risk based. • Audits are conducted by competent persons. • Findings and actions are agreed with auditees. • Audit results are communicated to the appropriate level of management. • Lessons learned are shared with appropriate parties. • Regularly access compliance with the elements of the OHS Management Plan. • Periodically access compliance with OHS regulatory requirements. • Audits may also be performed by personnel outside the project, having auditing expertise. • Auditees are identified, notified and involved in the process to an appropriate degree. • Findings are properly communicated to auditees and to an appropriate level of Project management, along with any trends noted. • Findings resulting from an audit are assessed, documented, prioritized and monitored until satisfactorily resolved. • Audit entitlement/expectation is agreed with clients and documented in contract and interface documents. • Properly constituted management reviews take place. • Lessons learned are shared with interested parties.	• Audit programs and schedules • Audit procedures and protocols • Auditor training program • Audit reports • Internal and external audits • Action tracking systems and periodic review • Interface documents • Management reporting and reviews • OHS bulletins • Audit trending and communicating trends to management. • Multi-faceted/disciplined teams to perform the audit.

Element 7: Continual Improvement	Guiding Principle	Expectations and Objectives	Enablers
		• Effective OHS audit procedures are in place to evaluate compliance with work procedures, work rules and permits for critical tasks/activities.	
Measurement Review and Improvement	Effective improvement measures are based on a combination of available information. Information is reviewed from leading and lagging measurements, incident investigations, audits and other sources to identify and prioritize improvement initiatives.	Arrangements will be in place to ensure that: • Leading and lagging OHS indicators are measured, reviewed and used as input to improvement initiatives. • OHS feedback from all parties is used as input to improvement plans. • OHS driven management reviews are conducted. • Improvement plans include data from all sources. • Processes exist to manage OHS improvement actions to completion. • OHS improvement plans are considered in the Project strategy process.	• Occasional reporting and visualization of OHS performance • People OHS surveys • Action tracking process and system • Management review process • Lessons learned capture and sharing process

QUALITY MANAGEMENT QUESTIONNAIRE

QUALITY MANAGEMENT QUESTIONNAIRE

The Proponent is required to answer all questions and provide the information specified in this “Quality Management Questionnaire”. This information will be used to assist the Lower Churchill Project in evaluating the Proponent’s ability to meet Quality Assurance requirements specified in the Agreement document.

NOTE: In all cases the Proponent should provide copies of internal documented procedures to support their answers to the questions below.

1.0 Quality Management System

Does the Proponent operate under a formal, documented Quality Management System? If so, briefly describe the basis of the system, how long it has been implemented and how it will be applied to ensure the **services** are delivered in accordance with the proposed scope of work. Please provide the following information.

i) Proponent's quality policy statement and list of current quality objectives.
ii) Proponent's Master Documents List or the Table of Contents of your Policy and Procedures Manual.
iii) Proponent's current Internal / External Audit Schedules.
iv) Proponent's third party ISO 9000 registration, if available.
v) If ISO 9001:2000 registration is held, a copy of last third party surveillance report.

2.0 Contract Review And Quality Planning

Briefly describe any processes employed to plan the activities related to the requested **services**. If available, provide typical examples of **Quality Plans and / or Inspection and Test Plans**.

3.0 Capacity And Resources

Describe how this work relates to the total annual productive capacity of Proponent's company and that of Proponent's main suppliers.

4.0 Design Control

Briefly describe the processes used to control the design of the **services** to be supplied. Include references to the following processes:

i) Design Planning
ii) Design Review
iii) Design Verification
iv) Design Validation
v) Design Changes

5.0 Supplier / Sub-Contractor Management

Briefly describe the Proponent's **Sub-contractor** selection process and any processes employed to monitor continued performance against Agreement requirements. In Proponent's response include a list of any services associated with the scope of work that would be sub-contracted out and where appropriate, the contract details for that Sub-Contractor.

6.0 Quality Control

What techniques does the Proponent employ to verify that the **services** have been **delivered** appropriately and in accordance with the Agreement requirements? What verification records are generated?

7.0 Documentation / Records And Material Traceability

Briefly describe the Proponent's records retention system and the normal records retained (or supplied to the client) as part of the **services** delivery.

8.0 Management Of Non-Conformances (Identification & Disposition)

When **services** do not meet requirements, what processes are employed to ensure timely resolution of the problem? If so, what records of the problem and solution are generated?

9.0 Continuous Improvement

Does the Proponent employ any continuous improvement processes or other methods to monitor evaluate and improve the quality of **services** provided? If so, briefly describe them. Include in your response details on the following:

i) Processes to monitor and measure effects of continuous improvement changes.
ii) Processes for the evaluation and implementation of innovative and cost reduction ideas.

10.0 Internal / External Audits

Does the Proponent employ any processes to monitor internal / external activities to ensure conformance to procedures? If so, briefly describe them.

11.0 Training And Competency Management

Briefly describe the Proponent's Training Policy and any controls used to ensure personnel are competent to perform their defined functions and responsibilities.

12.0 Customer Satisfaction

Briefly describe any processes employed to monitor Customer Satisfaction and how these processes will be applied to the proposed scope of work.

13.0 Agreement Quality Requirements

The Proponent shall confirm that it has reviewed and can comply with the Company Quality Requirements, outlined herein.

I hereby certify that I have reviewed and can comply with the Company Quality Requirements outlined herein and that the particulars stated within are true and correct.

Name: _____

Title: _____ Date _____

QUALITY REQUIREMENTS

1.0 Quality Management Plan for Project

Company has designated and implemented a Quality Management Plan (QMP) (document MSD-QM-020 located in Scope of Work and Technical Attachments, Attachment B – Company Provided Documents) with the objective being to help effectively manage the functional activities of the Lower Churchill Project. The QMP, which functions within the Company's overall Integrated Management System, is designed to provide the appropriate level of quality management, assurance and control. The plan is consistent with the principles of ISO 9001:2000. In keeping with the project management team strategy, Consultant will execute the scope of work within Company's QMP.

The QMP:

a) emphasizes building quality into the work through the use of documented control processes that incorporate necessary activities to assure quality.
b) is formally documented and in compliance with ISO 9001.
c) will be supported by an established quality organization with qualified resources, and formally documented control procedures to effectively administer and implement the requirements.
d) will produce documentation to demonstrate the quality of work performed.
e) will be supported by a functioning audit program in place to provide verification of compliance with all quality requirements.
f) will be able to demonstrate that:
   - all personnel related to a given work process, understand the respective job requirements.
   - ensure qualified inputs, qualified resources (personnel, tools, equipment and materials), and qualified work processes are used to produce work in conformance with defined procedures.

Consultant shall submit to Company all of its control procedures for review and comment. As indicated in section 10.0 of Exhibit 3 (Scope of Work and Technical Attachments), the project may utilize such control procedures or integrate them into Company's Integrated Management System.

If the Consultant has proposed an alternative project delivery method, the Consultant shall identify a Quality Management Plan to support their proposed alternative, which shall meet or exceed the Company's Quality Management Requirements described herein.

2.0 Additional Requirements

Consultant shall, working within the Engineering Deliverables Team:

a) Ensure that individual Quality Plans are developed for the following

   - Design Subcontractors,
   - Vendors, and Sub-vendors (as identified in the Vendor's list of Sub-vendors) approved by Company.

b) Define and staff overall organization to manage and control quality of the work.

c) Ensure quality throughout the work, including work performed by Subcontractors / Vendors / Sub-vendors.

d) Provide quality assurance for the work, consisting of all those planned and systematic activities that are necessary to establish quality requirements and to ascertain with confidence that the work will conform to established requirements.

e) Provide quality control for the work, consisting of those quality controls and activities that provide a means of measuring and controlling the characteristics of an item, element, component, product or service to meet the established requirements.

f) Identify and resolve deficiencies detected during the execution of the work.

g) Address and resolve, to Company's satisfaction, issues identified during:

- Company reviews, audits/assessments and surveillance
- Third party reviews such as reviews by Independent Engineers and Technical Panels

h) Provide Company personnel and designated representatives timely and free access to all work (documents and records, work sites) for the purpose of review and audit/assessment. Consultant shall ensure that its Subcontractors, Vendors and Sub-vendors are also required to provide this right of access.

i) Support Company's quality assurance and quality control activities related to the work.

j) Participate in the development and execution of quality audit schedule and to provide periodic verification of compliance with the approved Quality Plans and associated control procedures, including those of Subcontractors, Vendors and Sub-vendors.

k) Perform design control, including establishing design requirements, reviewing design inputs, and reviewing and approving design outputs.

l) Control design changes. Maintain design change control log. Include review by Quality Representative for compliance with quality requirements.

m) Provide design review and approval matrix identifying Consultant and Company participation.

n) Prepare design review plan and design verification plan. Conduct design reviews and verification, including independent reviews, in conjunction with the Engineering Deliverables Manager, to ensure that design requirements are met.

o) Approve Subcontractor / Vendor Quality Plans and control procedures as applicable. Track all quality submittals and maintain a register of status to ensure that submittals are provided, and approved in a timely manner.

p) Conduct reviews of procurement documents for compliance with quality requirements.

q) Conduct meetings as applicable with Subcontractors and Vendors providing services, applicable to the scope of work.

r) Detect, report and control non-conforming processes and items, including Subcontractor and Vendor activities.

s) Provide quality metrics for gauging quality performance, and report status monthly/weekly as agreed with Company.

t) Develop and implement corrective and preventive actions to resolve quality issues and concerns for all phases of work. Resolve all non-conformances.

3.0 Progress Meetings – Quality Management Focus

Quality Management will be a discrete topic in regularly scheduled Consultant/Company Review meetings. Relevant Consultant and Company personnel shall be in attendance to address issues identified or arising from the review and discussion.

Attachment:

Document No. MSD-QM-020, Rev. B1, Quality Management Plan

HYDRO
THE POWER OF COMMITMENT

NEWFOUNDLAND and LABRADOR HYDRO

System:	WBS:	Project:	Location:	Applicability Code:
		Lower Churchill Project	**All**	**A**

Document Title:	Total Pages (Including Cover):
Lower Churchill Project – Quality Management Plan	**22**

Document Number:					Management Systems Document			
MSD	**—**	**QM**	**—**	**020**	**Yes**	**x**	**No**	
Doc. Set		**Discipline**		**Sequence #**				

Comments:

Issued for Phase 3 (Develop Selected / Preferred Alternative) Implementation

Status/ Revision	Date	Reason For Issue	Prepared By	Checked By	Checked By	Dept. Manager Approval	Project Manager Approval
B1	11-Sep-08	**Issued for Use**	M. Peddle	J. Ludlow	R. Power	J. Kean	P. Harrington
A1	**31-Jul-08**	**Issued for Review/Comment (IDC)**	M. Peddle	J. Ludlow	R. Power		

Table of Contents

1.0 Purpose 3
2.0 Scope 3
3.0 Definitions 3
4.0 Abbreviations and Acronyms 4
5.0 Reference Documents 4
6.0 LCP Quality Management System 4
7.0 LCP Quality Policy 5
7.1 Quality Policy 5
7.2 Quality Management Expectations 7
8.0 Quality Management Plan 7
8.1 Quality Management Principles 7
8.2 Quality Planning 8
8.3 Audit / Assessment / Nonconformance 8
8.4 Control of Documents and Records 9
8.5 Integration with Document Management Tool 9
8.6 Quality Management Plan Implementation 9
8.7 Continuous Improvement & Lessons Learned 10
8.8 Contractor and Supplier Responsibilities 10
8.9 Orientation & Training 10
8.10 Measurement, Analysis and Improvement 11
8.11 Management Review 11
9.0 Quality in Engineering 12
9.1 Overview 12
9.2 Engineering Quality Roles & Responsibilities 12
9.3 Engineering Design & Development 13
9.3.1 Design Planning 14
9.3.2 Design Inputs / Outputs 14
9.3.3 Design Review 15
9.3.4 Design Verification 15
9.3.5 Design Validation 16
9.3.6 Design Change 16
9.4 Engineering Records 16
10.0 Quality in Procurement / Contracts 17
10.1 Overview 17
10.2 Quality Roles and Responsibilities 17
10.3 Contractor / Supplier Quality Requirements 17
10.5 Evaluation of Contractors / Suppliers 18
10.6 Verification of Purchased Product 18
11.0 Quality in Construction 18
12.0 Reporting Quality Metrics 18
13.0 Quality Co-ordination Procedure 18
14.0 Appendices 18

1.0 Purpose

The purpose of this document is to outline the overall plan for the management of quality and the achievement of continual improvement in the Lower Churchill Project (LCP). This Quality Management Plan (QMP) defines LCP's expectations for quality planning and performance and describes how LCP will establish the Quality Management System (QMS) and implement quality initiatives.

This document highlights the importance of systems (resources, procedures, processes and tools) to the successful achievement of LCP quality goals and objectives. It provides for the appropriate levels of quality management, quality assurance and quality control for project related activities.

This QMP will help ensure that work conducted at all stages of the LCP will comply with applicable regulatory, statutory, permitting and governmental requirements; meet sound and generally accepted engineering and construction practices; be consistent with functional and operational needs of the project; and meet business and project objectives.

This QMP has been developed in accordance with the principles of ISO 9001:2000.

2.0 Scope

The Lower Churchill Project Management Team (LCPMT), who will provide overall project management for the execution of the LCP, will utilize this QMP. It is intended that this QMP be applied to all parties associated with the LCP, including Contractors, Suppliers and Consultants. It is a key functional component of the overall LCP Integrated Management System (IMS).

Copies of this document will be made available to Engineering, Procurement and Construction contractors and suppliers where deemed appropriate.

3.0 Definitions

Audit / Assessment: A systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives – essentially to confirm that procedures are established and are being followed.
An Audit / assessment can apply to an entire organization or might be specific to a function, process or production step.

Corrective Action (CA): Action taken to identify and correct the root cause(s) of a problem, in order to ensure that the problem does not occur again. Corrective action is reactive in nature.

Noncompliance: Failure to meet the requirement of the applied standard, management systems requirement or other authority. Noncompliances are generally called where there is no process or procedure in place to address the requirements or where the process or procedure is not applied or is ineffective overall. Corrective Action Requests are raised to deal with non-compliance issues.

Nonconformance: A failure to meet a stated, obligatory or generally implied requirement. A nonconformance may be identified in products, materials, services, documents, processes, etc. A nonconformance may involve LCP personnel and activities or the personnel and activities of others which affect LCP work.

Preventive Action (PA): Action taken to identify and **address a potential problem** in order to prevent it from occurring. Preventive action is **proactive** in nature. The preventive action process may also be used to investigate opportunities to effect change and proactive improvements regardless of the likelihood of a future problem occurring.

Quality Management: Coordinated activities to direct and control an organization with respect to quality. Establishes sufficient controls to ensure that all organizational processes contribute to the provision of quality products and services. Quality Management pushes the organization towards continual improvement.

4.0 Abbreviations and Acronyms

ECNL - Energy Corporation of Newfoundland and Labrador
HAZID – Hazard Identification
HAZOP – Hazard Operability
IMS – Integrated Management System
ITP – Inspection & Test Plan
LCP – Lower Churchill Project
LCPMT – Lower Churchill Project Management Team
NCR – Nonconformance Report
QA – Quality Assurance
QC – Quality Control
QMP – Quality Management Plan
QMS – Quality Management System
VIP – Value Improving Practice

5.0 Reference Documents

MSD-MM-014	LCP - Project Management Approach and Contracting Strategy (Post Gate 2)
MSD-MM-018	LCP - Supply Chain Management – Contract Package List
MSD-PJ-007	LCP - Project Change Management Procedure
MSD-PM-001	LCP - Quality Policy
MSD-PM-006	LCP - Basis of Design
MSD-PM-009	LCP - Integrated Management System Strategy
MSD-QM-005	LCP - Lessons Learned Procedure
MSD-QM-006	LCP - Supplier Quality Assurance Strategy
MSD-QM-014	LCP - Contractor Quality Plan Guidelines
MSD-QM-024	LCP - Project Audit Procedure
MSD-QM-025	LCP - Quality Performance Measurement and Reporting
MSD-QM-027	LCP – Management Review Procedure
MSD-QM-030	LCP - Contractor Quality Coordination Procedure

6.0 LCP Quality Management System

Effective quality management is a key component of the LCP management philosophies. The LCPMT believes that the real value to be gained from adopting a structured QMS lies in its ability to help the LCPMT and our Contractors / Suppliers achieve the quality objectives as well as the objectives set forth in our Health & Safety System and Environment Management System.

As depicted in Figure 1 "LCP - Quality Management System", the QMS consists of this QMP, plus the QMP's of all Contractors, Suppliers and Vendors that perform work on behalf of LCP. QMP's from Contractors, Suppliers and Vendors will be reviewed and approved by LCP prior to use.

This QMP, along with the LCP Integrated Management System, leverages internal synergies to promote process and system alignment for increased effectiveness and efficiency, thereby fostering a more holistic view of organizational performance. Functional management plans, along with this QMP meet all of the components of the ISO 9001:2000 Quality Management Standard.

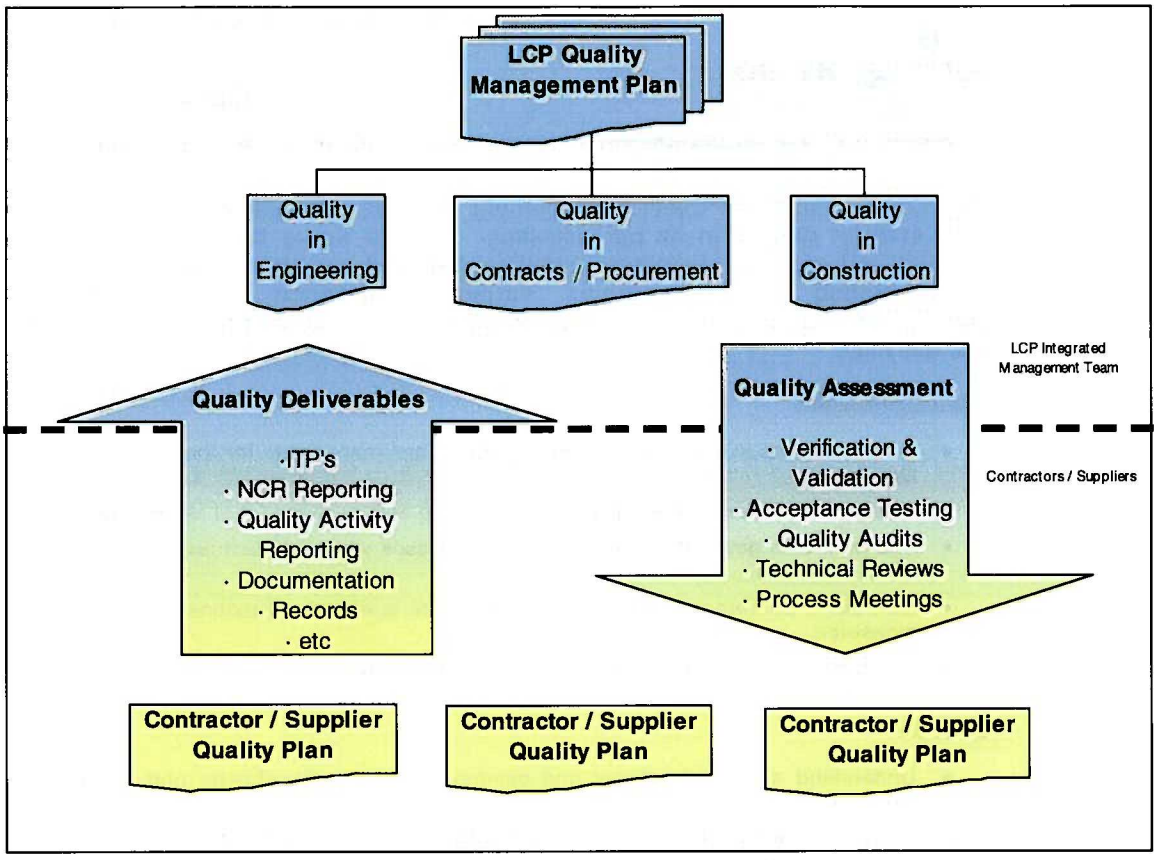

Figure 1 – LCP - Quality Management System

7.0 LCP Quality Policy

7.1 Quality Policy

The LCP Quality Policy is the guiding philosophy upon which this QMP and the QMP's of all Contractors, Suppliers and Consultants working on the LCP, is based. This policy and the goals embodied within it, outline management's commitment to maintaining a quality culture in our organization, in the organizations of our Contractors, Suppliers and Consultants, and in all project activities. It mandates the tangible demonstration of this commitment through compliance with the Quality Policy and by making continual improvement an integral part of activities. The LCP Quality Policy and the organizational quality goals addressed within serve as the framework for establishing functional and workscope related quality objectives.

HYDRO
THE POWER OF COMMITMENT

Lower Churchill Project

Quality Policy

The Lower Churchill Project Management Team is committed to maintaining a high level of Quality in all our activities. We will serve the needs of all our internal and external customers, stakeholders and our shareholder by tangibly demonstrating this commitment through compliance with our Quality Management System and by making continual improvement an integral part of our activities.

Our Philosophies

- All participants in the Lower Churchill Project are responsible for the achievement of Quality.
- Empowerment comes through strong leadership and involvement of all personnel.
- The project is governed by a system of processes which interact and influence each other's success.
- Consistent performance is achieved when work is effectively planned, executed and measured.
- Problems should be viewed systemically with focus on correction, not blame.

Our Goals

- Understand and meet internal and external customer, stakeholder and shareholder requirements.
- Provide the people, processes, resources and systems necessary to achieve success.
- Integrate effort and interact with other LCP management systems to systematically plan and execute work safely, with minimal negative effect upon the environment.
- Create a culture where all participants are empowered and entitled to contribute to continual improvement.

Our Commitments

- We will ensure that this Policy is known and understood by all members of the LCP team.
- We will lead by example and provide the opportunity for all personnel to be involved.
- We will create a culture in which people feel secure in addressing challenges and opportunities and which promotes creative and proactive improvement.
- We will apply lessons learned from past experiences as we plan our activities.
- We will recognize those individuals who proactively contribute to Quality Improvement.
- We will provide sufficient competent people to comply with this Policy.

This Policy Statement supports and complements the Newfoundland and Labrador Hydro Environmental Policy and Guiding Principles and the Lower Churchill Project Occupational Health & Safety Policy.

Endorsed by:

Vice-President Lower Churchill Project	Date	Project Manager Lower Churchill Project	Date	Quality Advisor Lower Churchill Project	Date
	2007 10 04	20 Aug 07.			2007 10 04

7.2 Quality Management Expectations

In addition to the high level quality philosophies, goals and commitments expressed in the Quality Policy, the following quality management expectations have been established for successful completion of all work associated with the LCP:

- Everyone on the project is responsible for some aspect of quality, including the quality of their own work, and indirectly the quality of the work of others.
- Effective quality management is essential to help align and integrate management plans which include systems (resources, procedures, processes, and tools) to achieve expected results.
- Contractors and Suppliers are accountable for the quality of their deliverables and for developing, implementing and continuously improving the processes by which those deliverables are produced. LCP will verify that Contractors and Suppliers perform work according to documented plans and procedures and produce deliverables that meet defined project requirements.
- Contractors and Suppliers must demonstrate that their QMP's and ultimately their QMS's are effective and capable of producing required deliverables for the LCP.
- LCP uses a preventive approach to quality management by proactively planning and integrating quality into all work processes.
- Functional specifications and technical documentation for inclusion into discrete contract packages must be of good quality and subject to minimal change. When change does occur it must be managed effectively through a change management process.
- All reasonable efforts should be made to detect quality problems at their source, before they cascade into downstream work processes.
- The level of assessment (audit, surveillance or inspection) conducted during the project should balance risk exposure and cost.

8.0 Quality Management Plan

8.1 Quality Management Principles

LCP's approach to quality management is structured upon the Plan-Do-Check-Act model of continual improvement and the eight management principles set out in ISO 9000 standards. These principles form the basis upon which LCP establishes and measures quality performance in all our activities and the activities of our Contractors, Suppliers and Consultants. The eight management principles on which this QMP is based are:

Customer Focus: Quality is measured through customer and stakeholder satisfaction. This can best be achieved by understanding current and future customer, stakeholder and shareholder needs and meeting or exceeding expectations.

Leadership: Management leads by example. Managers are responsible for demonstrating personal and organizational commitment to quality and creating an internal environment where people can become fully involved in meeting established objectives.

Involvement of People: Quality performance is the responsibility of every person working on the LCP. People are the essence of the project and their full involvement allows their abilities to be used for the project's benefit.

Process Approach: Results are achieved most effectively when activities and related resources are managed as a process. The output from one process may become the input for another process.

System Approach to Management: Management identifies and understands the various processes within the project and how they impact one another. Processes and their interfaces are managed as a system in order to contribute to effectiveness, efficiency and project goal alignment.

Continual Improvement: Continual improvement must be a permanent goal of the LCP. Problems and opportunities to improve are identified, investigated and actioned through systematic efforts.

Factual Approach to Decision Making: Effective decisions are made on the analysis of data and information.

Mutually Beneficial Supplier Relationships: By developing mutually beneficial relationships with Contractor, Suppliers and Consultants, the ability to create value and ensure stakeholder satisfaction is achieved.

8.2 Quality Planning

The LCP QMP is prepared by the quality function in consultation with LCPMT. This QMP defines the quality objectives for the project, along with the systems (resources, procedures, processes and tools) utilized to achieve these objectives. The QMP also establishes minimum quality assurance and quality control requirements for all functional groups of the LCPMT, along with all Contractors, Suppliers and Consultants. It also identifies quality support processes for the Engineering, Contracts / Procurement and Construction Management groups.

Quality Planning can also be envisioned through the LCP - Integrated Management System wherein functional management plans are identified and created for each LCPMT functional group that:

- defines roles, responsibilities, interactions (RACI charts)
- defines its core business by inputs, accountabilities and outputs
- lists the systems (resources, processes, procedures and tools)

Contractors / Suppliers working with the LCP must also plan for quality through the development of a QMP for their scope of work. The QMP's of Contractors / Suppliers must meet the requirements of this, the LCP QMP.

This QMP will be updated prior to each project phase and where functional managers identify new quality processes, procedures and tools necessary to facilitate the achievement of objectives for each functional group.

8.3 Audit / Assessment / Nonconformance

The word "**Assessment**" is used in the body of the text below for brevity; however, audit, measurement, evaluation, investigation, surveillance, etc. are all tools and components of an LCP "**Assessment**".

Assessments will be carried out by LCPMT or designated agents to ensure conformance to project requirements and overall effectiveness of the LCP QMS.

Contractors / Suppliers will have assessment programs in place as part of their QMP's. Assessments will be planned and scheduled in advance, including clear identification of

areas, processes or functions being audited. Contractors / Suppliers shall conduct audits in accordance with their own procedures. LCPMT may elect to participate in Contractor / Supplier audits or may request audits be conducted based on performance measurement findings, perceived problem areas and project risk.

All Contractors / Suppliers will provide Non-conformance Reports (NCR's) to LCPMT, upon request, when they are raised, including corrective & preventative actions and observations / opportunities for improvement. Contractors / Suppliers will keep NCR logs and provide these to LCPMT on a monthly basis. The logs will track key information including, but not limited to: NCR description, date of issue and close, area / function, originator and action status.

All audits performed by LCPMT will be in accordance with procedure **"LCP - Project Audit Procedure"**.

8.4 Control of Documents and Records

The development, issue, implementation and maintenance of documents required by the LCP will be controlled with respect to:

- approval by competent personnel prior to issue and implementation
- review, update, revision and re-approval as necessary
- revision levels and identification of changes
- availability of documents when needed
- documentation identification, including purpose and scope where applicable
- legibility and access

All documents, regardless of physical form or characteristics, maintained by LCP or Contractors / Suppliers as evidence of the results achieved or that provide evidence of activities performed are considered quality records.

Individual Contractors / Suppliers will be responsible for the preparation and maintenance of all quality documentation relating to the work they are conducting under their specific contract. Detailed examples of the quality documentation that must be compiled and turned over to LCPMT, will be outlined and developed during the detailed engineering phase of the project and included in individual contractural requirements.

8.5 Integration with Document Management Tool

In keeping with the IMS strategy that all functional management plans and all other components of the IMS need to be always accessible, accurate, reliable and timely across the LCP organization, the QMP will be integrated with the document management component of the electronic Information Management System.

The document management component will utilize a simple, "user friendly" web-based interface to access the electronic document repository, which will contain all LCP project procedures, documentation records and reports.

8.6 Quality Management Plan Implementation

Effective implementation of the QMS requires the commitment to, and application of the quality management policies and processes by all parties involved in the execution of the project. It is achieved by:

- Identification and acceptance of organizational interfaces, roles and responsibilities:
- Identification and acceptance of systems, tools and process ownership
- Involvement in process selection and development

- Selection of competent people
- Procedures and work instructions to guide activities
- Awareness sessions
- Specific training for process and system activities

8.7 Continuous Improvement & Lessons Learned

The process approach to developing, implementing, and approving the effectiveness of the QMS is envisioned through the "Plan-Do-Check-Act" model for continual improvement. This QMP is inherently based on continuous improvement.

Monitoring, measurement, analysis and improvement processes are planned and implemented to demonstrate conformity to requirements and continual improvement of the QMP. Continual improvement is achieved through:

- Ongoing assessment and verification of work
- Establishing and measuring achievement of objectives and KPI's
- Scheduled internal and sub-Contractor / Supplier assessments and audits
- Periodic reassessment of QMP's
- Corrective and preventative action
- Conducting milestone reviews and lessons learned
- Benchmarking and / or peer reviews
- Ongoing training
- Implementation of special improvement initiatives

As indicated in the document **"LCP - Lessons Learned Procedure"**, which describes the process of gathering, storing and disseminating learning's, lessons learned sessions will be scheduled between LCPMT and Contractors / Suppliers to share learning's.

8.8 Contractor and Supplier Responsibilities

Contractors, Suppliers and Consultants engaged on the project are obligated to demonstrate their ability to consistently provide the required levels of quality. Preferably, this would be achieved through an implemented QMS consistent with the principles of ISO 9001:2000 and identification of those areas of the system which will impact upon the successful completion of committed workscope for LCP. The availability of an acceptable QMS shall be evaluated during the bidding / selection phase.

Those Contractors, Suppliers and Consultants that do not have an acceptable, implemented QMS will be obligated to develop and implement detailed QMP's as described in **"LCP - Contractor Quality Plan Guidelines"**, which will identify relevant aspects of their internal processes which can impact upon the successful completion of committed workscope.

The **"LCP - Supplier Quality Assurance Strategy"** describes the LCPMT approach for determining the level of involvement and monitoring activity, from a quality assurance perspective, along with details of Contractor / Supplier contractual quality requirements.

8.9 Orientation & Training

LCP Contractors and Suppliers are responsible to ensure their respective personnel on the project understand the project quality requirements that affect them. This includes understanding:

- All applicable LCP Standards, Specifications and applicable procedures
- Contractor / Supplier standards, procedures and work instructions

- Codes and regulatory requirements

Contractors, through their QMP's will identify how orientation and training for quality will be implemented, including:

- identification of needs, which may be position specific
- development and delivery of training materials
- assessment of effectiveness / understanding

Project Management and supervisory personnel are responsible for identifying training needs of personnel within their group and ensuring that training is arranged and conducted in a timely manner. Classroom training, self-study and mentoring, or some combination, are all acceptable methods of training.

8.10 Measurement, Analysis and Improvement

Monitoring, measurement, analysis and improvement processes are planned and implemented to demonstrate conformity to requirements and continual improvement of the LCP QMS. Appropriate methods for reporting on the status of quality are identified and implemented in order to provide management with accurate information upon which to prioritize and plan.

LCP - Quality Performance Measurement and Reporting procedure defines the process for developing, implementing and reporting performance for quality, which will align with the goals for quality, as stated in the LCP Quality Policy.

A system of project quality management performance measures will be established and tracked for, at minimum, each major area;

- Power Generation
- High Voltage dc Specialties
- AC & DC Transmissions
- Cable Crossing

The quality function will establish quality performance measures and facilitate the performance measurement tracking and reporting process. LCPMT and Contractors for each major area will work collaboratively to determine the metrics to be tracked and the frequency. Some metrics that will be tracked across all project areas and others will be tracked for a specific area. The metrics selected to be tracked will evolve with the project. Contractors and Suppliers are responsible for collecting metrics information, consolidating, and providing Performance Measurement Reports and Leading / Lagging indicators, to LCPMT.

Once established, performance measures will be reported on a regular basis to the Quality Lead and subsequently the LCPMT.

8.11 Management Review

The LCPMT, along with the quality function, will meet to review and ensure that the QMS is functioning efficiently. Together they will analyze various performance ratings, evaluate its efficiency and look for opportunities to improve the system. If needed, the QMS will be modified along with quality policy and objectives, if required.

Management reviews will be carried out as stated in **"LCP - Management Review Procedure"**. This procedure defines the process for scheduling and carrying out management reviews of the LCP Integrated Management system.

9.0 Quality in Engineering

9.1 Overview

Engineering on the LCP will be conducted in accordance with the execution strategy described in "**LCP – Project Management Approach and Contracting Strategy (Post Gate 2)**" and will span from the start of Phase 3 through Phases 4A and 4B of the LCP Gateway Model.

The engineering specific scope of work consists of all engineering activities undertaken as part of the LCP. This includes, but is not limited to the following:

- all levels of engineering necessary to bid and carry out the contracts plan as defined in "**LCP – Supply Chain Management – Contract Package List**", which contains a complete listing of the anticipated contract packages associated with the LCP. In some cases this will require full detailed engineering and in other cases conceptual design / functional specifications.

- All levels of engineering carried out by Successful EPC Contractor (s) as part of EPC type contracts.

The LCP Engineering Deliverables Team will consist of a company lead, fully integrated engineering team responsible for all engineering specific services associated with the LCP. Also included within the LCPMT is a dedicated Technical and Design Integrity Team, assigned to perform the technical and design integrity role throughout the project. This team will interface with the engineering deliverables team to provide direction, information and consultation support; thus ensuring that all design and technical integrity requirements are being fulfilled.

To ensure that engineering design is clearly documented, is consistent with acceptable design standards and meets operating performance requirements, all engineering-specific accountabilities and responsibilities, systems (resources, processes, procedures and tools) in support of the Engineering Deliverables Team, are documented in the Engineering Deliverables Management Plan, within the LCP Integrated Management System. Additional quality engineering processes to be developed and implemented throughout the project are contained in Appendix 1 of this QMP.

9.2 Engineering Quality Roles & Responsibilities

LCP Engineering Deliverables Manager has the following quality roles and responsibilities:

- Ensuring that all engineering Consultants are qualified
- Ensuring that all engineering-specific, integrated management team members are qualified and approved
- Ensuring that all engineering processes are documented, approved and implemented
- Identifies and manages interfaces and ensures that the required information is moved across the interfaces and that the information is verified for approval, accuracy and completeness
- Ensuring that engineering quality control activities and systems are effective
- Coordinating the project's engineering quality control across the engineering function
- Provide the resources required to execute QC activities
- Reviewing all technical and engineering process audit reports and managing actions
- Ensuring orientation and training

LCP Technical & Design Integrity Manager has the following quality roles and responsibilities:

- Acceptance of all design criteria, design briefs and other technical documentation produced by engineering teams
- Organize and direct the activities of any design verification exercises by LCP and / or by a 3rd party
- Ensure lessons learned are captured and reflected in ongoing work as appropriate
- Identification of technical audits
- Coordination of expert peer review panels
- Interpreting technical standards and procedures
- Ensuring that all engineering deliverables fully address design and operational criteria and project requirements.

All LCP engineering Consultants / Contractors, both within the Integrated Engineering Deliverables Team and Successful EPC Contractors, have the following roles and responsibilities:

- Ensuring that 3rd parties performing engineering work within their scope meet the requirements established in this plan.
- Ensuring quality and technical accuracy of their work and any related engineering work performed by an 3rd Party (sub-Contractors, Fabricators, Suppliers, etc.) within their scope
- Ensuring that any Procurement / Contract requirements are addressed prior to entering procurement agreements with Suppliers, Fabricators, or Construction Contractors
- Any engineering sub-Contractors used within the engineering scope of work have a QMP that conforms to LCP requirements
- Assignment of a quality representative to address any quality issues that may arise during their scope of work
- Engineering change during the project is managed and the change management process is documented and approved
- All engineering processes conform to LCP requirements
- Adhering to documented processes.

9.3 Engineering Design & Development

All engineering-specific activities and work, for both LCP integrated engineering team and successful EPC Contractors, shall be carried out in accordance with accepted engineering practices and in a professional manner.

All engineering-specific activities shall have detailed and documented plans along with appropriate review and verification activities including design reviews, safety studies, etc. both internally and as appropriate on Contractors and critical sub-Contractors / Suppliers.

All engineering-specific activities and work shall follow a formal, documented, management plan. As a minimum the activities shall include:

- Design & Development Planning
- Design & Development Inputs / Outputs
- Design & Development Review
- Design & Development Verification
- Design & Development Validation
- Design & Development Changes

All engineering designs are subject to acceptance by LCP Technical and Design Integrity Team, to be assessed whether they meet project requirements.

9.3.1 Design Planning

Preliminary design planning is to be carried out in Phase 3 of the LCP Project Gateway Model, under the direction of the Engineering Deliverables Manager. Detailed procedures and standards, to allow for systematic engineering development, will be generated / adopted.

The planning process will identify the inputs required; the tools and techniques required to process the work and the expertise required to plan and develop the engineering deliverables. The procedures and standards captured within the Engineering Deliverables Functional Management Plan will define the details of how this will be accomplished.

The planning and scheduling of engineering activities and communication of agreed to schedules is carried out in conjunction with the LCP Project Controls group who are responsible for the integration of all schedules on the project. To facilitate this planning and scheduling, Contractors shall deliver the information to the controls group in the required project format.

9.3.2 Design Inputs / Outputs

The document "**LCP – Basis of Design**", along with other technical documents provides the overarching project definition that will be used as the primary design input into the detailed engineering. However, development of additional studies, not identified in the design basis may cause some revisions to the design concepts and scope. In addition, regulations, codes and standards may also specify additional input.

Other inputs to the design may come from appropriate recommendations from reviews, VIP's and other design reviews will be treated as further inputs to the design process.

Design inputs shall be reviewed and verified complete prior to commencement of engineering work. Appropriate reviews of the design inputs shall be made and documented to provide verification that the inputs are appropriate.

Design outputs are the documented designs, drawings and information required for procuring, producing or providing equipment, materials or services. Design outputs primarily consist of, but not limited to the following:

- Design Briefs and Philosophies
- Study Reports
- Engineering Design Specification Reports
- Engineering Specifications
- Engineering Data Sheets
- Engineering Drawings
- Equipment Criticality Ratings
- Engineering Requisitions
- Inspection and Test Requirements
- Construction Bid Packages
- Construction Work Packs
- Commissioning Procedure

Project procedures and standards are to be developed to ensure that design outputs are in accordance with the project requirements. These procedures shall define controls in checking, methodology, formatting approval and issue.

The Engineering Deliverables Manager, in conjunction with the Technical and Design Integrity Manager shall ensure that design outputs meet the following minimum requirements:

- Specified inputs have been reviewed and the reviews are documented
- Compliance with specifications that are essential for the safe and proper function of the facilities
- Specified acceptance criteria
- Appropriate checking, review and approval of design outputs

9.3.3 Design Review

A design review is a documented, comprehensive and systematic examination of a design to evaluate its capability to fulfill the requirements for quality, identify problems and propose the development of solutions. Procedures to establish the timing, scope and process of conducting and reporting on design reviews will be developed. Formal reviews to be planned including, but not limited to:

- Preliminary HAZID, carried out during the design basis development phase
- Intermediate HAZOP review conducted early in the engineering phase of the project
- Value Engineering Reviews
- Expert Panel Reviews
- Other reviews such as Equipment Criticality, Constructability, etc.

Other informal technical reviews such as inter-discipline reviews, technical audits / assessments shall be carried out at strategic points in the design process as determined by the Engineering Deliverables / Technical and Design Integrity Manager(s).

9.3.4 Design Verification

Design verification is confirmation by examination and provision of objective evidence that all required design inputs have been addressed and satisfactorily incorporated into the design outputs. The design verification methods include:

- Performing alternative or simplified calculations or analyses
- Independent checking of all design outputs prior to issue
- Reviewing design stage documents via inter-discipline coordination or other methods
- Dimensional or material checks
- Qualification tests or demonstrations
- Comparing with a similar proven design or design practice if available.

A qualified individual other than the originator of the design most effectively performs design verification. The Engineering Deliverables Manager, along with the quality function will ensure that all engineering Contractors / Suppliers have documented procedures and processes for effectively checking design outputs and completing inter-discipline reviews.

All engineering deliverables shall be appropriately identified in accordance with standards. Approval of deliverables shall be in accordance with project requirements.

9.3.5 Design Validation

Design validation is the process of checking that the final product will be capable of meeting or does meet the defined user needs. Design validation activities will be performed during the project.

Software programs used in the performance of engineering design shall be tested and validated for performance prior to approval for use. Persons using the approved software shall be confirmed as competent before performing engineering work. Checkers shall be approved on the relevant software. Records of these validations shall be maintained as project quality records.

9.3.6 Design Change

Engineering design changes occur at every stage of the design process, from the stage at which the project deliverables are defined, to when the engineering deliverable or final project is proven fit for delivery, commissioned and operated. How design changes are documented, communicated, planned and implemented is essential and important.

Consistent with the LCP Management of Change philosophy, design changes will follow a formal management of change process where all changes are recorded along with associated impacts, risks and proper authorization for implementation, as identified in "**LCP – Project Change Management Procedure**". The engineering design change process will be developed and stewarded by the Engineering Deliverables Manager, in conjunction with the Technical & Design Integrity Manager.

The Engineering Deliverables Manager shall be responsible for verifying that the potential impacts and benefits of design changes are investigated in accordance with project risk management procedures, by qualified persons in the organization and that appropriate reviews of all design changes have been obtained and documented. The Technical and Design Integrity Manager shall review all design changes. The Project Controls group will ensure that all affected work groups are notified.

9.4 Engineering Records

Typical quality engineering records include:

- Engineering discipline review and signoff records
- Performance of technical audits on design identified as critical to project engineering work
- Interface logs showing closure of actions on request for information
- All Technical Deviation Notices (TDN) whether approved or not and the TDN log
- All HAZOP report logs
- Lists of approved checkers
- Evidence of checks performed on issued Construction Work Packages
- Engineering quality audit reports with follow-up documentation showing closure of findings
- Engineering and procurement NCR's including logs that verify closure
- Evidence of corrective actions associated with NCR's

- Engineering and procurement rework statistics and logs
- Engineering approved quality audit schedules
- Project orientation records

10.0 Quality in Procurement / Contracts

10.1 Overview

Procurement and Contract Management on the LCP will be conducted in accordance with the execution strategy described in "**LCP – Project Management Approach and Contracting Strategy (Post Gate 2)**" and will span from the start of Phase 3 through Phases 4A and 4B of the LCP Project Gateway Model. In conjunction with the management approach and contracting strategy is a draft Contracting Plan, which contains a listing of the anticipated contract packages along with proposed contracting strategy and planned tender dates for each contract, as documented in "**LCP – Supply Chain Management – Contract Package List**".

The LCP Integrated Procurement / Contract Management Team will consist of a company lead, fully integrated management team responsible for all procurement and contract management specific services and scopes of work. All procurement / contract management accountabilities and responsibilities, resources, processes, procedures and tools, in support of the Procurement / Contracts Group, are documented in the Commercial Services Management Plan, within the LCP Integrated Management System. All Procurement / Contracts quality processes to be developed and implemented for the LCP are contained in Appendix 1 of this "QMP".

10.2 Quality Roles and Responsibilities

In conjunction with the Procurement / Contracts group, the LCP quality function shall maintain an adequate supplier quality management program that includes initial assessments of selected supplier's QMS as well as the ongoing surveillance of the performance. This includes but not limited to:

- review pre-qualification questionnaires
- develop and implement procurement / contract quality requirements
- reviewing Contractor / Supplier procedures and documentation
- perform quality assessments at Contractor / Supplier facilities
- ensure that all equipment and materials procured are consistent with the engineering design and contract requirements.

The selection criteria for Contractors / Suppliers and vendors shall include but not limited to an assessment of the performance of their QMS including performance improvement of their processes. Identified deficiencies of shortcomings in their QMS, as it relates to meeting LCP quality requirements, shall be assessed for risk to the project.

10.3 Contractor / Supplier Quality Requirements

The following general requirements are applicable. All Contractors / Suppliers:

- are accountable for implementing an effective QMS to meet the LCP project requirements. LCP requirements are specified through Purchase Orders, Work Authorizations, LCP specifications and specific QA/QC requirements.
- shall demonstrate that the QMS is capable of detecting defects
- shall be responsible for their sub-Suppliers QMS development and implementation.
- shall be responsible to ensure that they are working to applicable LCP technical standards and QA/QC requirements.

- will be in compliance with LCP performance management and auditing requirements
- are responsible to develop ITP's describing major and minor quality milestones. The ITP's will be reviewed and approved by LCPMT.
- shall be responsible for employing qualified people to meet the LCP project requirements.

10.5 Evaluation of Contractors / Suppliers

Prior to commencing work and during execution of work all Contractors and Suppliers associated with the LCP shall provide documented evidence that their QMS's are capable of ensuring that all goods and services be provided to an acceptable level of quality and that they are capable of meeting or exceeding all LCP requirements.

LCP's expectation is that all Contractors, Suppliers and their sub-Contractors and sub-Suppliers will have established a QMS or develop and implement QMP.

10.6 Verification of Purchased Product

The Quality function for the LCP will establish and implement inspection or other verification activities necessary for ensuring that purchased products and services meet specified purchase or contract requirements.

Where LCPMT or its representatives intend to perform verification at the supplier's or the sub-suppliers premises, LCPMT will inform the supplier of the intention to do so allowing sufficient time for preparation and accommodation. Information and specific details with respect to verification activities will be discussed and mutually agreed with the supplier and/or sub-supplier.

11.0 Quality in Construction

The construction management portion of this QMP is to be developed at a later date.

12.0 Reporting Quality Metrics

The Quality Lead will develop requirements for reporting on the status of quality for the LCP. As described in **"LCP – Quality Performance Measurement and Reporting"**, the procedure will define the process for developing, implementing and reporting performance on quality by LCPMT and all Contractors / Suppliers, which will align with project goals for quality, as described in the LCP Quality Management Policy.

Quality metrics will be developed, tracked and reported for the LCP.

13.0 Quality Co-ordination Procedure

All Contractor and Supplier specific quality requirements, applicable processes, roles and responsibilities established for the LCP have been identified in **"LCP – Contractor Quality Coordination Procedure"**.

By meeting or exceeding these requirements, Contractors will provide assurance that the work conducted will conform to job specifications, regulatory requirements and sound and generally accepted engineering and construction practices. Quality management is applicable to all work activities of Contractors so as to ensure continuing capability to provide the required levels of quality and to contribute to continual improvement.

14.0 Appendices

Appendix 1 – "Quality Management Activity Table"

Appendix 1 – "Quality Management Activity Table"

LCP - Quality Management
Functional Activity Table

Doc. Number	Rev.	Document Title
A. ADMINISTRATION		
A1 ROLES / RERSPONSIBILITIES		
		Quality Organizational Manual
		LCP - LACTI
A2 TOOLS / REGISTERS		
		LCP - Internal / External Audit Schedule
		LCP - NCR Database
		LCP - Lessons Learned Database
		LCP - Quality Orientation and Training Database
		LCP - Corrective / Preventive Action Database
B. QUALITY MANAGEMENT		
B1 GENERAL		
MSD-QM-001	B1	LCP - Quality Policy
MSD-QM-002	B1	LCP - Quality Management Strategy
MSD-QM-020	00	LCP - Project Quality Plan
MSD-QM-027	A1	LCP - Management Review Procedure
B2 ASSESSMENT / AUDIT & INSPECTION		
MSD-QM-006	A1	LCP - HSEQ Card
MSD-QM-007	A1	LCP - HSEQ Action Procedure (Nonconformance and Opportunity Process)
MSD-QM-011	A2	LCP - Corrective and Preventive Action Procedure
FRM-QM-005	A1	LCP - Corrective and Preventive Action Form
MSD-QM-024	A2	LCP - Internal Assessment / Audit Procedure
FRM-QM-002	A1	LCP - Internal Assessment / Audit Report Form
FRM-QM-003	A1	LCP - Internal Assessment / Audit Notification Form
FRM-QM-012	A1	LCP - Inspection and Test Plan Form
B3 PERMITS		
	000	LCP - Consents and License Register
	000	LCP - Regulatory Compliance
B4 LESSONS LEARNED		
MSD-QM-005	B1	LCP - Lessons Learned Procedure
FRM-QM-001	B1	LCP - Lessons Learned Form
	000	LCP - Lessons Learned Database
C. QUALITY IN ENGINEERING		
C1 GENERAL		
	000	LCP - Engineering Reviews
	000	LCP - Communication and Reporting Process
	000	LCP - Document and Quality record Management Process
	000	LCP - Quality orientation, Training and Teambuilding
	000	LCP - Root Cause Analysis Process
D. QUALITY IN CONTRACTS / PROCUREMENT		
D1 GENERAL		
MSD-QM-030	A1	LCP - Contractor Quality Co-ordination Procedure
MSD-QM-014	A1	LCP - Contractor Quality Plan Guidelines
MSD-QM-015	A1	LCP - Contractor Inspection and Test Plan Guidelines
MSD-QM-021	A1	LCP - Supplier Evaluation, Review and Audit Procedure
FRM-QM-010	B1	LCP - Quality Assurance Evaluation Questionnaire (Contracting Process)
FRM-QM-013	A1	LCP - Materials and Equipment Preliminary Risk Assessment Form
FRM-QM-023	B1	LCP - EOI Assessment Subcontractor Questionnaire Procedure
MSD-QM-009	A1	LCP - Control of Nonconforming Product Flow
E. QUALITY IN CONSTRUCTION		
E1 GENERAL		
TO BE DEVELOPED		

INFORMATION QUESTIONNAIRE

Table of Contents

1.0 Introduction....3

2.0 General Instructions....3

3.0 Profile and Vision....3

4.0 Health, Safety, Environment and Quality Management....4

5.0 Familiarity with Canadian Regulations....4

6.0 Planning and Scheduling....5

7.0 Estimating and Cost....5

8.0 Progress Measurement....6

9.0 Supply Chain Management....6

10.0 Relevant Experience of Personnel....7

11.0 Previous Technical Experience....7

12.0 Engineering Systems and Models....8

13.0 Information Management....8

14.0 Human Resource Planning....9

15.0 Training, Development and Competency Assessment....9

16.0 Employment Terms and Conditions....10

1.0 Introduction

The purpose of this Information Questionnaire is to allow Company to gain a greater understanding of your organization and to ensure the same relevant information is received from each Proponent.

2.0 General Instructions

2.1 All sections of the questionnaire must be completed as the questionnaire as a whole is designed to provide the Company with a profile of your organization.

2.2 You are requested to keep your responses concise.

2.3 If a document is submitted in support of a response, it shall be clearly referenced in the text and attached as an appendix.

2.4 Company will not bear any responsibility if a Proponent does not provide sufficient or timely response to the questionnaire.

2.5 Questionnaire responses shall be presented in the same order, numbering system and format as presented in the questionnaire.

2.6 Some of the information requested in this questionnaire might be repetitive to information requested in other attachments to this Expression of Interest. It is important that your response to this questionnaire be complete, therefore, if necessary, we ask that you repeat any such information.

2.7 Do not include manuals and procedures with your questionnaire responses unless specifically requested.

2.8 Company may conduct site visits following the review of the submission in connection with this questionnaire to validate and / or expand on answers provided herein and may request documented evidence at this stage for validation purposes.

3.0 Profile and Vision

3.1 Please provide the following information (in the case of a Joint Venture or Partnership, the following information shall be provided for the Joint Venture as a whole and for each partner in the Joint Venture):

i) Name of company or Joint Venture
ii) Address (principal office and other relevant offices)
iii) Telephone Number
iv) Fax Number
v) Registered Address
vi) Date established
vii) Company or Joint Venture principal business
viii) Names and positions of directors and other key personnel
ix) Name and registered address of parent company and/or ultimate holding company
x) Name of subsidiary or associated holding companies

3.2 Provide the following details in the case of a joint venture or partnership:

i) A copy of the Joint Venture / Partnership Agreement
ii) A statement of the share equity of each participant
iii) The lead participant within the Joint Venture
iv) Outline how the joint venture will be managed with regards to objectives, decisions, resolution, investment, share of profit, etc.
v) How are the visions/key business objectives of each participant reflected in the Joint Venture (where required)
vi) The share and nature of the work provided by each participant
vii) Arrangements for the transfer of systems/information technology etc. to the joint venture, where required,
viii) How do the participants envisage the joint venture developing in the long-term?

3.3 If proposing a joint venture, detail how you will optimize/merge the different participant organizational cultures to ensure the greatest benefits are realized for the Company.

3.4 If proposing a Joint Venture, provide a copy of your organizational structure showing all members of the Joint Venture. If not a Joint Venture, please detail the organizational structure of your company, including its place within any relevant “Group of Companies”.

3.5 Provide a copy of the overall management organization structure and describe the management organization within your office that would support the Company.

3.6 State the job title of the senior representative who would act as the ultimate sponsor for this Agreement. Include his/her resume and brief details of their authority/autonomy and all other duties for which they will be responsible.

3.7 Name and state the job title of the person who would act as the overall Contract Manager for this Agreement. Provide a copy of his/her resume and brief details of his/her authority/autonomy and all other duties and contracts for which he/she may be responsible. Presumably, the Contract Manager would report directly to the senior representative identified in 3.6. Please confirm.

3.8 If the person(s) above were not available, who would be the designated alternate? Provide a copy of his/her resume and brief details of his/her authority/autonomy and all other duties and contracts for which he/she may be responsible.

3.9 If your proposed organization is not currently operating at the level required to support the Engineering Design and Project Support Agreement, please provide an overview of your company’s start-up requirements including timing, resource compliment, logistics, and implementation plan.

4.0 Health, Safety, Environment and Quality Management

4.1 To evaluate and assess a Proponent’s approach to Health, Safety, Environment and Quality Management, Proponent must complete the Health, Safety, Environment Management Questionnaire and Quality Management Questionnaire located elsewhere in this Expression of Interest.

5.0 Familiarity with Canadian Regulations

5.1 Does your company use a system to identify and review regulatory requirements, applicable codes and standards?

5.2 Does this system address evolving regulatory issues, industry codes and standards? How is it ensured that the latest Canadian, Newfoundland and Labrador regulatory issues, industry codes and standards are complied with?

5.3 Describe your company's experience with and familiarity with Canadian and Newfoundland and Labrador regulations?

5.4 What processes does your company have in place to ensure all employees are knowledgeable of and comply with Canadian and Newfoundland and Labrador regulations?

5.5 What technical codes and standards does your company apply to its work? Please list.

5.6 Identify how your company would comply with current Newfoundland and Labrador Regulations and standards/codes?

6.0 Planning and Scheduling

6.1 Describe the planning and scheduling system used by your organization.

6.2 How long have you used this planning and scheduling system?

6.3 Has this planning system been audited? If yes, provide details.

6.4 Detail how you schedule engineering personnel.

6.5 What performance measurement and target levels does your organization strive towards with respect to planning and scheduling?

6.6 What is the frequency of updating and reviewing your schedules?

6.7 How are changes managed in your schedules?

7.0 Estimating and Cost

7.1 Describe the system for estimating human resource-hours and costs used by your organization.

7.2 How long has your organization used this estimating system?

7.3 Has this estimating system been audited? If yes, provide details.

7.4 How are estimates compiled for typical jobs? Provide examples.

7.5 How frequently are the estimating standards updated and what is the basis for updating?

7.6 Describe the cost control system your organization currently uses.

7.7 How long has your organization used this cost control system?

7.8 Has this cost control system been audited? If yes, provide details

7.9 What are the interfaces between your cost control system, other project management tools and accounting systems?

7.10 Describe the process for establishing budgets and developing final forecast costs.

7.11 What are your company's definitions of Committed, Incurred and Invoiced costs?

7.12 Who is responsible for ensuring the accuracy of the cost data?

7.13 How are changes managed in the cost control system?

8.0 Progress Measurement

8.1 Describe the progress measurement system your organization currently uses.

8.2 How long has your organization used this progress measurement system?

8.3 Has this progress measurement system been audited? If yes, provide details.

8.4 What information does this system track?

8.5 How does your organization use this information?

8.6 How do you account for lost time?

8.7 How do you track home-office versus construction site time for a worker?

8.8 How do you measure earned value?

8.9 How do you measure productivity and performance?

8.10 What performance measurement and target levels does your organization strive towards with respect to productivity?

8.11 Provide an example to demonstrate how your organization has used measures to improve productivity.

8.12 Please describe the efficiency of your progress measurement system including the level of automation and resource requirements.

8.13 How are actual hours accumulated?

9.0 Supply Chain Management

9.1 Provide a list of Processes and/or Procedure Documents (titles only) that your company would use to perform any subcontract, procurement and materials management activities if included in the Scope of Work. Company may request copies of the said documents prior to or at Contract award.

9.2 Identify the total resources that your Company would have available to support the proposed contract, procurement and materials management activities. Identify key resources that would be available for this project and provide resumes.

9.3 Does your company have an Integrated Materials Management system to manage all procurement activities? If so, please provide an overview of this system.

9.4 Describe the process used to identify and qualify vendors and subcontractors for inclusion in any bid lists for supply of services and work.

9.5 Describe your experience with managing industrial benefit requirements of a project including experience with aboriginal groups.

9.6 Describe your company experience with managing a marshalling yard.

10.0 Relevant Experience of Personnel

10.1 Detail the personnel, qualifications and relevant experience for Major Civil Projects or Hydroelectric or Transmission Projects your organization possesses.

10.2 Company would like to understand the depth of resources offered by Proponent. Proponent will provide a list of personnel to be engaged in the execution of the Scope of Work. Please confirm whether proposed candidates are already employed by Proponent, and their willingness to relocate to St. John's, Newfoundland. (if required)

10.3 For each of the key roles identified in the section entitled "Key Personnel" attached hereto, please provide up-to-date resumes for the personnel whom you intend to assign to any subsequent Agreement.

10.4 What are your current staffing levels at your primary location(s) for providing services? Please indicate how much of your current staffing levels are committed to other projects. Are your present employees prepared to relocate to St. John's, Newfoundland to complete the Scope of Work (if required)? What percentage of the requirements would be staffed by local resources?

10.5 List any services associated with the Scope of Work that would be sub-contracted out to other contractors and, where appropriate, name the nominated sub-contractor(s). The list of subcontractors will form a part of the Corporate Organization, Data and Financial Statement (Article 4.0)

10.6 How will your company manage resources between the principle place of business and our Newfoundland Project Office (if applicable)?

10.7 Is your company under consideration for other work at this time that could impact on your ability to supply the above resources?

10.8 Describe any personnel recruitment requirements you anticipate supporting this Agreement. Provide an estimated time line necessary to fulfill the resource compliment required to support this Agreement.

11.0 Previous Technical Experience

11.1 Please detail at least two Civil or Hydroelectric Projects with associated power transmission that your organization has been involved with and describe the role of your organization with respect to the execution of these projects. In particular, address the following areas:

A. General:

i) Name of contract and location
ii) Services provided
iii) Description of work
iv) Type of facilities, i.e., Hydroelectric, Civil Construction, Power Transmission, Subsea Cable Installation, Converter Station Construction, etc.
v) Human resource levels
vi) Name of client
vii) Value of contract and duration
viii) Project Manager for the Contract

B. Success Criteria:

i) Scheduled Project Completion: Were these referenced projects delivered within the schedule expectations.
ii) Budgeted Value: Were these projects completed within the proposed cost references.
iii) Quality: Were there any quality concerns associated with the referenced projects.
iv) Describe the Project Delivery Model applied to the referenced projects and how the method selected contributed to the project outcome.

12.0 Engineering Systems and Models

Please outline and describe the computer engineering programs your organization used during the support of the projects discussed above. Describe the experience your organization has had with the computer engineering programs.

13.0 Information Management

It is the intent that the Project team will work to standard processes utilizing centralized tools for information creation/capture, management and access. The following questions are intended to ascertain how you typically work within your current environment in an effort to more fully understand the implications of such a strategy.

13.1 List and briefly describe your Information Management related processes for information creation/capture, management and access.
13.2 Describe the following Information Technology components currently in use in your local environment:
- Hardware Standards (servers and workstation)
- Network (LAN/WAN)
- Operating Systems
- System / application Systems

13.3 Describe the primary applications (application names, versions) that would be used for the delivery of engineering and support services.
13.4 Describe the primary applications you typically use to support project management functions. (eg. Cost, Scheduling, Procurement and Materials Management, Document Control, etc.).

13.5 List IM support expertise currently in-house.

13.6 Please include an organization chart showing Information Management related positions within your organization. (eg. Data Management, Document Management, Records Management, IT, etc.)

14.0 Human Resource Planning

14.1 What is the job title of the person responsible for human resource planning in your organization?

14.2 What is your system for assessing human resource demand?

14.3 What is your system for assessing internal human resource supply?

14.4 How do you assess external human resource supply?

14.5 How do you manage fluctuating human resource needs? Specifically, how do you manage work load to accommodate:

i) planned activities
ii) unplanned activities
iii) unplanned downward/upward spikes
iv) lack of expertise or technical resources

14.6 How do you plan for and manage staff turnover to maintain an appropriate human resource supply base?

14.7 Who would be your point of contact for ad hoc requirements and what would be the average turnaround time for supply of personnel?

14.8 In which areas do you anticipate difficulty in supplying personnel from the market place? Discuss how you plan to address the identified supply / demand gaps in the market place.

15.0 Training, Development and Competency Assessment

15.1 Do you have a formal training plan? If yes, please provide a copy of this plan, indicate when it was developed, distinguish between mandatory / regulatory training and other training and include information around any modifications that have been made (or are anticipated) and how this training plan is implemented.

15.2 Who designs your training program(s)?

15.3 Who is responsible for training scheduling and coordination?

15.4 How do you track and monitor training? Include specific information about information systems used to support tracking and monitoring.

15.5 Do you have a competency assessment policy and program? If yes, please provide a copy.

15.6 What documentation is maintained in support of any competency assessments performed?

15.7 What experience does your company have in training Aboriginal peoples?

16.0 Employment Terms and Conditions

16.1 Provide an overview of your general employment policies (Table of Contents).

16.2 Do you have an employee handbook? If yes, please provide a copy.

16.3 What benefits do your employees receive in addition to salary?

16.4 How do you set and monitor your salary rates? How frequently are these reviewed

16.5 How many pay ranges do you have and what are the classifications in those pay ranges?

16.6 How do employees progress through these ranges? Provide a copy of your compensation policy and procedures.

16.7 How do you maintain internal and external equity with respect to compensation?

16.8 When do you make pay adjustments (i.e. annually, semi-annually, etc.)?

16.9 How do you communicate your rules of conduct to employees?

16.10 What is your discipline policy / procedure and record?

16.11 What is your policy on termination and redundancy?

16.12 Do you have a Harassment Free Workplace policy or a Respectful Workplace Environment policy? If yes, please detail.

16.13 Do you have a Family Support / Employee Assistance Program? If yes, please detail.

16.14 Will your systems allow for adequate auditing and verification of remuneration and benefit packages for employees? Has your system been audited? If yes, provide information on when it was last audited and the outcome of the audit.

16.15 How do you manage multiple terms and conditions for multiple facilities?

16.16 What are your relocation policies for personnel that are required to relocate for a project assignment?

EXECUTION PROPOSAL

EXECUTION PROPOSAL

Table of Contents

1.0 Execution Proposal - General 3

2.0 Organization 3

3.0 Resource Requirements 3

4.0 Key Personnel 3

5.0 Project Initiation & Staffing 3

6.0 Specialist Personnel 3

7.0 Working within the Project Management Team 3

8.0 Health, Safety and Environment 3

9.0 Specialist Software 4

10.0 Alternate Proposal 4

1.0 Execution Proposal - General

Consultant shall submit an Execution Proposal for each of Scopes of Work A, B or C as described in the Scope of Work and Technical Attachments, and / or any alternative project delivery methods, complete with the rationale for the proposed project delivery method and advantages that the proposed delivery method provides as compared to the Company led integrated project management team model described in the “Scope of Work” section of this EOI for which it intends submitting a proposal. As a minimum, the Execution Proposal should address, for each Scope of Work, the items noted below.

2.0 Organization

Consultant shall provide the proposed organization structure, including chart(s), it intends to establish to execute the Scope of Work. The submission shall indicate any relationship with JV partners and / or sub-contractors, if applicable, and shall provide the details of the organization that will be established in Company’s St. John’s office.

3.0 Resource Requirements

For Scopes of Work A, B and C as described in the Scope of Work and Technical Attachments, Consultant will provide, as part of its proposal in response to this Expression of Interest Response, its estimate of engineering-specific personnel requirements for Phase 3 as well as for Phase 4.

4.0 Key Personnel

With respect to key personnel, Consultant’s submission requirements as part of its response to this Expression of Interest are included in the section entitled Key Personnel.

5.0 Project Initiation & Staffing

Consultant shall describe how it intends to mobilize its resources and its plan and schedule for staffing Phase 3 and Phase 4.

6.0 Specialist Personnel

It is recognized that selected specialist personnel, as identified in Key Personnel, will likely not be assigned to the Lower Churchill Project on a full time basis and, accordingly, may not work out of the St. John’s, Newfoundland and Labrador office. Consultant will provide details as to how the specialist personnel will work within Consultant’s team.

7.0 Working within the Project Management Team

Consultant shall describe how it foresees executing its scope working within the Lower Churchill Project team model described in the Scope of Work and Technical Attachments.

8.0 Health, Safety and Environment

Consultant will identify its approach to HSE performance relative to the Scope of Work, safety in design and its overall accountability for HSE.

9.0 Specialist Software

Consultant shall describe details of specialist software it proposes to employ in the execution of the Work.

10.0 Alternate Proposal

If applicable the Consultant will provide details of any alternative proposal and planned execution plan. The alternative proposal or alternative project delivery method shall clearly indicate the advantages of the proposed alternative delivery method in terms of overall cost savings, schedule improvements, risk management, enhanced financing and any other relevant measure.

KEY PERSONNEL

KEY PERSONNEL

The table below contains a listing of anticipated key roles for each of Scope of Work A, B and C and D. These personnel are considered critical to the execution of and overall success of the Lower Churchill Project.

The qualifications and availability of the identified personnel will be a major contributing factor in the evaluation process.

Engineering Design and Project Support Consultant shall submit the names and resumes of the individuals proposed to fulfill the listed key roles as part of its response to this Expression of Interest.

As part of its response to this Expression of Interest, Engineering Design and Project Support Consultant may propose variations to the list of key roles provided herein.

Additional key roles may be identified during the performance of the Work and may be added to the table.

If the Consultant, proposes an alternative project delivery method the Consultant will provide the names and resumes of the key personnel to support that alternative, and the associated organization chart.

Scope of Work A: Provision of engineering-specific services for Gull Island Hydroelectric Development.

Key Roles

Position	Name
Project Sponsor	
Engineering Manager	
Civil Engineering Lead - General	
Civil Engineering Lead - Geotechnical	
Civil Engineering Lead – Hydrotechnical	
Civil Engineering Lead - Structural	
Civil Engineering Lead - Environmental	
Electrical Engineering Lead – General	
Electrical Engineering Lead – Power Generation	
Electrical Engineering Lead – Control Systems	
Electrical Engineering Lead – Instrumentation	
Electrical Engineering Lead – Protection & Controls	
Electro-Mechanical Engineering Lead (Turbine & Generator)	
Mechanical Engineering Lead – General	
Communications Engineering Lead (telecommunications)	
Civil Engineering Lead – Main Dam & Cofferdams	
Technical Specialists	

Scope of Work B: Provision of engineering-specific services for High Voltage Direct Current Transmission Specialties.

Key Roles

Position	Name
Project Sponsor	
Engineering Manager	
HVDC System Integration Engineering Lead	
Electrical Engineering Lead – Submarine Cables	
Electrical Engineering Lead – Power Systems	
Sr. Electrical Engineer – Electrode	
Marine Operations Lead	
Sr. Subsea Engineer	
Converter Stations / Switchyard Lead	
Sr. Tunnelling Engineer	
Technical Specialists	

Scope of Work C: Provision of engineering-specific services for High Voltage Overhead Transmission Lines.

Key Roles

Position	Name
Project Sponsor	
Engineering Manager	
Civil Engineering Lead – Towers & Foundations	
Civil Engineering Lead – Geotechnical	
Transmission Lines Engineering Lead	
Surveying Engineering Lead	
Civil Engineering Lead – Environmental	
Sr. Materials Engineer	
Technical Specialists	

Scope of Work D: Provision of Support Personnel.

Key Roles

Position	Name
General Construction Manager	
Construction Manager Gull Island Site	
Construction Manager – HVdc Transmission Specialties	
Construction Manager – Overland Transmission	
Sr. Contracts Coordinator	
Sr. Logistics Coordinator	
Materials Control Lead	
Procurement Supervisor	
Senior Cost Engineer	
Senior Estimator	
Senior Planner / Scheduler	
Senior Quantity Surveyor	
Senior Civil Field Engineer(s)	
Senior Accountant	
Senior Accounts Payable Supervisor	