

Boundless Energy



REQUEST FOR PROPOSAL (RFP) NO. LC-G-002

Engineering, Procurement and Construction Management (EPCM)
Services

Date: 9-Jul-10



RFP No. LC-G-002

ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT SERVICES

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GENERAL INFORMATION FOR PROPONENTS**0.0.1.0 INTRODUCTION****0.0.1.1 General**

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

You are hereby invited to submit a Proposal for the provision of Engineering, Procurement, Construction Management (EPCM) Services, and other project management services for one or more of the discrete physical Components which comprise the Lower Churchill Project (LCP), as detailed in this Request for Proposal:

Part 1

General Information and Instructions to Proponents
Section 0.0 General Information for Proponents
Section 0.1 Instructions to Proponents
Section 0.2 Instructions to Proponents – Attachments
Section 0.3 Instructions to Proponents – Proposal Forms (Part A – Form of Proposal)
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Section 0.5 Instructions to Proponents – Part C – Technical Proposal Questionnaire

Part 2

Agreement (including Exhibits 1-11)

The Commercial Proposal Forms in Part 1, Section 0.4 must be completed and submitted as part of the Proposal. That Section contains all Proposal Forms necessary for Proponent to present its Commercial Proposal. In presenting the information required by that Section, Proponent shall be responsible for reviewing and understanding all elements of the RFP.

The forms included in Section 0.4 will be used to:

1. Provide a provisional estimated cost of Services at the discrete physical Component level,
2. Evaluate the monetary value of the Services through cost analysis and efficiency reviews based on the submitted rates,
3. Where applicable, form the rate basis of Part 2, Exhibit 4,
4. If applicable, aid in the negotiation of any applicable performance incentive program.

The Technical Proposal Questionnaire in Part 1, Section 0.5 must be completed and submitted as part of the Proposal. It will be used to evaluate the Technical Proposal and where applicable will form part of the Agreement. Part 2, Exhibit 3 describes the Scope of Services which will form the basis for the Agreement and will assist Proponent in preparing its Proposal.

As described in Section 0.0.1.3 herein, four (4) initial development options for the LCP are being considered by Company. Company stresses that the details of the noted Components as well as the LCP development options presented herein are indicative only, and that further Project definition activity is being carried out by Company. Prior to execution of the Agreement, the initial development option for the LCP that will be implemented by Company will be known, and the one or more discrete Components (i.e. the Project) for which Consultant shall provide Services under the Agreement will be defined.

Company reserves the right to extend the Agreement to include any components of other LCP development options should Company decide to implement one or more such options at a later date.

0.0.1.2 Description of the LCP

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 planned to be developed via two sites on the lower Churchill River, known as the Lower Churchill Project.

The LCP 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 Gull Island site.

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

The transmission system(s) can include the following:

- A high voltage direct current (HVdc) system comprised of high voltage overhead lines crossing from Labrador to the island of Newfoundland via sub-sea cables, and associated converter stations.
- High voltage alternating current (HVac) overhead transmission lines interconnecting Gull Island to the existing Churchill Falls Generating Station, and

- High voltage alternating current (HVac) overhead transmission lines connecting the Muskrat Falls Hydroelectric Development to the Gull Island Hydroelectric Development.

There is potential for the Newfoundland transmission system to connect the island of Newfoundland to Nova Scotia or New Brunswick via an HVdc transmission system including transmission lines, sub-sea cables, associated converter stations and related electrode sites. This market alternative, which is presently under consideration by Company, will be between ± 200 kV and ± 450 kV and could either be a point to point system or part of a multi-terminal system linked to Sub-component 4A. Company reserves the right to add such scope to Consultant Services at any time during the life of this Agreement. Alternatively, Company reserves the right to engage Other Consultant(s) for such scope.

A more comprehensive description of the LCP is provided in Part 2, Exhibit 2.

0.0.1.3 LCP: Components, Development Options, and Project Framing

(i) Description of Components

For the purpose of this RFP and any subsequent Agreement for the provision of Engineering, Procurement, and Construction Management (EPCM) Services, the LCP is considered to be comprised of discrete physical Components, as follows:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 2: Gull Island Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and/or dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

(ii) Development Options

The initial development option for the LCP may be one of the following four (4) options:

Muskrat Falls Development - Scenario A

Development comprised of:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and dc) comprised of:

- Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
- Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
- Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Muskrat Falls Development – Scenario B

Development comprised of:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 4: High Voltage alternating current overhead transmission lines comprised of:
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Gull Island Development - Scenario A

Development comprised of:

- Component 1: Gull Island Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Gull Island Development – Scenario B

Development comprised of:

- Component 1: Gull Island Hydroelectric Development
- Component 4: high voltage alternating current overhead transmission lines comprised of:
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Figure 1 in this General Information for Proponents pictorially presents the Muskrat Falls Development - Scenario A with associated Components indicated.

Figure 2 in this General Information for Proponents pictorially presents the Muskrat Falls Development - Scenario B with associated Components indicated.

Figure 3 in this General Information for Proponents pictorially presents the Gull Island Development - Scenario A with associated Components indicated.

Figure 4 in this General Information for Proponents pictorially presents the Gull Island Development - Scenario B with associated Components indicated.

(iii) The Project

This RFP specifically relates to the provision of Services for the implementation of one or more of the noted Components.

For the purposes of any Agreement that Company enters into with Consultant, the Project refers to the one or more discrete Components of the overall LCP for which Consultant shall provide Services under the Agreement.

The term Project does not refer to the overall LCP.

0.0.2.0 PROJECT OFFICES

Company and its EPCM Consultant(s) and Subcontractors will perform all engineering and project management, with the possible exception of specialized engineering, for the Project in the province of Newfoundland and Labrador.

Proponent shall establish its main Project office in St. John's, Newfoundland and Labrador. This Project office must accommodate Proponent's required resources to perform the Services and must accommodate Company's Project management team (based on a minimum of 75 people – final number will be advised prior to award). The cost of these offices must be reflected in Proponent's Compensation Proposal.

With respect to specialized engineering, all reasonable efforts will be made to have specialized engineering performed in the province. In the event there is specialized engineering undertaken outside the province, Company will ensure that such work is done in full collaboration with local engineering effort and is integrated into the local engineering effort.

0.0.3.0 DEVELOPMENT SCHEDULE

Company desires to achieve first power from the LCP for either Muskrat Falls development option on or before 2016 or for either Gull Island development option on or before 2017, depending on which development option is selected.

The targeted Agreement award date is 4th Quarter 2010. Proponent shall provide a detailed schedule to support the project execution commencing 4th quarter 2010 to first power / full power at either Muskrat Falls or Gull Island showing critical path and sub critical path activities.

0.0.4.0 EXTENT OF SERVICES

Part 2, Exhibit 3 outlines the Services to be provided for the Project. However, the entire Agreement contains Consultant's obligations.

0.0.5.0 AGREEMENT BASIS AND PROPOSAL BASIS**0.0.5.1 Agreement Basis**

Company will implement the initial development option for the LCP using one or more EPCM agreements to provide Engineering Services, Procurement Services, Construction Management Services and other project management services. Other Contractors, through Contracts issued directly by Company (or by Consultant on behalf of Company) will perform selective engineering, project support services, supply, fabrication, construction, installation, commissioning, start up activities and other specialist services at the sole discretion of Company.

Although Company reserves the right to execute a separate agreement for all or any of the discrete Components which comprise the LCP, Company prefers to award one agreement to cover all Components that comprise the initial development option.

With respect to the Services for the one or more Components comprising the Project, Company reserves the option to award all or part of the Services and, in particular, reserves the option to award Construction Management Services separate from Engineering and Procurement Services. Proponent must clearly demonstrate, to the satisfaction of Company, that Proponent is providing the very highest caliber of Construction Management Services by providing evidence of past experience on similar projects and qualifications and experience of named individuals and construction teams.

0.0.5.2 Proposal Basis

Proponent may submit a Proposal for the provision of Services for any or all of the four (4) discrete Components described in 0.0.1.3(i) herein.

Should Proponent submit a Proposal for more than one Component, Proponent shall structure its Proposal in such a manner so as to allow Company to extract the relevant commercial and technical information for each Component separately. Alternatively, Proponent can submit a separate Proposal for each Component.

With respect to Component 4: high voltage overhead transmission lines (ac and/or dc), it is Company's intent to include all Component 4 Services in one (1) agreement. Proponent shall structure its Proposal for Component 4 in such a manner so as to allow Company to extract the relevant commercial and technical information for each of the Sub-components 4A, 4B, and 4C separately.

0.0.6.0 AGREEMENT COMPENSATION BASIS**0.0.6.1 General**

Proponent shall perform the Services and assume all obligations required by the Agreement for the compensation set forth in Part 2, Exhibit 4. The compensation basis for the Services is reimbursable plus a Fixed Fee. The Agreement Price for the Services is fully inclusive and is the total compensation that Proponent shall receive for complying with and fulfilling all instructions and obligations contained in this RFP. A broad overview of the compensation basis is provided below. It should be noted that this overview covers only the principle elements of the Agreement.

0.0.6.2 Reimbursable Costs

Reimbursable Costs include all costs as allowed for in Part 2, Exhibit 4 which are incurred and paid by Proponent directly as a result of performing the Services.

0.0.6.3 Fixed Fee

Compensation will also include a Fixed Fee to cover Proponent's profit and corporate office overhead and other general costs of doing business not otherwise recovered in the base rates, payroll burdens, office overhead rates or other rates outlined in the Agreement.

The Fixed Fee is not subject to escalation and will be paid in accordance with a proposed payment schedule (see Part 1, Section 0.4 Proposal Form B2 and Part 2, Exhibit 4).

With reference to 0.0.5.2, Proponent shall, in its Proposal(s), separately provide the Fixed Fee(s) for each Component for which it is submitting a Proposal. If Proponent is submitting a Proposal for all Components, Proponent shall provide the aggregate Fixed Fee(s) for each entire development option as described in 0.0.1.3(ii) herein.

The Fixed Fee or a portion of it should be aligned with specific Project milestones as described by Proponent in its Proposal.

0.0.6.4 Performance Incentives

At Company's sole option, Company may enter into discussions with Proponent to negotiate an incentive program. The purpose of such an incentive program is for Proponent to assist Company in identifying opportunities associated with Company's objective to develop the LCP.

If agreement to implement an incentive program is reached, it will be fully developed, agreed and incorporated into the Agreement. Any incentive program may be separated into engineering and procurement services, and construction management services.

Should Proponent wish to propose performance incentives for Company consideration, they should be presented in Part 1, Section 0.4 Proposal Form B7.

Although Company has requested Proponent to provide its incentive program, it will be implemented at the sole discretion of Company.

0.0.6.5 Purchase Order and Contracts

All purchases orders and Contracts required for the Work will be issued by Company (or by Consultant on behalf of Company), utilizing Company's purchasing and contract forms. Proponent will be responsible for issuing, administering, monitoring, reviewing, expediting and coordinating all aspects of the Work on behalf of Company utilizing Proponent's processes as approved by Company.

0.0.6.6 Newfoundland and Labrador Benefits

Company has negotiated an Impacts and Benefits Agreement (IBA) with the Innu Nation and, once ratified, it will be necessary for the EPCM consultant to fulfill the obligations contained within the IBA. Company has also developed a Benefits Strategy with the Province of Newfoundland and Labrador and commitments made in that strategy will become obligations of the EPCM consultant as well, including monitoring and reporting of benefits as outlined in Part 2, Exhibit 5, Section 15. Additional information on Newfoundland and Labrador Benefits commitments is contained in Part 1, Section 0.4, Proposal Form B6.

0.0.7.0 CONTRACTING ENTITY

0.0.7.1 General

The Proposal shall be signed by a duly authorized officer of Proponent. If Proponent is a corporation, the Proposal must be signed in its name and on its behalf by a duly authorized signing officer of the corporation.

If a joint venture or consortia Proposal, it shall submit with its Proposal a power of attorney executed by all of the general members of the joint venture or consortia, designating and appointing one of the general members of the joint venture or consortia as a managing sponsor, and authorizing the managing sponsor to sign the Proposal on behalf of Proponent, to act for and bind Proponent in all matters relating to the Proposal and, in particular, to agree that each member of the joint venture or consortia shall be jointly and severally liable for any and all of the duties and obligations assumed by Proponent under the Proposal and the Agreement, if awarded.

Proponent shall submit with its Proposal a notarized copy of the joint venture or consortia agreement it has established for the performance of the Services and a

corporate organization chart showing all members of the joint venture or consortia. It shall also outline the structure of the joint venture or consortia and the role of each member.

Company desires to enter into an Agreement with a prime Consultant. If a joint venture or consortia is contemplated Proponent shall advise who the prime Consultant will be. The Agreement will be between Company and prime Consultant.

0.0.7.2 Subcontract Considerations

If Services are proposed to be subcontracted, Company requires that this be clearly outlined in Proponent's Proposal including outlining a description of the Services being subcontracted. The subcontract nomination shall be supported by a demonstrated previous working relationship and successful track record between Proponent and the nominated Subcontractor.

Proponent's attention is drawn to the requirement to provide a proposed Subcontractor and Supplier plan that identifies when Proponent plans to engage Subcontractors as part of its response to Part 1, Section 0.5, Part C - Technical Proposal Questionnaire of the RFP.

0.0.8.0 STATUS OF ENGINEERING

0.0.8.1 General

Significant engineering work was carried out by Company in 2007, 2008 and 2009. A complete listing of the relevant documentation (as well as a selected listing of earlier study reports from 1997-2000 timeframe), is contained in Part 2, Exhibit 6. A selection of the listed documents is provided to Proponent for its reference and use in compiling its Proposal. A broader base of study reports dating back to the 1960's is also available in-house, and will be made available to the successful Proponent after execution of the Agreement.

As a result of the earlier work, the overarching LCP definition is now in place as described in Company document "Lower Churchill Project – Basis of Design". Services provided under the Agreement will build on, and not duplicate, the earlier work. Company stresses, however, that the status of engineering is preliminary and represents the current state of design development as of the date that the RFP is issued.

Subsequent to the award of the Agreement, Consultant will be required to formally review all documentation and data provided by Company as listed in Part 2, Exhibit 6. Consultant's formal review process is described in Part 2, Exhibit 5, Section 11.

0.0.8.2 Early Works Engineering

Company is proceeding with detailed engineering and procurement for selective site infrastructure facilities referred to as Early Works. The engineering deliverables resulting from this work may be provided to Consultant subsequent to the Effective Date of the Agreement.

0.0.9.0 BASE AND ALTERNATE COMMERCIAL PROPOSALS

Proponent shall submit a Proposal based on the base compensation model outlined in this RFP. Any alternative Commercial Proposal should be clearly stated as an alternative and included in Proposal Form B7 contained in Part I, Section 0.4 along with the base compensation model.

Lower Churchill Project: Development Option

Muskrat Falls Development – Scenario A

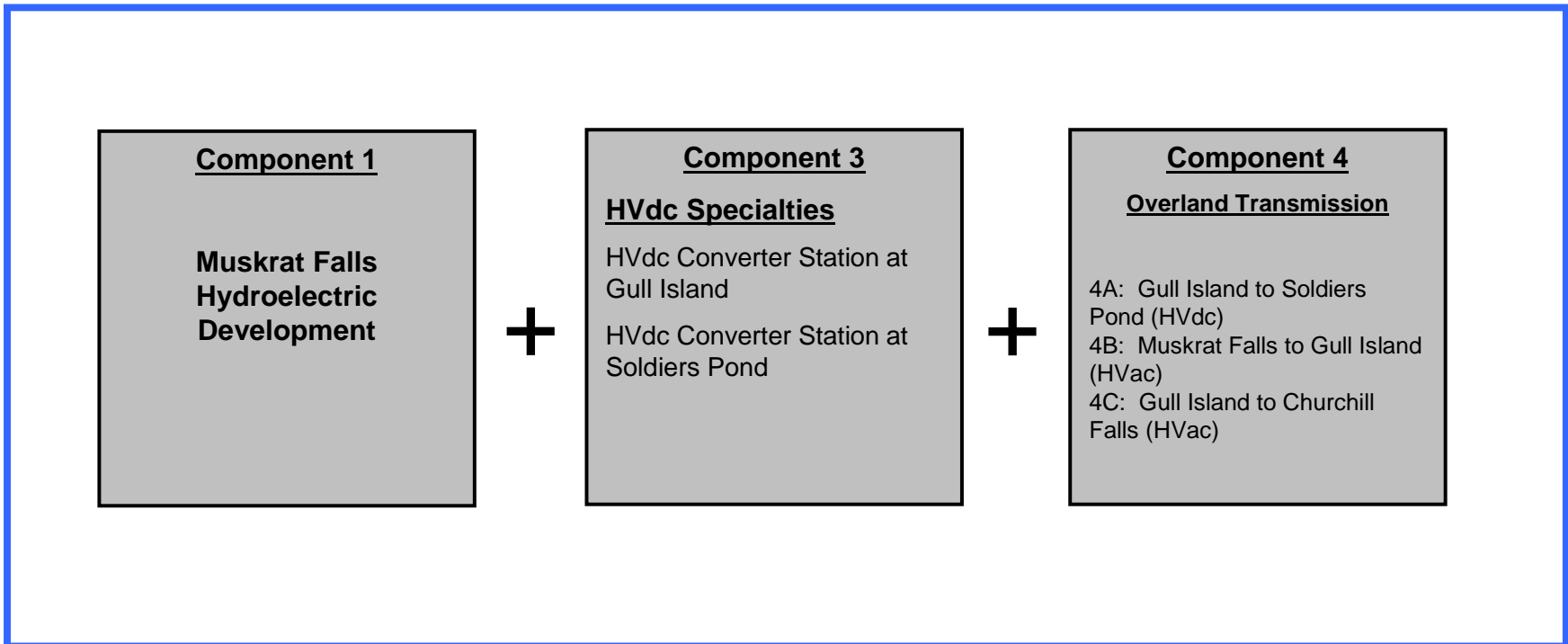


Figure 1: Muskrat Falls Development - Scenario A

Lower Churchill Project: Development Option

Muskrat Falls Development – Scenario B

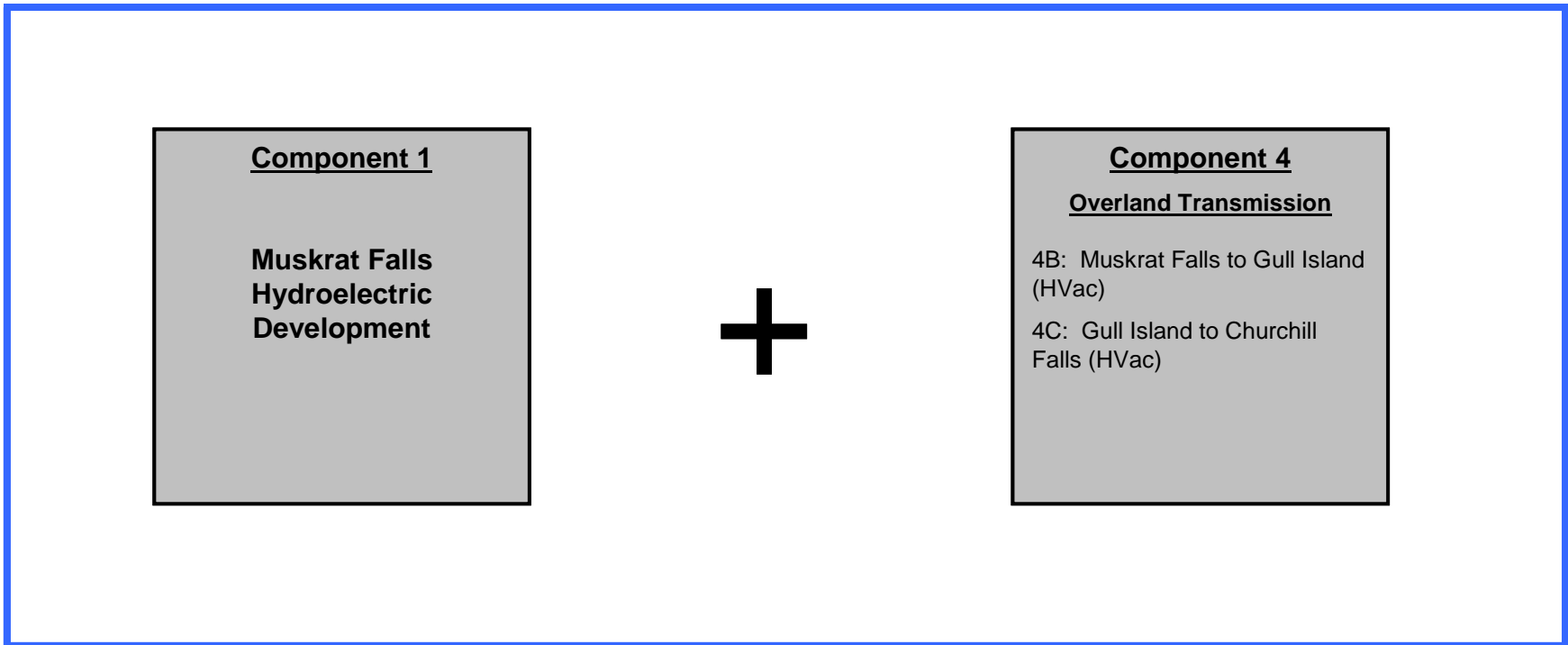


Figure 2: Muskrat Falls Development - Scenario B

Lower Churchill Project: Development Option

Gull Island Development – Scenario A

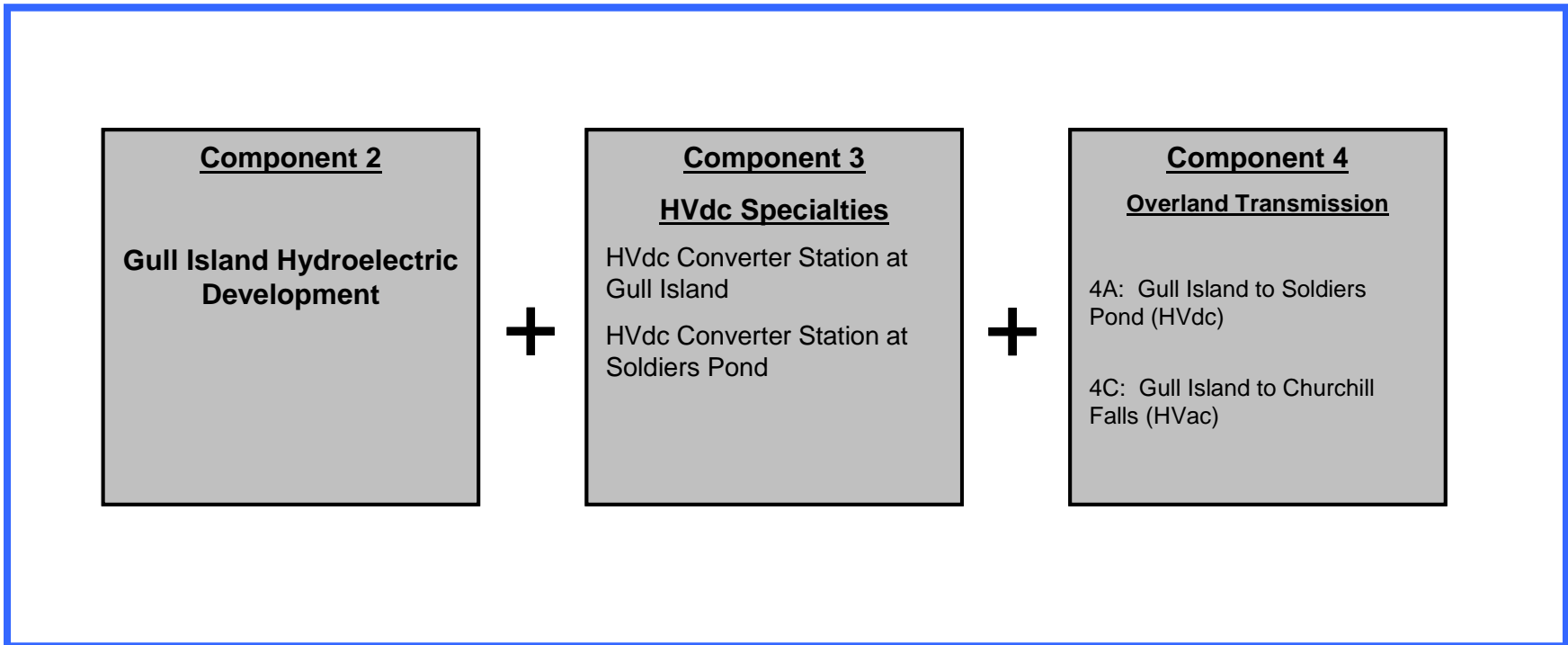


Figure 3: Gull Island Development - Scenario A

Lower Churchill Project: Development Option

Gull Island Development – Scenario B

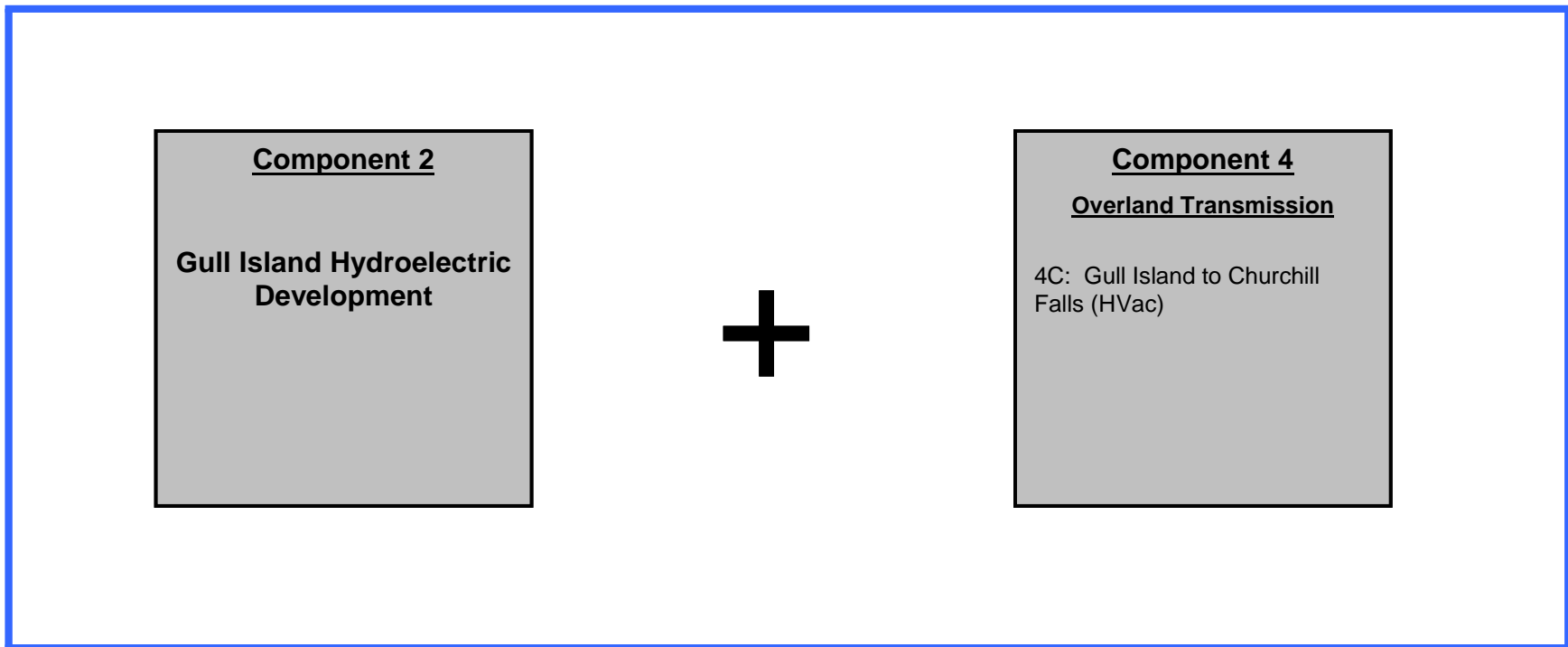


Figure 4: Gull Island Development - Scenario B

SECTION 0.1

INSTRUCTIONS TO PROPONENTS

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0.1.1 TERMINOLOGY / DEFINITIONS

DEFINITIONS

For all purposes of this Request for Proposal, except as is otherwise expressly provided herein or unless the context otherwise requires, the terms defined in Part 2, Agreement, shall have the same meanings as assigned to them in the Agreement.

Additional definitions not contained in the Agreement, which are applicable to this Request for Proposal are:

"Addenda" means any amendments to the RFP issued by Company to all Proponents during the proposal period, containing additional information or corrections, made by Company, to the Request for Proposal already issued.

"Bulletin" means any release of information by Company that is issued to all Proponents comprising Company's response to a Proponent clarification and / or the release of Addenda to the RFP in accordance with Section 0.1.7.

"Consultant" means the successful Proponent awarded the Agreement as a result of its Proposal being accepted.

"Company Representative" shall mean an individual appointed by the Company to have authority over one or more of Consultant's duties.

"Proponent" means a person, corporation, partnership, joint venture, company or other organization which has submitted a Proposal to Company for the provision of the Services.

"Proposal" means the document submitted by a Proponent in response to the Request for Proposal.

"Request for Proposal" or "RFP" means the documents issued to a Proponent by Company in connection with the preparation of the Proposal, including all Addenda.

"Successful Proponent" means the Proponent whose Proposal has been selected by Company and to whom the Agreement will be awarded.

0.1.2 INTRODUCTION

A summary description of the particulars of the Lower Churchill Project is provided for Proponents' reference in Part 1, Section 0.0, General Information for Proponents, and more fully described in Part 2, Exhibit 2, Project Description, of the Agreement.

Company is inviting Proposals from Proponents for engineering, procurement and construction management services for the Project as defined in Part 2, Exhibit 3,

Scope of Services. Company’s solicitation is based on receiving Proposals based on an execution strategy chosen by Proponent that will provide the most value for Company.

Successful Proponent will be required to complete the Services for Company in accordance with the requirements of this RFP and subsequent Agreement. The Agreement will comprise the documents set out in Part 2, including Exhibits 1 to 11 as may be updated during the RFP process.

0.1.3 PROPOSAL PROCESS AND SCHEDULE

- Issue RFP to Proponents 9 July 2010
- Proponent to acknowledge (by facsimile) receipt of RFP and report any missing parts RFP Issue Date + 3 Business Days
- Proponent to confirm its intention to submit a Proposal or to withdraw from further participation in the RFP process RFP Issue Date + 10 Business Days
- Latest date for receipt of clarification requests (from Proponents) Closing Time – 8 Business Days
- Latest date for Company to respond to clarification requests or issue Addenda to the RFP Closing Time – 5 Business Days
- Closing time for RFP is 1500 hrs Newfoundland time on: 16 September 2010
- Target Agreement award 4th Quarter 2010

0.1.4 REQUEST FOR PROPOSAL

- Part 1 General Information and Instructions to Proponents
 - Section 0.0 General Information for Proponents
 - Section 0.1 Instructions to Proponents
 - Section 0.2 Instructions to Proponents – Attachments
 - Section 0.3 Instructions to Proponents – Proposal Forms (Part A – Form of Proposal)
 - Section 0.4 Instructions to Proponents – Proposal Forms (Part B –Commercial Proposal)
 - Section 0.5 Instructions to Proponents – Part C – Technical Proposal Questionnaire

Part 2 Agreement (including Exhibits 1-11)

The RFP will be issued in electronic (pdf or native file, as appropriate) format.

0.1.5 MODIFICATIONS TO THE RFP

Company reserves the right to amend any part of the RFP at any time before the latest date stipulated in Section 0.1.3 for Company’s issue of responses to clarification requests / Addenda to the RFP. The procedure regarding Proponent’s

clarifications and Company's responses and the issue of Addenda is addressed in Section 0.1.7.

0.1.6 REQUIRED ACKNOWLEDGMENTS/ NOTIFICATIONS

- (1) After verifying that it has received all of the RFP as listed in Section 0.1.4, Proponent shall acknowledge its safe receipt, or otherwise advise Company of missing documents, by email as noted in Section 0.1.9 and no later than the date and time specified in Section 0.1.3, unless specifically notified otherwise by Company.
- (2) Proponent shall notify Company of its intention either to submit a Proposal or to withdraw from further participation no later than the date and time specified in Section 0.1.3, unless specifically notified otherwise by Company, by completing and returning Attachment 1 to Section 0.2 of this RFP via email as noted in Section 0.1.9. If Proponent decides that it will not submit a Proposal, it shall immediately return the RFP to Company at the address given in Section 0.1.9.
- (3) Proponent shall submit clarifications, if any, no later than the date and time specified in Section 0.1.3, unless these are specifically amended by Company, via email as noted in Section 0.1.9.
- (4) If, after having notified Company of its intention to submit a Proposal pursuant to paragraph (2) above, Proponent decides at any time during the RFP process that it will not submit a Proposal, it shall immediately send a written notification to Company in accordance with Section 0.1.9 and immediately return the RFP to Company at the address given in Section 0.1.10.

0.1.7 DISCREPANCIES, OMISSIONS AND CLARIFICATIONS

Proponent is responsible for examining, with appropriate care, the entire RFP and all Addenda, and for informing itself about all conditions and matters that might in any way affect the cost or performance of the Services. Failure to do so will be at Proponent's sole risk. No claims whatsoever shall be entertained arising out of Proponent's failure to examine the RFP.

If Proponent finds any errors or omissions in the RFP, or if Proponent has any doubt regarding the meaning of any requirements or data, Proponent shall promptly seek clarification from Company by submitting written clarification requests. All clarification requests should clearly identify the relevant RFP Section, page number and be in the format described in Attachment 2 to Section 0.2 of the RFP, and must be submitted to Company in accordance with the instructions set out in Section 0.1.9.

Company will issue clarification requests and responses to all Proponents as required throughout the process.

Each clarification response and / or Addenda to the RFP released by Company will be issued by way of an RFP Bulletin in the format described in Attachment 3 to Section 0.2.

0.1.8 CONFIDENTIALITY

Proponent shall comply fully with the terms of the confidentiality agreement it signed as a condition precedent to receiving the RFP.

The RFP shall remain the property of Company and shall be returned to Company, if requested.

0.1.9 CORRESPONDENCE

All contact between Company and Proponent in respect of this RFP must be made in writing only. All communications from Proponent must be by signed letter and submitted via email or facsimile and be addressed as described below. Proponent must not communicate with any other person in Company's organization in relation to this RFP or the RFP process generally.

All communications relating to the RFP must:

- (1) be in writing (with clarification requests being in the format set out in Attachment 2 to Section 0.2);
- (2) cite the reference number and title of the RFP (LC-G-002);
- (3) include a sequential reference number;
- (4) be emailed or faxed to:

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

Attn: Pat Hussey, Supply Chain Lead
Email: pathussey@nalcorenergy.com
Fax: 709-737-1985

Ref: RFP No: LC-G-002
Engineering, Procurement and Construction Management (EPCM) Services

0.1.10 SUBMITTAL OF PROPOSAL

- 1) The Proposal shall be submitted in the format described below. Full details of the constituent parts of the Proposal are addressed in the RFP. A complete Proposal package must be submitted as set out below.
- 2) Proponent must deliver, via hand delivery or courier, one (1) original and two (2) copies of its Proposal not later than the closing time specified in Section 0.1.3. Proponent must ensure that the Proposal arrives before the closing time specified. Proposal should be addressed to Company as follows:

PROPOSAL - DO NOT OPEN UNTIL THE PROPOSAL CLOSING TIME

(NAME OF PROPONENT):
PROPOSAL FOR:
EPCM SERVICES
RFP No: LC-G-002

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

Attn: Pat Hussey, Supply Chain Lead

ANY PROPOSAL RECEIVED AFTER THE CLOSING TIME WILL ONLY BE ACCEPTED
AT THE SOLE DISCRETION OF COMPANY.

- 3) The original and each copy shall each be submitted in a separate series of sealed packages, as follows:
 - i. The Form of Proposal and the Commercial Proposal (Parts A and B of the Proposal) shall be bound in separate sealed packages to the Technical Proposal (Part C of the Proposal).
 - ii. All packages are to be clearly marked, as appropriate: a) ORIGINAL, COPY 1, COPY 2, etc.; b) COMMERCIAL PROPOSAL or TECHNICAL PROPOSAL; and c) with the individual package number and the total number of packages in the series.
- 4) One (1) electronic copy (in CD-ROM form) containing the full text and faithful reproduction of Parts A and B of the Proposal (Microsoft Word® and Microsoft Excel®) shall be included with the original copy of the Form of Proposal.
- 5) One (1) electronic copy (in CD-ROM form) containing the full text and faithful reproduction of Part C of the Proposal (Microsoft Word® and Microsoft Excel®) shall be included in each original and copy of the Technical Proposal.

0.1.11 VALIDITY OF PROPOSAL

The submitted Proposal shall be valid for a period of 180 (one hundred and eighty) days after the closing time. Proponents shall be notified in writing when selection of a Successful Proponent has been made. A Proposal once submitted may not be withdrawn prior to the expiration of the validity period.

In the event of Company granting an extension to the closing date, such extension shall be granted to all Proponents through the issuance of a Bulletin in accordance with Section 0.1.7.

0.1.12 FULLY COMPLIANT PROPOSAL

For full compliance with the RFP, the Proposal shall be prepared and submitted in accordance with the following:

- (1) The Proposal shall be submitted in the form and format as prescribed in the RFP;
- (2) The Proposal shall be dated;
- (3) The Proposal shall show the full legal name and business address of the Proponent and shall be signed with the usual signature of the person authorized to legally bind the Proponent;
- (4) 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 RFP, it shall present such departures as an alternative to, but together with, the principal Proposal, explaining in full detail the nature and extent of the proposed departure and the consequent impact on the prices, schedules or any other aspect of the Proposal. Such departures, if any, shall be clearly identified and listed in a section of the Proposal devoted explicitly to that purpose. Consideration of any alternative or departure on the Proposal shall be at the sole discretion of Company; and
- (5) As described in paragraph 0.0.5.2 of Part 1, Section 0.0, Proponent may submit a Proposal for the provision of Services for any or all of the four (4) discrete Components described in 0.0.1.3 (i) therein. The Successful Proponent shall not be permitted to perform or participate in any engineering work for construction contractors or equipment suppliers who are engaged in Work associated with the Component(s) covered under such Agreement.

0.1.13 PROPONENT TO HAVE FULLY INFORMED ITSELF

In submitting a Proposal, Proponent shall be deemed:

- (1) To have carefully examined the RFP and;
- (2) To have made its own interpretations, deductions and conclusions as to the difficulties and cost of performing the Services and to have formulated an estimate of all facilities and other things needed to fulfil its obligations for the satisfactory performance and completion of the Services and to have allowed for same in its Proposal.

0.1.14 EVALUATION OF PROPOSALS

- (1) Company's evaluation of Proposals will be conducted in private.
- (2) The paper original of the Proposal, mentioned in Section 0.1.10, will have precedence over all other paper and electronic copies of the Proposal. Company will not use the electronic copies in the actual evaluation of the Proposals, but may use them for such purposes as an aid to locating items in the Proposals.
- (3) In the case of any discrepancy between words and figures, the words shall prevail.
- (4) Company will consider not only the Proposal compensation basis, but Proponent's representations with respect to key staff, delivery, capacity, subcontract nomination, execution methodology, resource availability, management organization, engineering, procurement and construction management capability, workload, level of Newfoundland and Labrador benefits content and other matters of commercial or technical importance to the Services.

0.1.15 ADDITIONAL GENERAL INFORMATION

- (1) Proposal and all correspondence shall be in the English language.
- (2) Company is not responsible for any costs or expenses Proponent may incur in preparing or discussing its Proposal or negotiating an Agreement for the Services. Company, at its sole discretion, may ask for certain meetings to be held at Proponent's office. Company will not make any advance payment or payments in respect of the Agreement when awarded.
- (3) Company shall not be bound to accept the lowest cost Proposal or any other Proposal and is under no obligation to enter into an Agreement with the

lowest cost Proponent or any other Proponent. Company reserves the right to accept the Proposal which it deems to have the best value for Company, and also reserves the right to reject any or all Proposals, in each case without notice.

- (4) The inclusion or otherwise of items of optional services or alternate prices called for in compliance with this RFP in any Agreement that may be awarded as a result of this RFP, shall entirely be at the sole discretion of Company.
- (5) Company, at its sole discretion, reserves the right to negotiate with any Proponent it believes has the most preferable Proposal or with any other Proponent or Proponents concurrently. In no event will Company be required to offer any modified terms to any other Proponent prior to entering into an Agreement with the Successful Proponent.
- (6) Company reserves the right, at its sole discretion to:
 - i. reject without notice any Proposal that is incomplete, conditional, obscure or does not comply with the requirements stipulated in the RFP, or that contains false information;
 - ii. cancel the RFP process at any time for its own reasons, without incurring any liability to Proponents or having any obligation to Proponents, and without having to give details of the reasons for any such action on Company's part;
 - iii. include in the Agreement any part of the Proponent's technical Proposal, as it may have been updated during the Proposal clarification process;
 - iv. include in the Agreement Price any part of the Proponent's commercial Proposal, as it may have been updated during the Proposal clarification process; and
 - v. not award an Agreement related to this RFP.

0.1.16 FORMAT OF PROPOSAL

Proponent shall present its Proposal in binders consisting of three parts as referenced below and bound in sealed packages as referenced in Section 0.1.10:

Part A – Form of Proposal - in detail per the Proposal Forms provided in Section 0.3.

Part B – Commercial Proposal - in detail per the Proposal Forms provided in Section 0.4.

Part C – Technical Proposal - in detail per the Technical Proposal Questionnaire provided in Section 0.5.

Note

Each Form shall be physically separated from the others by dividers or similar, with tabs.

SECTION 0.2

INSTRUCTIONS TO PROPONENTS - ATTACHMENTS

ATTACHMENT 1
FORM OF ACKNOWLEDGEMENT
Reference No. LC-G-002 EPCM Services
Request for Proposal

Date:

From:

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

Attention: Pat Hussey, Supply Chain Lead

Ref: **RFP No: LC-G-002**
Engineering, Procurement and Construction Management Services

We hereby acknowledge receipt of your Request for Proposal for the subject work, complete with all documents contained therein.

- * Proponent advises that it does not intend to submit a Proposal and that it hereby withdraws from further participation in the RFP process.
- * Proponent confirms that it intends to submit a Proposal to Company not later than the due date stipulated in the RFP. The person named below is Proponent's designated single point of contact, to whom any communications in relation to the RFP should be addressed.

(* Delete as applicable)

Yours truly,

(Title)

| <u>ATTACHMENT 2</u> <u>CLARIFICATION REQUEST FORMAT (TYPICAL)</u> <u>Reference No. LC – G – 002 EPCM Services Request for Proposal</u> | | |
|---|-----------------------|--|
| | | |
| From: | | To: Pat Hussey – Supply Chain Lead |
| Proponent (Name): | | Company: Nalcor Energy – Lower Churchill Project |
| Email: | | Email: pathussey@nalcorenergy.com |
| Fax: | | Fax: 709-737-1985 |
| Date: | | |
| Number of Pages, cover + | | |
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| Clarification # | RFP Section Reference | Question/ Clarification Request |
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ATTACHMENT 3
RFP BULLETIN FORMAT (TYPICAL)
Reference No. LC–G–002 EPCM Services Request for Proposal

| | |
|--|-------------------|
| From: Pat Hussey – Supply Chain Lead | To: |
| Company: Nalcor Energy – Lower Churchill Project | Proponent (Name): |
| Email: pathussey@nalcorenergy.com | Email: |
| Fax: 709-737-1985 | Fax: |
| Date: | |
| Number of Pages, cover + | |
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| Clarification # | RFP Section Reference | Bulletin |
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SECTION 0.3

INSTRUCTIONS TO PROPONENTS – PROPOSAL FORM

(PART A – FORM OF PROPOSAL)

PROPOSAL FORM

TABLE OF CONTENTS

Part A

1. Proposal Form A1 - Proposal Form Letter (to be completed by Proponent)

Description of Forms

Proposal Form A1 – Proposal Form Letter (to be completed by Proponent): Proponent shall present its Proposal Form Letter on its formal letterhead in exactly the same format and content as per Proposal Form A1 provided herein. This letter must be signed by the duly authorized signing officer or officers of Proponent.

Proposal Form – A1 Proposal Form Letter

Nalcor Energy - Lower Churchill Project
P. O. Box 12800, 500 Columbus Drive
St. John’s, Newfoundland and Labrador
Canada A1B 0C9

Attention: Pat Hussey, Supply Chain Lead

**Ref: RFP No: LC-G-002
Engineering, Procurement and Construction Management (EPCM) Services**

Dear Mr. Hussey:

I/We _____ hereby agree that:
(Official Name of Proponent)

- 1. After carefully examining the Request for Proposal, we do hereby offer to perform the Services described therein, at the prices quoted in the Proposal, as applicable, all in accordance with the said documents;
- 2. This Proposal is made without any collusion, comparison of figures or arrangement with any other Proponent;
- 3. We have carefully examined the Request for Proposal, including the following Addenda:

| | | | |
|-----------------|-------|-------|-------|
| Addendum Number | _____ | dated | _____ |
| | _____ | dated | _____ |
| | _____ | dated | _____ |
| | _____ | dated | _____ |

- 4. We hereby propose and offer to enter into the Agreement contained in the Request for Proposal to complete the Services and hereby agree to do all that is set out or called for in the Request for Proposal, within the time specified and for the prices quoted in the Proposal;
- 5. We agree to carry out additional Services when required by Company, as provided for in the Agreement;
- 6. We agree that this Proposal is to remain valid for one hundred and eighty (180) days and Company may, at any time during said period, accept the Proposal;

- 7. We agree that, upon receipt of notification of acceptance of this Proposal, we shall execute the Agreement;
- 8. If selected as a Successful Proponent and if required by Company, we agree that, prior to the execution of the Agreement we shall provide a Parent Company Guarantee and / or an irrevocable and unconditional letter(s) of credit in accordance with the requirements of the Request for Proposal;
- 9. We agree that we shall not be reimbursed for any cost incurred in the preparation of the Proposal or any costs incurred for performing any part of the Services prior to entering into the Agreement; and
- 10. We hereby warrant and represent that we have the right to transfer all information contained within this Proposal and that the transfer of such information does not infringe the proprietary rights of any third party nor does the receipt and use by Company constitute unauthorized disclosure or use of any trade secret, patent or copyright of Proponent or of any third party.

(FOR EXECUTION BY A CORPORATION)

Executed on behalf of _____, the Proponent

(Witness)

Signature

Name of signatory
(Please print)

Office Held

Dated at _____ this _____ day of _____ 2010.

SECTION 0.4

INSTRUCTIONS TO PROPONENTS - PROPOSAL FORMS

(PART B - COMMERCIAL PROPOSAL)

Introduction to Proposal Forms Part B Commercial Proposal

This Section contains all Proposal Forms necessary for Proponent to present its commercial Proposal. In presenting the information required by this Section, Proponent shall be responsible for reading and understanding all elements of the RFP.

The forms included in this Part B will be used to:

1. Provide a provisional estimated cost of Services at the discrete physical component level,
2. Evaluate the monetary value of the Services through cost analysis and efficiency reviews based on the submitted rates,
3. Where applicable, form the rate basis of Exhibit 4, Compensation, of the Agreement,
4. If applicable, aid in the negotiation of any incentive program.

Proponents must complete the forms as presented in the Proposal Forms. Proposal Forms shall be duplicated whenever required to display the required information (ie. multiple locations).

Information presented in these Proposal Forms may be extracted for inclusion into the final Agreement.

If necessary, Proponent can provide additional information as an Appendix to the Proposal Form.

Section 0.4

INSTRUCTIONS TO PROPONENTS - PROPOSAL FORMS

PART B - COMMERCIAL PROPOSAL

TABLE OF CONTENTS

Part B

| | |
|------------------|---|
| Proposal Form B1 | Provisional Estimate |
| Proposal Form B2 | Fixed Fee |
| Proposal Form B3 | Billable Hourly Rate - Burdens and Overhead |
| Proposal Form B4 | Additional Rates |
| Proposal Form B5 | Location Allowances |
| Proposal Form B6 | Newfoundland and Labrador Benefits |
| Proposal Form B7 | Additional Commercial Information |

PROPOSAL FORM B1**PROVISIONAL ESTIMATE****General Notes concerning the Provisional Estimate**

1. Proponent shall present its provisional estimate for the Services in this Proposal Form B1(a). Although Proponent's estimates are considered to be provisional only, Proponent shall ensure that its estimates are in every respect consistent with the Scope of Services, Proponent's Execution Plan and organization charts, as well as all other information presented by Proponent in response to this RFP. Estimates of person hours shall be for reimbursable hours only.
2. Proponent shall complete Proposal Form B1(a) for the Services to be provided for each Component as outlined on the form and as more fully described in Part 2, Exhibit 2 and Exhibit 3.
3. Proponent's estimate should be consistent with the provisions of Exhibit 4, Compensation.
4. Proponent shall provide, as an attachment to this Proposal Form B1, details of any parts of the Services that Proponent proposes to be performed by Subcontractors. Proponent shall include full definition of the Services to be subcontracted, the proposed Subcontractor and an estimate of the cost of each such Subcontract. Details of the scope and estimated cost of the proposed Subcontracts, as clarified and agreed with Company as a part of the formal Proposal clarification process, may be included in the Agreement within an Appendix to Exhibit 4, Compensation.
5. Proponent shall provide further breakdowns, as necessary, to explain its estimate components. Any such information shall be included as an Attachment to this Proposal Form B1.
6. Proponent, as part of the requirements outlined in Part 1, Section 0.5, Part C, is required to provide a Project organization chart, estimate of persons and person hours to execute the Project. Estimates of person hours shall be for reimbursable hours only and the forms contained in Part 1, Section 0.5, Part C, Forms C1, C2, C3, C4 are required to be completed.

General Notes concerning the Rate Classification Table

1. This Proposal Form B1(b) lists various potential classifications of positions by function for the Project. This is not meant to be an all inclusive list and Proponent may add other classifications.

2. Proponent shall provide a representative base labor rate per hour for each classification. These rates are base labor rates without burdens or markups.
3. Subsequent Agreement rates will be based on actual salaries or cost of all Personnel assigned to the Project through the Personnel Assignment Authorization Form (PAA). This is more fully explained in Exhibit 4.

Proposal Form B1(a) - Provisional Estimate - Summary

| Component 1: Muskrat Falls Hydroelectric Development | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

| Component 2: Gull Island Hydroelectric Development | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

| Component 3: High Voltage Direct Current Transmission System Specialties | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

NOTE: Estimated hours are those detailed in Part 1, Section 0.5, Part C, Forms C1, C2, C3, C4

1. Estimated reimbursable hours within the duration planned as detailed in Part 1, Section 0.5, Part C, Forms C1, C2, C3, C4
2. Average hourly rate (straight time) for mix of personnel over planned duration
3. Estimated Base Labour Cost is product of Column (1) times Column (2)
4. Fixed Rates to be applied per hour to Company approved time.
5. Total Estimated Labor Based Cost $5 = 3 + (3 \times 4a) + (4b + 4c + 4d)$

Proposal Form B1(a) - Provisional Estimate - Summary

| Component 4: Sub-component 4A: HVdc Overhead Transmission Lines Gull Island to Soldiers Pond | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

| Component 4: Sub-component 4B: HVac Overhead Transmission Lines Muskrat Falls to Gull Island | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

| Component 4: Sub-component 4C: HVac Overhead Transmission Lines Gull Island to Churchill Falls | | | | | | | | |
|--|------------------------|-----------------------|--|------------------------------|--------------------------------|----------------------------------|-----------------------------|---|
| Function | (1) Estimated Hours | (2) Hourly Rate (Avg) | (3) = (1) x (2) Estimated Base Labor Cost | (4a) Payroll Burden Rate (%) | (4b) Office Overhead Rate (\$) | (4c) Computer Services Rate (\$) | (4d) Reproduction Rate (\$) | (5)=3+(3x4a)+(4b+4c+4d) Total Estimated Labor Based Cost |
| Project Management | | | | | | | | |
| Engineering | | | | | | | | |
| Procurement | | | | | | | | |
| Construction Management | | | | | | | | |
| Other | | | | | | | | |
| Total | | | | | | | | |

NOTE: Estimated hours are those detailed in Part 1, Section 0.5, Part C, Forms C1, C2, C3, C4

1. Estimated reimbursable hours within the duration planned as detailed in Part 1, Section 0.5, Part C, Forms C1, C2, C3, C4
2. Average hourly rate (straight time) for mix of personnel over planned duration
3. Estimated Base Labour Cost is product of Column (1) times Column (2)
4. Fixed Rates to be applied per hour to Company approved time.
5. Total Estimated Labor Based Cost $5 = 3 + (3 \times 4a) + (4b + 4c + 4d)$

| Proposal Form B1(b) - Rate Classification Table | | | |
|--|-----------------------|----------------|-------------|
| Classification | Labour Rate per Hour | | |
| | Regular Working Hours | Overtime Hours | Travel Time |
| Management | | | |
| Project Manager | | | |
| Engineering Manager | | | |
| General Construction Manager | | | |
| Project Controls Manager | | | |
| Business Services / Commercial Manager | | | |
| Supply Chain Manager | | | |
| HSE Manager | | | |
| Quality Manager | | | |
| | | | |
| Technical Specialists | | | |
| Civil Engineering Lead - General | | | |
| Civil Engineering Lead – Main Dam and Cofferdams | | | |
| Civil Engineering Lead - Geotechnical | | | |
| Civil Engineering Lead – Hydrotechnical | | | |
| Civil Engineering Lead - Structural, Steel | | | |
| Civil Engineering Lead - Structural, Concrete | | | |
| 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 | | | |
| Lead Engineer - Gates, Hoists and Cranes | | | |
| | | | |
| Communications Engineering Lead (telecommunications) | | | |
| HVdc System Integration Engineering Lead | | | |
| Electrical Engineering Lead – Power Systems | | | |
| Civil Engineering Lead – Transmission Towers & Foundations | | | |
| Transmission Lines Engineering Lead | | | |
| Surveying Engineering Lead - Transmission Lines | | | |
| Converter Stations / Switchyard Lead | | | |
| Sr. Civil Engineer - General | | | |
| Int. Civil Engineer - General | | | |
| Jr. Civil Engineer - General | | | |
| Sr. Geotechnical Engineer | | | |
| Int. Geotechnical Engineer | | | |
| Jr. Geotechnical Engineer | | | |
| Sr. Hydrotechnical Engineer | | | |
| Int. Hydrotechnical Engineer | | | |
| Jr. Hydrotechnical Engineer | | | |
| Sr. Civil Engineer - Hydraulics | | | |
| Int. Civil Engineer - Hydraulics | | | |
| Jr. Civil Engineer - Hydraulics | | | |
| Sr. Civil Engineer – Hydrology | | | |
| Int. Civil Engineer - Hydrology | | | |
| Jr. Civil Engineer - Hydrology | | | |
| Sr. Civil Engineer - Structural, Steel | | | |

| Proposal Form B1(b) - Rate Classification Table | | | |
|---|-----------------------|----------------|-------------|
| Classification | Labour Rate per Hour | | |
| | Regular Working Hours | Overtime Hours | Travel Time |
| Int. Civil Engineer - Structural, Steel | | | |
| Jr. Civil Engineer - Structural, Steel | | | |
| Sr. Civil Engineer - Structural, Concrete | | | |
| Int. Civil Engineer - Structural, Concrete | | | |
| Jr. Civil Engineer - Structural, Concrete | | | |
| Sr. Civil Technologist, Concrete | | | |
| Int. Civil Technologist, Concrete | | | |
| Jr. Civil Technologist, Concrete | | | |
| Sr. Civil Engineer - Environmental | | | |
| Int. Civil Engineer - Environmental | | | |
| Jr. Civil Engineer - Environmental | | | |
| Sr. Electrical Engineer – General | | | |
| Int. Electrical Engineer – General | | | |
| Jr. Electrical Engineer – General | | | |
| Sr. Electrical Engineer - Power Generation | | | |
| Int. Electrical Engineer - Power Generation | | | |
| Jr. Electrical Engineer - Power Generation | | | |
| Sr. Electrical Engineer – Control Systems | | | |
| Int. Electrical Engineer – Control Systems | | | |
| Jr. Electrical Engineer – Control Systems | | | |
| Sr. Electrical Engineer – Instrumentation | | | |
| Int. Electrical Engineer – Instrumentation | | | |
| Jr. Electrical Engineer – Instrumentation | | | |
| Sr. Electrical Engineer – Protection & Controls | | | |
| Int. Electrical Engineer – Protection & Controls | | | |
| Jr. Electrical Engineer – Protection & Controls | | | |
| Sr. Electro-Mechanical Engineer (T&G) | | | |
| Int. Electro-Mechanical Engineer (T&G) | | | |
| Jr. Electro-Mechanical Engineer (T&G) | | | |
| Sr. Mechanical Engineer – General | | | |
| Int. Mechanical Engineer – General | | | |
| Jr. Mechanical Engineer – General | | | |
| Sr. Communications Engineer (telecommunications) | | | |
| Int. Communications Engineer (telecommunications) | | | |
| Jr. Communications Engineer (telecommunications) | | | |
| Sr. Geologist | | | |
| Int. Geologist | | | |
| Jr. Geologist | | | |
| Sr. Biologist | | | |
| Int. Biologist | | | |
| Sr. Ecologist | | | |
| Sr. Forestry Engineer | | | |
| Int. Forestry Engineer | | | |
| Sr. Materials / Metallurgical Engineer | | | |
| Int. Materials / Metallurgical Engineer | | | |
| Sr. Electrical Engineer – Electrode | | | |
| Sr. Tunneling Engineer | | | |
| Sr. Land Surveying Engineer | | | |
| Int. Land Surveying Engineer | | | |
| Jr. Land Surveying Engineer | | | |
| Sr. Engineer – Seismology | | | |
| GIS Technician | | | |
| Lead CADD Operator | | | |

| Proposal Form B1(b) - Rate Classification Table | | | |
|---|-----------------------|----------------|-------------|
| Classification | Labour Rate per Hour | | |
| | Regular Working Hours | Overtime Hours | Travel Time |
| Sr. CADD Operator | | | |
| Int. CADD Operator | | | |
| Jr. CADD Operator | | | |
| Sr. Architect | | | |
| Int. Architect | | | |
| Sr. Architectural Technologist | | | |
| Int. Architectural Technologist | | | |
| Jr. Architectural Technologist | | | |
| Sr. HVdc System Integration Engineer | | | |
| Sr. Electrical Engineer – Simulation | | | |
| Sr. Electrical Engineer - Power Systems | | | |
| Sr. Civil Engineer – Transmission Towers & Foundations | | | |
| Int. Civil Engineer – Transmission Towers & Foundations | | | |
| Jr. Civil Engineer – Transmission Towers & Foundations | | | |
| Sr. Transmission Lines Engineer | | | |
| Int. Transmission Lines Engineer | | | |
| Jr. Transmission Lines Engineer | | | |
| Access Roads / Infrastructure Lead - Transmission | | | |
| Sr. Meteorologist | | | |
| | | | |
| Project Controls | | | |
| Project Controls Lead | | | |
| Sr. Cost Engineer | | | |
| Int. Cost Engineer | | | |
| Jr. Cost Engineer | | | |
| Sr. Project Estimator | | | |
| Int. Project Estimator | | | |
| Jr. Project Estimator | | | |
| Sr. Project Planner / Scheduler | | | |
| Int. Project Planner / Scheduler | | | |
| Jr. Project Planner / Scheduler | | | |
| | | | |
| Construction | | | |
| Construction Manager – Gull Island / Muskrat Falls Site | | | |
| Construction Manager – HVdc Transmission Specialties | | | |
| Construction Manager – Overland Transmission | | | |
| Area Construction Engineer - Infrastructure | | | |
| Area Construction Engineer - Hydro | | | |
| Area Construction Engineer - Transmission | | | |
| Area Construction Engineer – HVdc Specialty Installations | | | |
| Construction Inspection Supervisor – Transmission Lines | | | |
| Labor Relations Advisor | | | |
| Sr. Civil Field Engineer | | | |
| Int. Civil Field Engineer | | | |
| Sr. Mechanical Installation Engineer | | | |
| Sr. Electrical Installation Engineer | | | |
| Concrete Specialist | | | |
| Field Engineer - Electrical | | | |
| Field Engineer - Mechanical | | | |

| Proposal Form B1(b) - Rate Classification Table | | | |
|---|-----------------------|----------------|-------------|
| Classification | Labour Rate per Hour | | |
| | Regular Working Hours | Overtime Hours | Travel Time |
| Project Engineer | | | |
| Field Inspector | | | |
| Sr. Commissioning Engineer | | | |
| Int. Commissioning Engineer | | | |
| Party Chief Surveying / Dimensional Control | | | |
| Sr. Construction Surveyor | | | |
| Int. Construction Surveyor | | | |
| Jr. Construction Surveyor | | | |
| Sr. Quantity Surveyor | | | |
| Int. Quantity Surveyor | | | |
| Jr. Quantity Surveyor | | | |
| | | | |
| Supply Chain | | | |
| Procurement Supervisor | | | |
| Sr. Buyer | | | |
| Int. Buyer | | | |
| Jr. Buyer | | | |
| Contracts Supervisor | | | |
| Contracts Specialist - Heavy Construction | | | |
| Sr. Contracts Coordinator | | | |
| Int. Contracts Coordinator | | | |
| Jr. Contracts Coordinator | | | |
| Sr. Logistics Coordinator | | | |
| Int. Logistics Coordinator | | | |
| Jr. Logistics Coordinator | | | |
| Materials Control Lead | | | |
| Sr. Material Controller | | | |
| Int. Material Controller | | | |
| Jr. Material Controller | | | |
| Sr. Expeditor | | | |
| Int. Expeditor | | | |
| Jr. Expeditor | | | |
| | | | |
| HSE | | | |
| OHS Lead | | | |
| HSE Auditor | | | |
| Sr. OHS Advisor | | | |
| Int. OHS Advisor | | | |
| Jr. OHS Advisor | | | |
| OHS Site Inspector | | | |
| Environment Lead | | | |
| Environment Monitor | | | |
| Permits Coordinator | | | |
| | | | |
| Quality | | | |
| Lead Quality Engineer | | | |
| Quality Auditor | | | |
| Sr. QA/QC Engineer | | | |
| Int. QA/QC Engineer | | | |
| Jr. QA/QC Engineer | | | |
| Sr. QC Inspector | | | |
| Int. QC Inspector | | | |
| Jr. QC Inspector | | | |

| Proposal Form B1(b) - Rate Classification Table | | | |
|---|-----------------------|----------------|-------------|
| Classification | Labour Rate per Hour | | |
| | Regular Working Hours | Overtime Hours | Travel Time |
| Quality Support Engineer | | | |
| Quality Support Engineer - Supply Chain | | | |
| Quality Support Engineer - Construction | | | |
| | | | |
| Business Services | | | |
| Accounting and Controller Lead | | | |
| Accounts Payable Lead | | | |
| Sr. Project Accountant | | | |
| Int. Project Accountant | | | |
| Jr. Project Accountant | | | |
| Tax Analyst | | | |
| Accounts Payable Analyst | | | |
| Accounts Payable Clerk | | | |
| Cost Analyst | | | |
| | | | |
| Information Management | | | |
| Information Systems (IS) Supervisor | | | |
| IS Administrator | | | |
| Engineering Data Administrator | | | |
| IT Support (Helpdesk Analyst) | | | |
| Sr. Document Controller | | | |
| Int. Document Controller | | | |
| Jr. Document Controller | | | |
| Sr. Administration Assistant | | | |
| Int. Administration Assistant | | | |
| Jr. Administration Assistant | | | |
| | | | |
| Others | | | |
| Labour Relations Lead | | | |
| Labour Relations Advisor | | | |
| Benefits Analyst | | | |
| Training Coordinator | | | |
| HR Staffing Coordinator | | | |
| Technical Interface Manager | | | |
| | | | |
| Definitions | | | |
| As part of its response to this Request for Proposal, Proponent shall provide its definitions that apply to Lead, Senior, Intermediate and Junior designations. | | | |
| | | | |

PROPOSAL FORM B2**FIXED FEE**

The Fixed Fee is a lump sum amount (not subject to escalation) covering Proponent's profit and corporate office overhead and other general costs of doing business not specifically recovered elsewhere in the Agreement including the following:

- Advertising for corporate or general purposes
- Debt interest, cost of capital
- Profit sharing
- Business risks
- Depreciation/ amortization not covered in office overhead or other fixed rates
- Corporate dues
- Executive salaries (and payroll burdens)
- Administrative and executive support personnel (and payroll burdens)
- Sales, business development, including technical participation
- Consultant's own research and development costs
- Legal costs
- Corporate accounting (accounting done for Consultant's general business needs versus accounting for project specific requirements)
- Umbrella insurance
- All costs that are not specified as Reimbursable Costs under this Agreement
- Taxes based on income and licenses/ know-how fees
- All profit related to performing the Services
- Professional engineer licenses to stamp documents
- Team building events
- Team building purchases such as clothing, mugs, kit bags etc.
- Professional memberships, corporate registration and other fees

With reference to Part 1, Section 0.0, clause 0.0.5.2, Proponent shall separately provide the Fixed Fee(s) for each Component for which it is submitting a Proposal. If Proponent is submitting a Proposal for all Components, Proponent shall provide the aggregate Fixed Fee(s) for each entire development option as described in Part 1, Section 0.0, clause 0.0.1.3(ii) therein.

Proponent shall complete the following Fixed Fee Schedule for the Services. Proponent shall identify proposed fee payments in terms of specific Project milestones after commencement of the Services. The Fixed Fee or a portion of it should be aligned with specific Project milestones as described by Proponent in its Proposal. The last payment will constitute 15% of the Fixed Fee.

| Proposal Form B2 - Fixed Fee (separate Components) | |
|--|--------------------|
| COMPONENT | Fixed Fee |
| Component 1: Muskrat Falls Hydroelectric Development | |
| Component 2: Gull Island Hydroelectric Development | |
| Component 3: High Voltage Direct Current Transmission System Specialties | |
| Component 4: High Voltage Overhead Transmission Line (ac and/or dc) | N/A - See 4A/4B/4C |
| Sub-component 4A: HVdc Overhead Transmission Lines Gull Island to Soldiers Pond | |
| Sub-component 4B: HVac Overhead Transmission Lines Muskrat Falls to Gull Island | |
| Sub-component 4C: HVac Overhead Transmission Lines Gull Island to Churchill Falls | |

| Proposal Form B2 - Fixed Fee (Aggregate for Development Options) | |
|---|------------------|
| DEVELOPMENT OPTIONS | Fixed Fee |
| Muskrat Falls Development – Scenario A | |
| Muskrat Falls Development – Scenario B | |
| Gull Island Development – Scenario A | |
| Gull Island Development – Scenario B | |
| | |

| Proposal Form B2 - Fixed Fee Schedule (for each Component or Aggregate for Development Options) | |
|--|-----------------|
| Project Milestone | % of Fee |
| | |
| | |
| | |
| | |
| | |

PROPOSAL FORM B3**BILLABLE HOURLY RATE - BURDENS AND OVERHEAD**

Proponent shall complete the attached Proposal Form B3(a) containing the components listed below which are used to calculate the total billable hourly rate for approved Consultant's Personnel for each location where the Services may be executed.

Proponent can insert as many rows as necessary into the form in order to address all locations from which services will be performed.

Payroll Burden Rates by Location (A)

Recovery of all fixed payroll burden costs (i.e. Canada Pension Plan, Employment Insurance, pension plan, vacation, insurance etc.) will be through a fixed percentage applied to the hourly rate for basic work week hours worked, for approved Consultant's Personnel, to arrive at the total billable hourly rate to be invoiced for labor costs.

In addition to the information provided in the form, Proponent shall also provide a breakdown of what constitutes the payroll burden rate.

Office Overhead Rates by Location (B)

Proponent's office overhead costs will be recovered by adding the rates proposed herein, in accordance with Exhibit 4.

Recovery of all office overhead costs will be through a fixed dollar amount added to the hourly rate for basic work week hours, for approved Consultant's Personnel, to arrive at the total billing rates to be invoiced for labor costs.

In addition to the information provided in the form, Proponent shall provide a breakdown of what constitutes the office overhead rate.

Computer Services Rates by Location (C)

Computer services rate should reflect the cost component that is required for software, network infrastructure, IT support staff costs etc including operation, support and maintenance. Recovery of the computer services will be through a fixed dollar amount added to the hourly rate for basic work week hours, for approved Consultant's Personnel, to arrive at the total billing rates to be invoiced for labor costs.

In addition to the information provided in the form, Proponent shall provide a detailed build-up of the computer services rate.

Reproduction Services Rates by Location (D)

Reproduction services rate should reflect the cost required for leasing equipment, maintaining equipment, supplies, reproduction staff costs, management etc. Recovery of the reproduction services will be through a fixed dollar amount added to the hourly rate for basic work week hours, for approved Consultant's Personnel, to arrive at the total billing rates to be invoiced for labor costs.

In addition to the information provided in the form, Proponent shall provide a breakdown of what constitutes the reproduction services rate.

Canadian Tax Equalization Rate (E)

Proponent, if applicable, shall provide its percentage rate for Canadian tax equalization that may be applied to Personnel from outside Canada that will be working in Canada, as described in Part 2, Exhibit 4, clause 4.3.2.6. If rates are different for various countries of origin, provide the various applicable rates.

Proponent shall provide its understanding of Canadian tax equalization and its experience with managing it.

Independent Contractors and Agency Personnel

In addition to Proponents regular employees, Company anticipates that Proponent may source Personnel for the Services by utilizing independent contractors or personnel agencies. Office overhead rate, computer services rate and reproduction services rate will be applied to the cost of these Personnel who will reside in Proponent's offices.

There will be no payroll burden mark-up or a general mark-up on independent contractors or resources from personnel agencies.

| Proposal Form B3(a) - Billable Hourly Rate Burdens and Overhead | | | | | | | |
|---|-----------------------|-----------|-------------------------|--------------------------------|----------------------------------|--------------------------------------|--------------------------------------|
| Office Location | Personnel Description | Time Type | Payroll Burden Rate (%) | Office Overhead Rate (\$/Hour) | Computer Services Rate (\$/Hour) | Reproduction Services Rate (\$/Hour) | Cdn. Tax Equilization Percentage (%) |
| | | | (A) | (B) | (C) | (D) | (E) |
| | Consultant Employees | Straight | | | | | |
| | Other (describe) | Straight | | | | | |
| | Work Term Students | Straight | | | | | |
| | Independent/Agency | Straight | | | | | |
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* Bidder shall insert as may rows as required

PROPOSAL FORM B4**ADDITIONAL RATES**General

Proponent shall provide rates to be applied in the event that additional items or quantities are requested by Company.

Office Space Facilities for Company Personnel

Company will require office facilities for its Personnel in Consultant's main Project office in St. John's, Newfoundland and Labrador in which the Services will be performed. Proponent shall provide rates for office configurations and equipment identified in Exhibit 5, Section 2 to facilitate Company's Personnel in Consultant's Project office. The monthly rate shall be all inclusive of the requirements outlined in Exhibit 5, Section 2 with the exception of computer hardware and software referenced below. Proponent may identify additional elements, if required.

Computer Hardware and Software

Company requires Consultant to purchase all hardware (including desktop computers, laptop computers, printers, scanners, fax machines, projectors, video conference equipment and electronic whiteboards) and software (per Company requirements) for both Company and Consultant's Personnel located in Consultant's main Project office in St. John's, Newfoundland and Labrador. Company will reimburse the Consultant for these costs.

Proponent shall provide a mark up percentage to be applied to equipment purchase cost as approved by Company.

Company will retain ownership of all equipment purchased by Proponent on its behalf. All equipment shall be new condition.

| Proposal Form B4 - Additional Rates | | |
|---|----------------------------|--------------------|
| <u>Office Space Facilities for Company Personnel</u> | | |
| <u>Main Project Office</u> | <u>Unit</u> | <u>Rate</u> |
| Based on a minimum of 75 Company Personnel (Final number of Company Personnel will be advised prior to award) | Month | |
| Cost for additional Company Personnel | Per Person/Per Month | |
| <u>Other E/P Location (Specify)</u> | | |
| 1 Person Office (c/w furniture) | Month | |
| 1 Person Partitioned Area / Cubicle c/w furniture | Month | |
| | | |
| | | |
| Percentage Mark-up for computer hardware and software purchases | | % |
| Note: Facilities and computer equipment to be in accordance with Company Facilities specifications included in Exhibit 5, Section 2. | | |

PROPOSAL FORM B5**LOCATION ALLOWANCES**

When Proponent's Personnel are required to perform the Services at locations other than their normal home location and where such relocations causes Proponent to incur additional costs which Company is satisfied that Proponent would not normally recover elsewhere through the provisions of the Agreement, then the Proponent shall be reimbursed these costs through location allowances.

Unless provided for elsewhere, the location allowances shall be fully inclusive of all additional costs incurred by the Proponent for providing Proponent's Personnel to perform the Services at each new location.

Location allowances shall be consistent with Proponent's current corporate relocation and assignment policies. Proponent must provide details of their policies including rotational travel scheme, if applicable.

Proponent shall propose location allowances, by location, using the following table. The factors which shall be considered in calculating location allowances are identified in the table.

| Proposal Form B5 - Location Allowances Table | |
|---|---|
| 1. Relocation From _____ to _____ | |
| <u>Item</u> | <u>Proposed Value</u> |
| Relocation Service Premium | _____ <i>% uplift on base salary (if necessary)</i> |
| Extended Work Week | _____ <i>if necessary</i> |
| Transportation Allowance | \$ _____ |
| Accommodation Rental (incl. furnishing) | \$ _____ |
| Relocation mob/demob lump sum | \$ _____ <i>(Mob / de-mobilization excl. travel to be invoiced 50% upon mobilization and 50% at demobilization)</i> |
| Subsistence Allowance | \$ _____ |
| Rotational travel | _____ <i>(economy fare billed at cost)</i> |
| Other | _____ <i>(To be proposed by Proponent if necessary)</i> |

| Proposal Form B5 - Location Allowances Table | |
|---|---|
| 2. Relocation From _____ to _____ | |
| <u>Item</u> | <u>Proposed Value</u> |
| Relocation Service Premium | _____ <i>% uplift on base salary (if necessary)</i> |
| Extended Work Week | _____ <i>If necessary</i> |
| Transportation Allowance | \$ _____ |
| Accommodation Rental (incl. furnishing) | \$ _____ |
| Relocation mob/demob lump sum | \$ _____ <i>(Mob / de-mobilization excl. travel to be invoiced 50% upon mobilization and 50% at demobilization)</i> |
| Subsistence Allowance | \$ _____ |
| Rotational travel | _____ <i>(economy fare billed at cost)</i> |
| Other | _____ <i>(To be proposed by Proponent if necessary)</i> |

PROPOSAL FORM B6

NEWFOUNDLAND AND LABRADOR BENEFITS

Proponent is required to complete the attached Newfoundland and Labrador Benefits questionnaire which will be used to assess the Newfoundland and Labrador Benefits content contained in Proponent's Proposal.

Extracts from this submission will be included in Exhibit 9 of the Agreement.

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1.0 Introduction

The following constitutes the Newfoundland and Labrador Benefits questionnaire for the Project. This questionnaire is used to assess the Newfoundland and Labrador Benefits content contained in Proponent's Proposal.

Proponent is required to respond to the questions/statements requested in this questionnaire in a submission that follows the format presented in the various sections herein. In addition, Proponent is required to complete Attachments A and B using instructions provided in sections 7.0 and 8.0. Failure to provide the information required may result in its Proposal being rejected. Accurate information, consistent with Canadian General Standards Board, is imperative. Information provided is subject to audit by Company.

2.0 Proponent's Understanding and Commitment to Newfoundland and Labrador Benefits

Proponent is asked to confirm all of the following:

- (a) Proponent's understanding of and commitment to Newfoundland and Labrador Benefits objectives and principles as outlined in Section 4.0
- (b) Proponent's understanding of and commitment to contracting & purchasing policy as outlined in Section 5.1
- (c) Proponent's understanding of and commitment to notification of foreign workers as outlined in Section 5.3
- (d) Proponent's understanding of and commitment to Newfoundland and Labrador Benefits reporting as outlined in Section 5.4
- (e) Proponent's understanding of and commitment to Gender Equity as outlined in Section 5.5
- (f) Proponent's understanding of and commitment to Diversity as outlined in Section 5.6
- (g) Proponent understands and commits to ensuring that all Subcontractors, Contractors and Suppliers engaged by Proponent must also commit to the same benefits undertakings as Proponent.

3.0 Resources Assigned To Newfoundland and Labrador Benefits Initiatives and Reporting

Proponent is asked to detail resources assigned by Proponent to ensure Newfoundland and Labrador Benefits initiatives and reporting will be adequately addressed, including all of the following:

- (a) Names and resumes of Personnel assigned to Newfoundland and Labrador Benefits initiatives and reporting;
- (b) Placement within the Proponent's organization of Personnel assigned to Newfoundland and Labrador Benefits initiatives and reporting; and
- (c) Percentage of time Personnel assigned to Newfoundland and Labrador Benefits initiatives and reporting will spend on benefits initiatives and reporting.

4.0 Project Benefits Objectives and Principles

4.1 General

The Project is committed to supporting the accrual of benefits for the people of Newfoundland and Labrador. However, the 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 application of Best Value in the acquisition of goods and services. Best Value is defined as a blend of total cost, quality, commitment to safety, technical suitability, credit worthiness, 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 Services and Work being performed for the Project:

- (a) Provide Suppliers and Contractors in Newfoundland and Labrador with full and fair opportunity to participate on a competitive basis in the supply of goods and services;
- (b) As necessary, carry out programs in Newfoundland and Labrador to promote education and training;
- (c) 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

4.2 Project Offices

Company and its EPCM Consultant(s) and Subcontractors will perform all engineering and project management, with the possible exception of specialized engineering, for the Project in the province of Newfoundland and Labrador.

Proponent shall establish its main Project office in St. John's, Newfoundland and Labrador. This Project office must accommodate Proponent's required resources to perform the Services and must accommodate Company's Project management team (based on a minimum of 75 people – final number will be advised prior to award).

With respect to specialized engineering, all reasonable efforts will be made to have specialized engineering performed in the province. In the event there is specialized engineering undertaken outside the province, Company will ensure that such work is done in full collaboration with local engineering effort and is integrated into the local engineering effort.

4.3 Work on the Generation Sites

A construction hiring protocol will be established for the generation stations. This protocol will be consistent with the Canadian Charter of Human Rights and Freedoms, as well as associated terms and conditions of environmental assessment ministerial approval. The protocol will implement commitments made in any executed IBA, followed by first consideration for employment for qualified residents of Labrador, followed by qualified residents of the Province, taking into account sections 5.5 and 5.6 below. Any collective agreements entered into by Company or its primary contractors shall contain provisions consistent with this protocol and those commitments.

4.4 Transmission construction

A construction hiring protocol will be established for the HVdc Transmission System construction. This protocol will be consistent with the Canadian Charter of Human Rights and Freedoms, as well as associated terms and conditions of environmental assessment ministerial approval. The protocol will implement any commitments made in any executed IBA, followed by first consideration for employment of qualified Residents of the Province, taking into account sections 5.5 and 5.6 below. Any collective agreements entered into by Company or its primary contractors shall contain provisions consistent with this protocol.

4.5 Gender Equity and Diversity

Company will develop and implement a Gender Equity Program and a Diversity Program for all Project activities in the Province for all phases of the Project.

(a) Gender Equity Program

The objectives of the Gender Equity Program will be to address employment equity for the Project, including access to employment opportunities for and employment of qualified women in the Project, with an emphasis on continuous improvement. The program will implement proactive programs and practices that contribute to the creation of an inclusive work environment and corporate culture. The program will promote accountability and responsibility for gender equity.

(b) Diversity Program

The objectives of the Diversity Program will be to address employment equity for the Project, including access to employment opportunities for and employment of qualified members of disadvantaged groups in the Project, with an emphasis on continuous improvement. The program will implement proactive programs and practices that contribute to the creation of an inclusive work environment and corporate culture. The program will promote accountability and responsibility for diversity.

5.0 Proponent's Obligations

This section outlines Proponent's obligations in support of the Project's benefits strategy.

5.1 Contracting and Purchasing Policy

Company has developed a contracting and purchasing policy for the Project. Company shall require that its primary contractors conform to this policy. This policy requires Company and its primary contractors to:

- (a) provide reasonable advance notice to the local supply and service community of all procurement opportunities;
- (b) become familiar with Newfoundland and Labrador supplier capabilities, and size and design packages in a manner which recognizes those capabilities;
- (c) communicate with Newfoundland and Labrador suppliers and contractors and when requested make reasonable efforts to guide them in qualifying for future proposals and contracts;

- (d) make the tendering and request for proposal processes, names and locations of key procurement personnel available to potential Newfoundland and Labrador suppliers and contractors where appropriate;
- (e) require benefits information as part of the tendering and request for proposal processes in sufficient detail to assess the benefits to be derived from a proposal or tender, including requiring bidders to complete a benefits questionnaire as part of that process;
- (f) communicate with unsuccessful proponents, when requested, to help the proponents better prepare for future opportunities.

5.2 Notification of Subcontract / Purchase Order Work

Proponent is advised that Company may require information pertaining to Subcontract and Contract work related to the Services and to the Work, if applicable. Company may, as required, designate certain Subcontracts and Contracts which Company will monitor and review the associated procurement process.

5.3 Notification of Foreign Workers

- (a) Proponent shall notify Company, ninety (90) days in advance of any requirement to bring foreign workers into Canada for Services or Work; and
- (b) Proponent shall comply with all immigration laws in any jurisdiction where Services and Work is performed including, without limitation, those with respect to the establishment of foreign worker application with Human Resource and Development Canada and Citizenship and Immigration Canada. Proponent shall provide to Company copies of any submission to Human Resources and Development Canada and Citizenship and Immigration Canada related to foreign workers.
- (c) Proponent shall be responsible for Canadian Personnel assigned to foreign countries for reasons pertaining to the provision of Services.

5.4 Newfoundland and Labrador Benefits Reporting

Company will be required to monitor and report on certain project activities related to procurement and employment. To assist in this effort, Proponent will be required to submit data reports on a monthly basis regarding expenditures, training, employment of underrepresented groups, residency and person hours by NOC Code for the project management, engineering and construction as applicable and other categories as determined by Company. The Proponent will also be required to submit quarterly qualitative reports on benefits initiatives; supplier development; gender equity; diversity

and procurement forecasting. Reports shall be submitted within 2 weeks of the end of the month or quarter to which it applies.

5.5 Gender Equity

Proponent shall be required to support and adhere to Company's Gender Equity Program, as agreed with the Province, outlined below.

- (a) The Gender Equity Program shall include a women's employment plan and business access strategy ("WEP") in which Company will establish quantitative goals for employment of women at all phases of the Project. Company will initially set such goals by taking into account the availability of women in particular occupational categories as identified by Statistics Canada in its Employment Equity Data Report. The WEP will institute ongoing programs and processes to facilitate employment and participation for women in all phases of the Project, and at all facilities, sites and offices in the Province where work performed by Company and its primary contractors relating to the Project is taking place.
- (b) The WEP will include the following provisions:
- Company will put in place the necessary organization resources to develop and implement the WEP;
 - Company will support training and recruitment programs for women in consultation with training and educational institutions in the Province;
 - Company will provide facilities for the Project that are accommodative of women, and will require a safe and respectful work environment;
 - Company will require that each primary contractor to the Project provide Company with a plan for compliance with the WEP, and will require that contracts related to the execution of the Project include an acknowledgement from the successful bidder that they are aware of the existence and importance of the WEP;
 - Company will identify and implement special measures to attract and secure employment of women in occupations where women are underrepresented, including setting longer term qualitative goals to employ more women in occupational areas where women are historically under-represented;
 - Company will develop an implementation schedule and will report on progress to the Province; and
 - Company will consult on development and progress on the WEP in an annual consultation with the Province and other stakeholders, including community groups.

5.6 Diversity Program

Proponent shall be required to support and adhere to Company's Diversity Program, as agreed with the Province, outlined below.

- (a) The Diversity Program shall include a diversity and business access strategy for disadvantaged groups ("Diversity Plan") in which Company will establish quantitative goals. The Diversity Plan will institute ongoing programs and processes to facilitate employment and participation for disadvantaged groups in all phases of the Project, and at all facilities, site and offices in the Province where work performed by Company and primary contractors relating to the Project is taking place.
- (b) The Diversity Plan will include the following provisions:
 - Company will put in place the necessary organization resources to develop and implement the Diversity Plan;
 - Company will support training and recruitment programs for disadvantaged groups in consultation with training and educational institutions in the Province;
 - Company will require that each primary contractor to the Project provide Company with a plan for compliance with the Diversity Plan, and will require that contracts related to the execution of the Project include an acknowledgement from successful bidder that they are aware of the existence and importance of the Diversity Plan;
 - Company will develop an implementation schedule and will report on progress to the Province; and
 - Company will consult on development and progress on the Diversity Plan in an annual consultation with the Province and other stakeholders, including community groups.

5.7 Project Offices

Company and its EPCM Consultant(s) and Subcontractors will perform all engineering and project management, with the possible exception of specialized engineering, for the Project in the province of Newfoundland and Labrador.

Proponent shall establish its main Project office in St. John's, Newfoundland and Labrador. This Project office must accommodate Proponent's required resources to

perform the Services and must accommodate Company's Project management team (based on a minimum of 75 people – final number will be advised prior to award).

With respect to specialized engineering, all reasonable efforts will be made to have specialized engineering performed in the province. In the event there is specialized engineering undertaken outside the province, Company will ensure that such work is done in full collaboration with local engineering effort and is integrated into the local engineering effort.

6.0 Newfoundland and Labrador Benefits Past Activities and Future Initiatives

Company is committed to ensuring optimal benefits to Newfoundland and Labrador. Consultants, Suppliers, Contractors and Subcontractors are in a strong position to enhance that ability. Proponent is therefore asked to respond to the following in detail:

6.1 Supplier Development Initiatives

Company is committed to optimal participation of Newfoundland and Labrador Suppliers and Contractors in the Project. Proponent is asked to detail past activities undertaken and any planned future activities directly associated with the Project that will be undertaken to develop Newfoundland and Labrador Suppliers and Contractors to successfully compete in heavy industrial projects. These can include but are not limited to:

- Joint ventures
- Subcontract opportunities
- Technology transfer
- Training investments
- Supplier development sessions
- Other special initiatives

6.2 Employee Development Initiatives

Proponent is asked to detail past activities and any future planned activities directly associated with the Project that aided or will aid the ability of Newfoundlanders and Labradorians to succeed in getting employment and progressing to more senior positions in heavy industrial projects. These can include but are not limited to the following:

- Succession planning
- Co-op/work placements
- Training/education - internal
- Investment in training/education institutions

- Job fairs
- Other special initiatives

6.3 Gender Equity

Company is committed to encouraging the training and participation of, and removing barriers to employment opportunities for, women. A Gender Equity Program will be developed and implemented for the Project. Proponent will be required to adhere to this Program. Collective agreement(s) for the Work will be negotiated with the intent to support access to training and employment opportunities for women's groups.

Proponent and its Subcontractors and Contractors are in a strong position to increase the participation of women in traditionally under-represented occupations. Proponent is asked to respond to the following:

- (a) Detail any past activities that aided in increasing participation rates of women in traditionally under-represented occupations of Proponent's workforce;
- (b) Detail any planned future initiatives, related to the Services you are submitting a Proposal for, to aid in the equitable adjustment of Proponent's work force;
- (c) Attach copies of any equity and/or harassment or discrimination policies relating to female workers in particular;
- (d) Detail Proponent's organizational capacity and procedures for employees to voluntarily self identify their gender so that Proponent can track level of success in diversifying its workforce on the basis of equity.

6.4 Diversity

Company is committed to encouraging the training and participation of groups that are under-represented and removing barriers to employment opportunities for such groups. A Diversity Program will be developed and implemented for the Project. Proponent will be required to adhere to this Program. Collective agreements will be negotiated with the intent to support access to training and employment opportunities for under-represented groups.

Under-represented groups include:

- Aboriginal peoples
- Persons with disabilities
- Visible minorities

Proponent and its Subcontractors and Contractors are in a strong position to increase the participation of under-represented groups. Proponent is asked to respond to the following:

- (a) Detail any past activities that aided in increasing participation rates of under-represented groups in occupations of Proponent's workforce or supply network;
- (b) Detail any planned future initiatives, related to the Services you are submitting a Proposal for, to aid in the diversification of Proponent's work force or supply network;
- (c) Attach copies of any harassment or discrimination policies relating to under-represented groups in particular;
- (d) Detail Proponent's organizational capacity and procedures for employees to voluntarily self identify themselves as a member of a designated under-represented group so that Proponent can track level of success in diversifying its workforce.

7.0 Newfoundland and Labrador Benefits Content – Person Hour Estimate

Proponent is required to provide an estimate of the labour (in person hours) used to complete the Services in terms of work location and residency of the workers using the forms in Attachment A.

8.0 Newfoundland and Labrador Benefits Content – Expenditure Estimate

Proponent is required to provide an estimate of the expenditure percentages associated with the Services in terms of Newfoundland and Labrador, Other Canadian and Foreign Content in the form provided in Attachment B.

A.0 Attachment A

A.1.0 Employment Table

Proponent shall provide, where applicable, the total estimated number of persons and the corresponding estimated number of person-hours anticipated to be utilized in completing this Scope of Services, categorized as follows:

Proponents Name: _____

| Attachment A - Employment Table (Person Hours and Number of Persons) | | | | | | | | | | |
|--|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
| Residency | | | | | | | | | | |
| Employment Category | Labrador | | Newfoundland | | Other Canada | | Foreign | | Total | |
| | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours |
| Project Management | | | | | | | | | | |
| Engineering Management | | | | | | | | | | |
| Procurement and Contract Management | | | | | | | | | | |
| Construction Management | | | | | | | | | | |
| Other | | | | | | | | | | |

| Attachment A - Employment Table (Person Hours and Number of Persons) | | | | | | | | | | |
|--|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
| Work Location | | | | | | | | | | |
| Employment Category | Labrador | | Newfoundland | | Other Canada | | Foreign | | Total | |
| | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours | # of Persons | # of Person Hours |
| Project Management | | | | | | | | | | |
| Engineering Management | | | | | | | | | | |
| Procurement and Contract Management | | | | | | | | | | |
| Construction Management | | | | | | | | | | |
| Other | | | | | | | | | | |

Note: If the occupation categories are not appropriate, Proponent may add categories accordingly.

B.0 Attachment B

B.1.0 Expenditure Table

Proponent shall provide, where applicable, an estimate of the expenditure percentages associated with the Services in terms of Newfoundland and Labrador, other Canadian and Foreign content as outlined in attachment B in relation to this Request for Proposal:

Proponent's Name: _____

| Table B - Expenditure Table | | | | | | |
|-----------------------------|------------------|-------------------------|------------|-------------|-----------|---------|
| Component | Location of Work | <u>% Content of Bid</u> | | | | |
| | | Newfoundland % | Labrador % | Other Cdn.% | Foreign % | Total % |
| Materials and Equipment | | | | | | |
| Direct Labour | | | | | | |
| Services | | | | | | |
| Overhead and Profit | | | | | | |
| Other | | | | | | |
| Total | | | | | | |

PROPOSAL FORM B7**ADDITIONAL COMMERCIAL INFORMATION****1.0 Miscellaneous Reimbursable Items**

Proponent shall identify any items proposed for reimbursement which Proponent would not normally recover elsewhere through provisions of the Agreement.

2.0 Escalation Proposal

The Fixed Fee component of compensation is not subject to escalation. Proponent shall propose its method to calculate escalation on reimbursable cost components.

3.0 Performance Incentives

At Company's sole option, Company may enter into discussions with Proponent to negotiate an incentive program. The purpose of such a program is for Proponent to assist Company in identifying opportunities associated with Company's objectives for the Project.

If agreement to implement such a program is reached, it will be fully developed, agreed and incorporated into the Agreement. Any such program may be separated into engineering and procurement services and construction management services.

Should Proponent wish to propose performance incentive program(s) for Company consideration, they should be presented in this Proposal Form B7.

Proponent shall present its incentive program(s) using the following framework:

- a) Incentive program attributes and/or desired outcomes
- b) Mechanism for implementing the incentive program
- c) Methods of measurement of attainment of performance targets
- d) Profits and payment schedules - Amount and type of profit, risks, etc, for the incentive program and associated payment schedules for any adopted incentive program
- e) Management of the incentive program - The number of incentive programs being negotiated can vary with the ongoing Project activities and they can be considered individually and/or in groups

4.0 Corporate Financial Data

Proponent shall provide copies of its 2007, 2008 and 2009 audited financial statements, including corresponding annual reports and management discussion and analysis. Proponent shall provide interim un-audited financial statements / information, if the last fiscal year ended is more than six (6) months prior to the submittal date of this Proposal.

Proponent shall provide bank clearance letters, as referenced herein, to each of its banks authorizing bankers to release credit information directly to Company.

5.0 Alternate Commercial Proposals / Options

Proponent may, in addition to the base Proposal, submit other alternate commercial Proposal arrangements where, in Proponent's opinion, such a Proposal may be of commercial benefit to Company.

Each alternate Proposal so offered by Proponent shall be accompanied by a fully priced commercial Proposal detailing the cost adjustment to the Proponent's base Proposal. The format of the commercial Proposal shall be structured in a manner that, if accepted by Company, can be integrated into the existing compensation structure presented in Exhibit 4.

Company shall be under no obligation to accept any such alternate Proposal.

6.0 Commercial Exceptions / Qualifications

Proponent shall respond signifying which of the following statements is correct:

1. Proponent accepts all commercial requirements of the Agreement, including the Agreement Articles, presented in the RFP and confirms that its Proposal is based on said requirements;

or

2. Proponent advises that its Proposal does not accept all commercial requirements of the Agreement, including the Agreement Articles, presented in the RFP and lists all such exceptions and qualifications to said requirements together with the reasons for such exceptions and qualifications for Company consideration.

Should Proponent signify Item 2 to be correct, Proponent shall record all such commercial exceptions, qualifications and proposed wording revisions and submit them as part of their Proposal. Exceptions or qualifications received after submittal of the Proposal will not be considered.

7.0 Travel, Overtime and Relocation Policies

Proponent shall provide, in its Proposal, its corporate policies and procedures related to travel, overtime and employee relocation which it intends to apply to the Project which shall be applicable to Proponent's Personnel including Subcontractors.

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. 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 Nalcor Energy, 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 Nalcor Energy 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: _____

SECTION 0.5

PART C – TECHNICAL PROPOSAL QUESTIONNAIRE

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1.0 Introduction

The Technical Proposal Questionnaire must be completed and submitted as part of the Proposal. The submitted questionnaire shall be referred to herein as the Technical Proposal. It will be evaluated by Company as part of Company's overall evaluation process.

Where applicable, information provided in the Technical Proposal will form part of the Agreement.

Part 2, Exhibit 3 describes the Services. However, Exhibit 3 is not a stand alone description of the Agreement scope of Services. The entire Agreement contains Consultant's obligations and must be considered by Proponent in completing the Technical Proposal Questionnaire.

2.0 Components and Development Options

As described in paragraph 0.0.5.2 of Part 1, Section 0.0, Proponent may submit a Proposal for the provision of Services for any or all of the four (4) discrete Components described in 0.0.1.3 (i) therein, as follows:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 2: Gull Island Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and/or dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Should Proponent submit a Proposal covering more than one Component, Proponent shall structure its Proposal in such a manner so as to allow Company to extract the technical information for each Component separately.

3.0 General Instructions

All sections of the questionnaire must be completed.

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

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

Some of the information requested in the questionnaire might be repetitive to information requested in other sections of this RFP. It is important that Proponent's response to this questionnaire be complete. Accordingly, if necessary, Proponent

should repeat any such information.

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

4.0 Execution Proposal

4.1 General

Subsequent to award of the Agreement, Consultant shall be required to prepare, in conjunction with Company and for Company's acceptance, a formal Execution Plan for the provision of Services and for the implementation of the Project.

The Technical Proposal shall include a detailed outline / summary of its proposed formal Execution Plan. The submission shall describe how the formal Execution Plan will encompass the Scope of Services as detailed in Part 2, Exhibit 3 and, in particular, shall describe how the requirements of the Coordination Procedures provided in Part 2, Exhibit 5 shall be encompassed. The submission shall provide sufficient detail so as to enable Company to fully assess Proponent's understanding of the Services and the Project, and to evaluate Proponent's approach, commitment and ability to provide the Services and to implement the Project.

As a minimum, the detailed outline / summary of the Execution Plan should address the items noted below.

Extracts from the Technical Proposal may form part of the Agreement.

4.2 Complete Scope of Services

The Technical Proposal shall fully detail and explain:

- a) How the implementation of the Project shall be organized and delivered;
- b) How each of the Services will be provided;
- c) When each of the Services will be started and completed;
- d) Where each of the Services will be provided and completed;
- e) Who, among Proponent, and if applicable, joint venture or consortium members, and candidate Subcontractors will have responsibility for each element of the Services; and
- f) Proponent's mobilization plan.

The Technical Proposal shall be a clear narrative supported as necessary by schematics, organization charts, tables, and diagrams in sufficient detail for Company to assess Proponent's overall intent and capability, and shall clearly define responsibilities of joint venture or consortium members, and / or Subcontractors, as applicable.

4.3 Specific Requirements

The Technical Proposal shall specifically address:

- a) Project objectives (critical success factors);
- b) Risk management approach and proponents view of key technical and execution risks for the Project;
- c) Project organization and execution strategy;
- d) Proponent's organization; (further detail regarding organization and Key Personnel shall be provided in response to question 6.0 herein);
- e) Overall roles and responsibilities (Proponent, joint venture or consortium members, Subcontractors, Contractors, Suppliers);
- f) General process of decision making within Project organization in consideration of all risks;
- g) Mobilization and staffing plan for all Project phases clearly identifying how personnel will be assigned to the various locations;
- h) Proponent's approach for managing the Muskrat Falls site or the Gull Island site;
- i) Project management systems and procedures;
- j) Cost control methodology;
- k) Planning and scheduling methodology;
- l) Information Management / document control;
- m) Interface management;
- n) Reporting;
- o) Procurement and contracting (further detail regarding procurement and contracting shall be provided in response to question 18.0 herein);
- p) Subcontractor management (further detail regarding Subcontractor management shall be provided in response to question 5.0 herein);
- q) Project Change Management, including changes to the Services;
- r) Accounting and invoicing;
- s) Quality management (further detail regarding Quality management shall be provided in response to question 8.0 herein);
- t) Health, Safety and Environmental (HSE) management (further detail regarding HSE management shall be provided in response to question 9.0 herein);
- u) Regulatory compliance;
- v) Engineering execution (methodology, resources and tools available);
- w) Construction strategy and Construction Management (methodology, resources and tools available) including recommendations on work shifts;
- x) Project Completions (methodology, resources and tools required);

- y) Project completion execution (site survey, as-built drawings, data books and other final contract documentation);
- z) Processes for inclusion and incorporation of:
 - Safety in design
 - Industry recognized value improvement practices
 - Company's asset management requirements
 - Constructability reviews (further detail regarding constructability and construction execution planning shall be provided in response to question 7.0 herein);
 - Productivity factors in construction planning and execution
 - Any other specific topic that Proponent deems critical to achieving maximum overall value for Company.
- aa) Labour Relations

4.4 Project Implementation Schedule(s)

Proponent shall provide, in its Technical Proposal, a summary schedule for the implementation of each discrete Component for which it is submitting a Proposal to provide Services. The summary schedule(s) provided by Proponent in its submission shall provide sufficient detail so as to demonstrate a solid understanding of the elements that comprise the respective Component and the associated linkages and dependencies as related to implementation. The summary schedule(s) shall show start dates, finishing dates and durations for all key engineering, procurement and construction activities, and shall include and align with Company's Milestone Dates as provided in Part 2, Exhibit 7.

Proponent's submission shall provide a narrative containing a description of what Proponent deems to be the critical path for each Component.

Proponent shall also indicate, on its schedule(s), the point wherein Proponent would be able to produce, for the implementation of each Component, a cost and schedule estimate with an accuracy of ACEI Class 3 Equivalent.

Proponent's summary schedule as provided in its Technical Proposal shall form the basis for Consultant's Project Control Schedule described in Part 2, Exhibit 5, Section 18.

5.0 Subcontractors

Proponent shall provide a complete listing and details of all proposed Subcontractors, including the details of the Services proposed to be subcontracted.

6.0 Organization and Key Personnel

6.1 General

Proponent shall provide sufficient detail with respect to Proponent's corporate

structure and proposed Project organization and Key Personnel to demonstrate a thorough understanding of the requirements for the provision of the Services and the satisfaction of all obligations of Consultant under the Agreement.

The specific information requirements shall be provided as appendices to each specific request in this section 6.0.

If Proponent is a joint venture or consortium, Proponent shall provide:

- A copy of its organizational structure showing all members of the joint venture or consortium;
- Details of the structural and governance arrangements; and
- Details of history of the arrangement completing similar scope as the Services of the Agreement.

6.2 Project Organization

Proponent shall provide, as an appendix to its response to this question, details of the Project-specific organization that Proponent proposes for the provision of the Services. The organizational structure shall be presented as a series of organization charts that clearly identify the lines of authority, reporting structure, and relationships for all Agreement management functions.

The organization charts shall be arranged to present the proposed organization for each Component and shall include, as a minimum:

- Overall Project management, inclusive of all Subcontract interfaces;
- Overall Project controls;
- Engineering Services management and execution;
- Procurement Services management and execution;
- Construction Management Services and execution;
- Overall Project Quality management;
- Overall Project HSE management;
- Project Completions execution;
- Information Management;
- Newfoundland and Labrador Benefits
- Labour relations
- Project completion execution.

The respective organization charts shall clearly identify:

- Proponent's proposed Key Personnel. Key Personnel shall be shown on the

organization charts. Where Proponent is a joint venture or consortium, the relevant employing member shall be named for each Key Personnel position;

- Any Subcontractor personnel that are proposed to be integrated into Proponent's project management organization;
- The organization of any nominated Subcontractor, including any Key Personnel of the Subcontractor;
- Identification of any expatriate personnel;
- Identification of positions that will need to relocate, and at what time in the Project Schedule the relocation will occur;
- Identification of specialist personnel.

As part of its submission, Proponent shall provide resumes of all personnel identified as management positions as well as resumes for all lead positions.

6.3 Key Personnel

Proponent shall provide the following with respect to its list of proposed Key Personnel:

- Roles and responsibilities, including detailed role descriptions.
- Resumes for all Key Personnel candidate nominations within Proponent's proposed organization together with any alternate candidate nominations.
- For each Key Personnel, confirmation of his/her availability and anticipated duration of assignment to the Services. This requirement applies to Key Personnel to be provided from Subcontractors.

Proponent's Key Personnel, as agreed with Company, shall form Exhibit 11 of the Agreement.

6.4 Specialist Personnel

It is recognized that certain specialist personnel will likely not be assigned to the Project on a full time basis and, accordingly, may not work out of the St. John's, Newfoundland and Labrador office. Proponent shall provide details as to how the specialist personnel will work within Proponent's team.

7.0 Constructability and Construction Execution Planning

Proponent shall identify its approach for embedding constructability and construction execution planning relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its organizational structure and processes for constructability and construction execution plan.

As part of its submission, Proponent shall discuss relevant examples and lessons learned from previous projects where the focus on constructability during design process contributed towards completing a quality project, on-time and on-budget. Proponent

shall clearly discuss its views on managing the following construction risk areas:

- Workforce productivity;
- Availability and retention of skilled labor;
- Winter work: and
- Logistics planning for a remote Site.

8.0 Quality Management

Proponent shall identify its approach to Quality management and performance relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its overall accountability for Project-wide quality.

As part of its submission, Proponent shall provide the tables of contents of its standard quality assurance and quality control procedures and detail how the Proponent's standard procedures will be developed into a Project specific Quality Plan suitable for provision of the Services and implementation of the Project.

9.0 Health, Safety, and Environment

Proponent shall identify its approach to HSE management and performance relative to the provision of the Services and implementation of the Project. Proponent shall discuss its experiences and lessons learned with respect to creating a safety culture in a large construction site with a number of contractors and a diverse, transient workforce. Proponent shall provide, with its Technical Proposal, relevant historical statistics.

The Technical Proposal shall clearly demonstrate its overall accountability for Project-wide HSE.

As part of its submission, Proponent shall provide the tables of contents of its proposed HSE procedures and shall detail how the Proponent's standard procedures will be developed into a project specific health and safety plans and environmental protection plans suitable for provision of the Services and implementation of the Project.

10.0 Person-hour Estimate

a) Provisional Person-hour Estimate Forms

Proponent shall provide details of its person-hour estimate(s) for the provision of the Services. The person-hour estimate(s) shall be provided on the Provisional Person-hour Estimate Forms C1, C2, C3 and C4 attached hereto.

b) Resource Loading Histograms

In addition to the information provided on the Provisional Person-hour Estimate Forms, Proponent shall provide histograms to display all estimated person-hours and estimated personnel resource loading from award of Agreement to the completion of the Project.

Details to be provided on the histograms include:

- Head office, any additional locations, and Site requirements to be shown separately.
- Mobilization at all locations to be shown separately.
- Information shown on a quarterly basis.
- Discrete personnel categories including:
 - Project management
 - Construction Management
 - Project Completions
 - Administrative support
 - Accounting
 - Project controls (planning / cost control / estimating)
 - Quality
 - HSE
 - Information Management
 - Human resources
 - Labour management
 - Engineering management
 - Engineering deliverables
 - Engineering follow-on / closeout (main office)
 - Engineering construction support (field)
 - Procurement
 - Contract management
 - Other

The estimated person-hours and estimated resource loading shall in every respect be consistent with Proponent's summary schedule(s) submitted under Section 4.4 herein.

11.0 Engagement with Company's Project Management Team

Effective communication between Company and Consultant is crucial to the success of the Project. The two organizations must remain aligned in all aspects of Project execution: scope of Services, technical specifications, Change Management, risk management, purchasing and contracting strategies, site access and use, HSE requirements, interfaces with ongoing operations, financial authorities, accounting procedures, progress reporting, public affairs, and so on. Direct communication between the Consultant's various functional departments and Company's counterparts is necessary and protocols must be developed. In general, all communications dealing with issues that affect the Project's cost, schedule, quality, safety, or reputation must be routed through Company's and Consultant's named representatives.

Proponent shall describe how it foresees working with and interacting with Company as described in Part 2, Exhibit 5.

12.0 Expectations of Company

Proponent shall outline its expectations of Company with respect to provision of the

Services.

13.0 Proponent's Facilities

Proponent shall provide details of all facilities that are proposed for the provision of the Services. The information provided shall cover both Proponent's facilities and the facilities of nominated Subcontractor(s). Details of Proponent's facilities, as agreed with Company as part of the formal Proposal clarification process, will be included in the Agreement as Exhibit 8.

The description of Proponent's facilities shall include full details describing the proposed central project management / engineering / procurement office, inclusive of:

- Location;
- Floor layout and seating arrangement;
- Office facilities and amenities;
- Communication and Information Systems/Information Technology (IS/IT) equipment; and
- Office arrangement and facilities for Company personnel.

14.0 Current, Booked and Projected Work Commitments

Proponent shall provide sufficient detail with respect to current and projected work commitments to clearly demonstrate the current available uncommitted capacity of Proponent's proposed resources to ensure that the Services can be satisfactorily performed and completed. The information provided shall cover Proponent's own resources and the resources of nominated Subcontractors.

The information provided by Proponent shall include;

- Current work in progress;
- Work awarded (booked) but not commenced;
- Work currently bid or in the process of being bid.

The information provided in its Technical Proposal shall be in the form of resource charts in histogram form and shall include summary project description detail and scheduled commitment timing and duration for all work or potential work.

Resource information portrayed in histogram form shall clearly identify the projected resource utilization in both person-hours and total resource numbers and its comparison with Proponent's maximum relevant resource capacity available.

15.0 Planning and Scheduling

Proponent shall identify its approach to planning and scheduling relative to the provision of the Services and implementation of the Project. The Technical Proposal

shall clearly demonstrate its understanding of the requirements outlined in Part 2, Exhibit 3 and Exhibit 5, Section 18.

As part of its submission, Proponent shall provide information regarding its planning and scheduling system as well as its processes and procedures proposed for the provision of the Services.

16.0 Cost Management

Proponent shall identify its approach to cost management relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its understanding of the requirements outlined in Part 2, Exhibit 3 and Exhibit 5, Section 7.

As part of its submission, Proponent shall provide information regarding its proposed systems, processes and procedures proposed for the provision of the Services and, in particular, it shall describe the interfaces between its cost control system and other project management tools and systems.

17.0 Progress Measurement and Forecasting

Proponent shall identify its approach to progress measurement and forecasting relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its understanding of the requirements outlined in Part 2, Exhibit 3 and Exhibit 5.

18.0 Procurement and Contracting

Proponent shall identify its approach to procurement and contracting relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its understanding of the requirements outlined in Part 2, Exhibit 3 and Exhibit 5, Section 6.

The Technical Proposal shall provide the following:

- a) A list of processes and/or procedure documents (titles only) that Proponent proposes to use to perform contracting, procurement, and materials management;
- b) Overview of the integrated materials management system proposed for the Project;
- c) Description of the process used to identify and qualify Contractors and Suppliers for inclusion in any bid lists for Procured Goods and Contracts;
- d) Description of Proponent's experience with managing industrial benefit requirements of a Project including experience with aboriginal groups.

19.0 Staffing and Interfacing with Home Office

The Technical Proposal shall provide the following:

- a) Confirmation whether proposed personnel are already employed by Proponent, and their willingness to relocate to St. John's, Newfoundland. (if required);
- b) Information regarding Proponent's current staffing levels at its primary location(s) for providing services including an indication of how much of its current staffing levels are committed to other projects;
- c) Description of how it will manage resources between its principle place of business and the Newfoundland project office (if applicable);
- d) Description of any personnel recruitment requirements anticipated to support the Agreement including an estimated time line necessary to fulfill the required resource complement;
- e) Confirmation of the percentage of the Services that would be staffed by Newfoundland and Labrador resources.

20.0 Computer Programs, Models and Specialist Software

Proponent shall describe the rationale and details of all computer programs, models and specialist software it proposes to employ in the execution of the Services.

21.0 Information Management

Proponent shall, in its Technical Proposal, describe how it will meet the requirements of Part 2 Exhibit 3 and, in particular, Part 2 Exhibit 5, Section 16. The Technical Proposal shall, in particular:

- a) List and briefly describe the proposed Information Management related processes for information creation/capture, management and access;
- b) Describe the primary applications (application names, versions) that are proposed for the delivery of the Services;
- c) Describe the primary applications that are proposed to support project management functions. (e.g. cost, scheduling, procurement and materials management, document control, etc.);
- d) List Information Management support expertise currently in-house.

22.0 Human Resource Planning

Proponent shall, in its Technical Proposal, describe potential areas where it anticipates difficulty in supplying personnel from the market place, and its plan(s) to address the identified supply / demand gaps.

23.0 Employment Terms and Conditions

Proponent shall provide an overview of its proposed employment policies (table of contents) that will be applicable to Proponent and to Proponent's Subcontractors.

24.0 Labour Management

Proponent shall identify its approach to labour management issues relative to the provision of the Services and implementation of the Project. The Technical Proposal shall clearly demonstrate its understanding of the requirements outlined in Part 2, Exhibit 3 and Exhibit 5.

Proponent shall provide the following information:

- a) Construction labour framework – Recommended model, including reasons for recommendation, for industrial relations management, (i.e., project agreement with traditional trades or other model);
- b) Labour/human resource (HR) management plan – Outline of type of labour/HR plan that would be recommended. This shall include a brief description of key policies, procedures, rules, etc. Also included shall be an outline of the execution plan for labour/HR. In this regard, an outline of how the interface between Company and Contractors would be structured shall be described;
- c) Linkage of contracting strategy to labour relations management – Description of how the labour relations management plan will be linked to contracting strategy to ensure that Contractors adopt Consultant's and Company's overall philosophy in relation to safety, respectful work environment and productivity;
- d) Supervisory orientation/training – Description of what, if any, training or orientation would be recommended for all supervisors coming on Site so as to ensure safety, industrial relations and productivity are being managed in alignment with Consultant's and Company's philosophy;
- e) Employee orientation plan – Recommended components of a comprehensive employee site orientation plan. Proponent shall provide an outline of its experience in this area and examples of materials they have developed, such as site handbooks;
- f) Labour availability – Description of what forms of contingency planning Proponent would recommend in the event of a labour shortage in any of the key trades or non-union disciplines;
- g) Aboriginal labour relations – In respect of Part 1, Part B, Section 0.4 Form B6, Proponent shall provide a description of Proponent's experience with interacting with Aboriginal communities, including a description of Proponent's track record in this area. A description of special features, if any, to the labour relations management plan Proponent would recommend to ensure Company's commitment to Aboriginal communities is met or exceeded should be provided;

- h) Newfoundland and Labrador hiring and Newfoundland and Labrador Benefits – In respect of Part 1, Part B, Section 0.4 Form B6, Proponent shall provide an outline of what steps Proponent would take to ensure participation of Newfoundland and Labrador residents and providing benefits to local communities in Labrador. Proponent shall provide a description of its experience and track record in this area;
- i) Diversity – In respect of Part 1, Part B, Section 0.4 Form B6, Proponent shall provide a description of Proponent’s philosophy in relation to diversity including a description of how it recommends that the diversity commitments and plan of Company be interlinked with the labour relations management plan to ensure targets and commitments are met or exceeded.

Component 1 - Muskrat Falls Hydroelectric Development
Form C1 - Provisional Person-hour Estimate

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | | | |
|-----|---------------|--|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------|-------------------|---------------------|--|--|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | | Labour Management | Project Completions | | |
| 1 | Muskrat Falls | General | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Construction Accomodation Complex | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Reservoir Preparation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Dams and Cofferdams | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | North Spur Stabilization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gated Spillway Structure | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Approach Channel | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Powerhouse Tailrace | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Powerhouse, Intake and Penstocks | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Turbines / Generators and Balance of Plant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Churchill Falls Switchyard Extension | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gull Island Switchyard | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Muskrat Falls Switchyard | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Grand Total | 0 | | | | | | | | 0 | | | 0 | | 0 | | | | | | | | | | 0 | 0 | | |

Notes:
1. The Physical Breakdown listing contains the major items only. It is not intended to be an exhaustive listing.

**Component 2 - Gull Island Hydroelectric Development
Form C2 - Provisional Person-hour Estimate**

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | | |
|-----|-------------|--|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------|-------------------|---------------------|---|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | | Labour Management | Project Completions | |
| 2 | Gull Island | General | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Permanent Accommodation Building | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Construction Accommodation Complex | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Reservoir Preparation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Diversion | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Main Dam and Cofferdams | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Spillway | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Approach Channel | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Intake and Penstocks | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Powerhouse and Tailrace | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Turbines / Generators and Balance of Plant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Churchill Falls Switchyard Extension | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gull Island Switchyard | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Grand Total | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:
1. The Physical Breakdown listing contains the major items only. It is not intended to be an exhaustive listing.

Component 3 - HVdc Specialties
Form C3 - Provisional Person-hour Estimate

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | | |
|-----|------------------|---|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------|-------------------|---------------------|---|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | | Labour Management | Project Completions | |
| 3 | HVdc Specialties | General | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Gull Island Converter Station | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Soldiers Pond Converter Station | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Electrode Labrador | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Electrode Newfoundland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | HVdc Transition Compound Labrador | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | HVdc Transition Compound Newfoundland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Grand Total | 0 | | | | | | | | 0 | | | 0 | | 0 | | | | | | | | | | | 0 | 0 |

Notes:
1. The Physical Breakdown listing contains the major items only. It is not intended to be an exhaustive listing.

Component 4 - Overland Transmission
Form C4 - Provisional Person-hour Estimate

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | |
|-----|---|--|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------------------|---------------------|-------|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Labour Management | Project Completions | Other |
| 4a | Overland Transmission: Gull Island to Soldiers Pond | General | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Construction Accomodation | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DC Transmission: Gull Island to Strait of Belle Isle | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DC Transmission: Strait of Belle Isle to Soldiers Pond | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Electrode Line Labrador | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Electrode Line Newfoundland | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Grand Total | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | |
|-----|---|---|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------------------|---------------------|-------|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Labour Management | Project Completions | Other |
| 4b | Overland Transmission: Muskrat Falls to Gull Island | General | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Construction Accomodation | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | AC Transmission: Muskrat Falls to Gull Island | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Grand Total | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |

| No. | Component | Component Physical Breakdown (See Note 1) | Project Management | | | | | | | | | Engineering | | | | Procurement and Contract Management | | Construction Management | | | | | | | Other | | |
|-----|---|---|----------------------------|-------------------------|------------------------|------------|---|-----|---------|------------------------|-----------------|-------------------|------------------------|--------------------------|---|--|-------------|-------------------------|-------------------------|-------------------------|---|-----|---------|------------------------|-------------------|---------------------|-------|
| | | | Overall Project Management | Construction Management | Administrative Support | Accounting | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Human Resources | Labour Management | Engineering Management | Engineering Deliverables | Engineering Follow On / Close Out (Main Office) | Engineering Construction Support (Field) | Procurement | Contract Management | Construction Management | Administrative Services | Project Controls (Includes: Planning/Cost Control/Estimating) | HSE | Quality | Information Management | Labour Management | Project Completions | Other |
| 4c | Overland Transmission: Gull Island to Churchill Falls | General | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Regional and Site Access | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Construction Accomodation | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | AC Transmission: Gull Island to Churchill Falls | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Other Provisional Hours | | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| | Sub Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Total | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Grand Total | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:
1. The Physical Breakdown listing contains the major items only. It is not intended to be an exhaustive listing.

AGREEMENT LC-G-002

BETWEEN

[COMPANY]

AND

[CONSULTANT]

FOR

ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT SERVICES

FOR THE

[]

Agreement for the Engineering, Procurement and Construction Management Services

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Exhibit 11 Key Personnel

ENGINEERING, PROCUREMENT AND CONSTRUCTION MANAGEMENT SERVICES AGREEMENT

THIS AGREEMENT is made effective as of [* _____] (“Agreement”)

BETWEEN:

[NALCOR ENERGY] a body corporate constituted pursuant to the Energy Corporation Act, 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”)

(“Company”)

AND:

[*NAME OF CONSULTANT] of * _____

(“Consultant”)

WHEREAS:

- A. The Company requires the services of Consultant to provide engineering, procurement and construction management services as described in Exhibit 3;
- B. The Company wishes to retain and appoint the Consultant to perform the Services for the LCP;
- C. The Consultant confirms that it is qualified to perform the Services and agrees to enter into this Agreement and to perform the Services on the terms and conditions contained in this Agreement.

NOW THEREFORE in consideration of, among other things, the mutual promises contained in the Agreement, the Parties agree as follows:

1.0 DEFINITIONS AND INTERPRETATION

1.1 Definitions

Unless the context otherwise expressly requires, in the Agreement:

- 1.1.1 “Affiliate or Affiliate(s)” has the meaning given to affiliate in the Canada Business Corporation Act, R.S.C.1985. C-44;
- 1.1.2 “Agreement” means this document, including any Exhibits attached hereto as referenced in Article 1.2.1.
- 1.1.3 “Agreement IP” means all Intellectual Property Rights (present or future) created, discovered or coming into existence as a result of, for the purpose of, or

in connection with the performance of the Services or performance of the Agreement including all Intellectual Property Rights in anything developed by the Consultant in performing the Services, including that which is developed using Consultant's IP;

1.1.4 "Agreement Material" means all Documentation which is:

- (a) prepared, or required to be prepared, by or on behalf of the Consultant under the Agreement;
- (b) delivered, or required to be delivered, by or on behalf of the Consultant under the Agreement to Company; or
- (c) incorporated into any Documentation described in paragraphs (a) or (b) above;

1.1.5 "Application for Payment" has the meaning given in Article 12.0;

1.1.6 "Application for Final Payment" has the meaning given to it in Article 12.5.1(a);

1.1.7 "Authority" means any:

- (a) government or government department or agency;
- (b) municipality, local government authority or council;
- (c) other statutory authority;
- (d) fiscal or judicial body, commission, board, tribunal or agency; or
- (e) other person or body;

(excluding the Company) having jurisdiction or authority in any way over the subject matter of the Agreement including a right to impose a requirement or whose consent is required with respect to the Project or the Services;

1.1.8 "Bank" means "Bank of Canada";

1.1.9 "Business Day" means a day that is not a Saturday, Sunday or any other day which is a statutory holiday in the place where an action is to be performed or a payment is to be made;

1.1.10 "Certificate of Release" has the meaning given in Article 12.5.1;

1.1.11 "Change" means an addition, substitution, deletion, variation, modification, cancellation or omission of part or all of the Services as described in and authorized by a Change Order or Change Request;

- 1.1.12 “Change Proposal” means a written proposal signed by the Consultant’s Representative and issued to the Company’s Representative in writing for consideration by the Company, requesting additional cost or schedule compensation in response to a Company directed or contemplated Change Request;
- 1.1.13 “Change Request” means a written instruction signed by Company’s Representative directing the Consultant to proceed with a Change or the preparation of a Change Proposal;
- 1.1.14 “Change Order” means a Change to the Agreement, authorized in writing and signed by both the Company’s Representative and Consultant’s Representative;
- 1.1.15 “Claim” includes any claim, action, suit, demand or proceeding of any nature claiming any relief or remedy or for payment of money (including damages):
- (a) under, arising out of, or in any way connected with the Agreement, the Services, the Project, any direction of Company’s Representative, or either Party’s conduct before the Agreement; or
 - (b) otherwise at law or in equity, including by statute, in tort (whether for negligence, negligent misrepresentation or otherwise); or
 - (c) for restitution;
- 1.1.16 “Company” means Nalcor Energy and any of its successors or assigns;
- 1.1.17 “Company IP” means the Intellectual Property Rights of Company which:
- (a) are in existence at the Effective Date; or
 - (b) come into existence after the Effective Date,
- which have been, or are, created by or on behalf of Company and which are delivered or made available to the Consultant or its Personnel in connection with the Agreement;
- 1.1.18 “Company’s Confidential Information” means the Agreement and any information (in whatever form) or Documentation of a confidential nature (or which the Consultant or its Personnel ought reasonably to know to be confidential) which relates to the business, affairs or activities of Company including information comprised in Intellectual Property Rights of Company and information of third persons which is required to be kept confidential and which:
- (a) is disclosed to the Consultant or its Personnel by or on behalf of Company;
 - (b) is generated by the Consultant or its Personnel in performing the Services; or

- (c) otherwise comes to the knowledge of the Consultant or its Personnel;
- 1.1.19 “Construction Management Services” means those services described in Exhibit 3 and provided by Consultant for the construction management of the Project.
- 1.1.20 “Consultant” means * _____ and any of its successors or assigns;
- 1.1.21 “Consultant’s Confidential Information” means the Agreement, and any information (in whatever form) or Documentation of a confidential nature (or which Company or its Personnel ought reasonably to know to be confidential) which relates to the business, affairs or activities of the Consultant (including in relation to the Agreement) including information comprised in Intellectual Property Rights of the Consultant and information of third persons which is required to be kept confidential and which:
- (a) is disclosed to Company or its Personnel by or on behalf of the Consultant;
 - (b) is generated by Company or its Personnel from such confidential information; or
 - (c) otherwise comes to the knowledge of Company or its Personnel;
- 1.1.22 “Consultant’s IP” means the Consultant’s Intellectual Property Rights which:
- (a) are in existence at the Effective Date; or
 - (b) come into existence after the Effective Date otherwise than in connection with the Agreement;
- 1.1.23 “Contract” means a contract (including a purchase order) entered into by Company, or by the Consultant on behalf of Company, and a Contractor for Work.
- 1.1.24 “Contract Costs” means the sum of all amounts payable to Contractors for performing the Contracts;
- 1.1.25 “Contractor” means a person, other than the Consultant and regular employees or temporary employees of Company, who enters into a Contract with Company and Contractor includes Supplier;
- 1.1.26 “Cost of Services” means the monetary compensation paid or payable to the Consultant by Company under the Agreement for the performance of the Services;
- 1.1.27 “Court” means a court of competent jurisdiction and includes the Supreme Court of Canada;
- 1.1.28 “Defective Services” means:

- (a) any failure to perform any Services in accordance with, and to the standards required by, the Agreement; or
 - (b) any error, defect, deficiency or non-conformance in the Services; or
 - (c) an omission to perform any Services;
- 1.1.29 “Detailed Design” means the detailed design to be undertaken by the Consultant in accordance with the Agreement to produce all necessary detailed engineering designs and Documentation sufficient for the procurement, installation, construction and commissioning of the Project or the Work;
- 1.1.30 “Detailed Design Documentation” means the Documentation required to be prepared by the Consultant as part of the Services and, where applicable, to permit the tendering of Contracts;
- 1.1.31 “Direction” or “direction” includes any agreement, approval, authorization, certificate, decision, demand, determination, direction, instruction, notice, notification, order, permission, consent, rejection, request or requirement;
- 1.1.32 “Disclosing Party” has the meaning given in Article 22.0;
- 1.1.33 “Documentation” means any and all information whether in hard copy, electronic or other type of media, and includes software (including source code and object code versions) manuals, diagrams, graphs, charts, projections, specifications, estimates, records, concepts, documents, data, accounts, plans, drawings, sketches, formulae, designs, methods, techniques, processes, supplier lists, price lists, market research information, correspondence, letters and papers of every description including all copies of and extracts from the same;
- 1.1.34 “EPCM” means Engineering, Procurement and Construction Management;
- 1.1.35 “Effective Date” means the date and year above-written on the first page of the Agreement that contains the recitals;
- 1.1.36 “Engineering Services” means those services as described in Exhibit 3 and provided by Consultant for the Detailed Design, planning and engineering of the Project;
- 1.1.37 “Exhibit” means an exhibit attached to the Agreement at the Effective Date;
- 1.1.38 “Goods” means any materials, equipment, supplies, machinery, and other things used which are to be incorporated in the Project, or are to be consumed in the course of the Project or execution of the Work and does not mean Procured Goods;
- 1.1.39 “Good Utility Practice” means the practices, methods and acts engaged in, or approved by, a significant portion of the electrical utility industry in North

America, or any of the practices, methods and acts which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, are expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to optimum practice, method or act to the exclusion of all others, but rather to include all practices, methods or acts generally accepted in North America;

- 1.1.40 “GST” means the Goods and Services Sales Tax, which is a value added or sales tax implemented by the government of Canada, under the Goods and Services Tax under Part IX of the *Excise Tax Act*, R.S.C. 1985, c. E 15, as amended;
- 1.1.41 “HST” means the Harmonized Sales Tax, which is the single value added or sales tax that is the result of the governments of Canada, British Columbia, Nova Scotia, New Brunswick, Newfoundland and Labrador and Ontario harmonizing provincial retail sales taxes in those provinces with the federal Goods and Services Tax under Part IX of the *Excise Tax Act*, R.S.C. 1985, c. E 15, as amended;
- 1.1.42 “Intellectual Property Rights” means all industrial and intellectual property rights whether protected by statute, at common law or in equity, including all copyright and similar rights which may subsist, or after the Effective Date subsist, in works or other subject matter, rights in relation to inventions (including all patents and patent applications), trade secrets and know-how, rights in relation to designs (whether or not registerable), rights in relation to registered and unregistered trade marks, circuit layout designs and rights in relation to circuit layouts, but excludes non-assignable moral rights and similar non-assignable personal rights of authors and producers;
- 1.1.43 “Key Personnel” means Personnel deemed essential for the successful provision of the Services. Key Personnel are listed in Exhibit 11;
- 1.1.44 “LCP” means Lower Churchill Project;
- 1.1.45 “Law” means all domestic or foreign, national, federal, provincial, state, territorial, regional, municipal, or local statutes, laws, by-laws, rules, regulations, codes (including design and building codes), ordinances, judgments, decrees, writs, administrative interpretations, guidelines, policies, injunctions, orders or the like, of any Authority, and the interpretations thereof, applicable to the performance of the Services (including applicable to the use by the Company of the Documentation generated by the Consultant for the construction of the Project), any law in force from time to time, as amended, consolidated, supplemented or replaced, including:
- (a) any legislation, judgment, rule of common law or equity or rule of any applicable stock exchange; and

- (b) any regulation, rule, statutory instrument, by-law or other subordinate legislation made under any law;
- 1.1.46 “Liability” means any Claim, debt, obligation, liability, loss, expense, cost and damage of any kind and however arising, including Liquidated Damages, fines and interest and including those which are prospective or contingent and those the amount of which is not ascertained or ascertainable;
- 1.1.47 “Liquidated Damages”, are not a penalty but represent the amount(s) agreed to be paid by the Consultant to the Company as the result of the happening of a specified event, which amount(s) have been agreed by the Consultant and the Company to represent a genuine and reasonable pre-estimate of the damages that the Company will suffer as a result of the happening of the specified event;
- 1.1.48 “Milestone Date” means the date designated as such in the Project Milestone Schedule;
- 1.1.49 “Other Consultants” means all consultants other than the Consultant engaged or to be engaged by or on behalf of Company for the performance of the Services or part of the Services or the LCP or the Project and any substitute or replacement of those Other Consultants;
- 1.1.50 “Party” means either Company or the Consultant as the context dictates;
- 1.1.51 “Parties” means both Company and the Consultant;
- 1.1.52 “Personnel” means:
- (a) in relation to the Consultant, any of its employees, Subcontractors (including Subcontractors’ Personnel), agents and representatives involved either directly or indirectly in the performance of the Consultant’s obligations under the Agreement;
- (b) in relation to Company, any of its past or present officers, employees, agents or representatives; and
- (c) in relation to a Subcontractor, any of its employees, agents or representatives involved either directly or indirectly in the performance of the Consultant’s obligations under the Agreement;
- 1.1.53 “Prime Rate” means the Bank’s prime commercial lending rate of interest on Canadian funds, as designated from time to time by the Bank’s head office in Canada;
- 1.1.54 “Privacy Law” means the *Access to Information and Protection of Privacy Act*, S.N.L. 2002 c. A-1.1, and all other applicable laws federal or provincial relating to the privacy, confidentiality or use of any information about individuals;

- 1.1.55 “Procured Goods” means goods, supplies, materials or equipment obtained for incorporation in, or to perform, the Work, and procured by the Consultant as part of its Procurement Services;
- 1.1.56 “Procurement Services” means those services as described in Exhibit 3 for procurement of Procured Goods and Contracts;
- 1.1.57 “Project” means the one or more discrete Components of the overall LCP, as described in Exhibit 2, for which Consultant shall provide Services. The term Project does not refer to the overall LCP;
- 1.1.58 “Project Budget” means the aggregate of the Services Budget and the Sanction Cost Estimate for the Work;
- 1.1.59 “Project Milestone Schedule” means the schedule as described in Exhibit 7;
- 1.1.60 “Receiving Party” has the meaning given in Article 22.0;
- 1.1.61 “Reimbursable Costs” means the costs related to the performance of the Services to which the Consultant is entitled to be paid in accordance with and subject to Exhibit 4;
- 1.1.62 “Representative” means Company’s Representative or Consultant’s Representative (as referenced in Article 3.0 and article 4.0 herein);
- 1.1.63 “Sanction Cost Estimate “ means the detailed cost estimate prepared to acquire full funding or release of the Project, which becomes the Project execution baseline against which all actual costs and resources for the Work will be monitored for variations;
- 1.1.64 “Services” means all Engineering Services, Procurement Services, Construction Management Services, and other project management services described in or reasonably inferable from Exhibit 3 - Scope of Services, together with such other services incidental thereto as would ordinarily be provided by a professional consultant exercising all due skill and expertise in the performance of services such as or similar to those described in or reasonably inferable from Exhibit 3 in connection with a project such as or similar to the Project, as such Services may be amended, varied, supplemented, added to and deleted from in accordance with any Change Orders and Change Requests issued by the Company;
- 1.1.65 “Services Budget” means a detailed control estimate of the Cost of Services to be paid by Company to the Consultant for the performance of the Services in respect of the Project;
- 1.1.66 “Services IP” means the Agreement IP and any Consultant’s IP licensed to Company under Article 17.2;

- 1.1.67 “Site” means the land, premises and other places made accessible to the Consultant for the purpose of the Agreement or the land, premises and other places on, under, in or through which the Project is to be constructed, installed or carried out or upon which the Services are to be executed and includes any other place as may be specifically designated by Company as forming part of the Site;
- 1.1.68 “Standards” means (in order of precedence):
- (a) National Building Code of Canada;
 - (b) standards used by Nalcor Energy;
 - (c) standards promulgated or published by the following (in order of precedence):
 - (i) Canadian Standards Association;
 - (ii) Canadian Commission on Building and Fire Codes;
 - (iii) Canadian Radio Television and Telecommunications Commission;
 - (iv) Institute of Electrical and Electronics Engineers;
 - (v) Canadian Electricity Association; and
 - (vi) American National Standards Institute;
 - (d) other USA, North American or international standards as are generally recognized, accepted and followed, or which by custom of the industry are recommended for major projects; and
 - (e) such other standards as the Parties may from time to time agree upon in writing.
- 1.1.69 “Subcontractor” means any person engaged by the Consultant to perform any part of the Consultant’s obligations under the Agreement and includes a supplier of the Consultant;
- 1.1.70 “Subcontract” means any agreement made or to be made between the Consultant and any Subcontractor for any part of the Agreement;
- 1.1.71 “Supplier” means any vendor / manufacturer who enters into a Contract (including a purchase order) with Company for Procured Goods;
- 1.1.72 “Taxes” means any and all taxes, levies, imposts, duties, customs duties, stamp duties, fees, withholdings, assessments, deductions or charges whatsoever (other than GST and HST) imposed, assessed, levied or collected by any Authority, together with interest including occupational, excise, unemployment, ownership, sales, gross receipts, income taxes, payroll taxes, employer

contributions (both statutory and otherwise) and workers’ compensation payments and contributions;

1.1.73 “Termination Date” means the earlier of the date on which written termination of the Agreement by the Company is to take effect, the completion of all Services, and the fulfillment and satisfaction by the Consultant of all obligations and liabilities under the Agreement;

1.1.74 “Work” means any work or undertaking to be carried out for the Project under any Contract by a Contractor;

1.2 Interpretation

1.2.1 The Agreement is comprised only of this executed agreement and the following documents, all of which are hereby incorporated by reference into the Agreement to the same extent and for the same purposes as if repeated verbatim herein:

| <u>Exhibit No.</u> | <u>Description</u> |
|--------------------|--|
| 1 | Supplementary Definitions and Interpretation |
| 2 | Project Description |
| 3 | Scope of Services |
| 4 | Compensation |
| 5 | Coordination Procedures |
| 6 | Company Supplied Data |
| 7 | Project Milestone Schedule |
| 8 | Consultant’s Facilities |
| 9 | Newfoundland and Labrador Benefits |
| 10 | Form of Parent Company Guarantee |
| 11 | Key Personnel |

1.2.2 The doctrine of *contra proferentem* shall not apply in the interpretation of this Agreement, meaning that if there is any ambiguous language in this document it shall not be interpreted more strongly against the Party who prepared or drafted the ambiguous language.

1.2.3 Except for those specific and limited parts of the Consultant’s Proposal, if any, expressly incorporated by reference into the Agreement as an Exhibit or part of an Exhibit, the Consultant’s Proposal is superseded entirely by the Agreement, and shall not be relied upon or used to interpret or qualify the scope of the Services, to interpret or qualify any obligations or liabilities of the Consultant, or to interpret or qualify or limit anything in the Agreement.

1.2.4 Unless the context otherwise expressly requires, in the Agreement:

- (a) reference to parts, sections, or exhibits are a reference to them of, in and to the Agreement, and a reference to the Agreement includes all Exhibits;
- (b) reference to the Agreement is deemed to include the Agreement as amended, novated, supplemented, varied or replaced from time to time;
- (c) “includes” and “including”, whether or not used with the words “without limitation” or “but not limited to”, shall not be construed to be limited by the specific enumeration of items but shall in all cases be without limitation and construed and interpreted to mean “includes without limitation” and including without limitation”;
- (d) the singular includes the plural and conversely;
- (e) a gender includes all genders;
- (f) reference to any Act or legislation, or to a provision of an Act or legislation, is to the Act or legislation as amended and includes any statutory modification or re-enactment of it, a legislative provision substituted for it and any regulation, subordinate legislation or other statutory instrument issued under it;
- (g) reference to any Party includes that Party’s executors, administrators, substitutes (including, but not limited to, persons taking by novation), successors and permitted assigns;
- (h) if an act is required to be done on a specified day which is not a Business Day then the act shall be done instead on the next Business Day;
- (i) reference to a day, month or year is a reference to a calendar day, calendar month or a calendar year;
- (j) reference to “C\$”, “CD” or “CAD” is to Canadian currency;
- (k) the phrase “all reasonable efforts” or similar expressions when used in connection with an obligation of either Party, means taking all commercially reasonable steps to achieve the objective and to fulfil the obligation in a timely manner and, in any event, taking those steps and making the efforts that would be taken or made by a reasonable and prudent person in comparable circumstances but where the whole of the benefit or detriment of the obligation and where all the results of taking such steps and efforts accrued solely to that person’s own benefit or detriment;
- (l) reference to a person (including a Party) includes an individual, company, other body corporate, association, partnership, firm, joint venture, trust or Authority;
- (m) if a word or phrase is defined, its other grammatical forms have a corresponding meaning;

- (n) reference to conduct includes an omission, statement or undertaking, whether or not in writing;
- (o) reference to time is to local time in St. John's, Newfoundland and Labrador;
- (p) reference to a document includes all amendments or supplements to, or replacements or novations of, that document and, in the case of the Agreement, means only those amendments, supplements, replacements or novations that are in writing, expressly permitted or contemplated by the terms of the Agreement and signed by a Representative of a Party authorized under this Agreement to make such amendment, supplement, replacement or novation;
- (q) reference to an agreement or contract, other than the Agreement, includes an undertaking, deed, agreement or legally enforceable arrangement or understanding whether or not in writing;
- (r) reference to a party to a document includes that party's executors, administrators, substitutes (including, but not limited to persons taking by novation), successors and permitted assigns;
- (s) reference to a body, other than a Party (including an institute, council, association or Authority), whether statutory or not:
 - (i) which ceases to exist; or
 - (ii) whose powers or functions are transferred to another body,is a reference to the body which replaces it or which substantially succeeds to its powers or functions;
- (t) headings are for convenience of reference only and do not affect interpretation of the Agreement; and
- (u) reference to a thing (including a right or obligation) includes a part of that thing, but nothing in this Article 1.2.4(u) implies that performance of part of an obligation constitutes performance of the obligation.

1.3 Related Matters

1.3.1 Where, in the Agreement:

- (a) an obligation is prescribed, the Consultant shall fulfill that obligation unless it is expressly stated that Company shall fulfill that obligation;
- (b) an action is required or contemplated to be taken, the Consultant shall take that action unless it is expressly stated that Company will take that action;

- (c) a precondition is prescribed in relation to any right or benefit that the Consultant might become entitled to enjoy, then the Consultant will only be entitled to the right or benefit if the precondition is satisfied;
 - (d) a right or benefit is given to Company or Company's Representative, Company or Company's Representative, as the case may be, may enjoy that right or benefit even though the right or benefit is not expressly prescribed by the Agreement.
- 1.3.2 Except where expressly provided otherwise in the Agreement all Agreement Material shall be in accordance with and comply with the International System of Units (SI).
- 1.3.3 Where a Party is entitled or required to give a consent or approval, that approval or consent shall not be unreasonably withheld or delayed.
- 1.3.4 Unless a contrary intention is specifically expressed, no provision of the Agreement limits any right of Company whether under the Agreement, Law or otherwise.
- 1.3.5 Figured dimensions prevail over scaled dimensions in a discrepancy.

1.4 Order of Precedence

- 1.4.1 Unless there is a stipulation to the contrary, the following order of precedence will apply in respect of any inconsistency or conflict between any of the terms or other parts of the Agreement:
- (a) Provisions in of the body of the Agreement, excluding its Exhibits;
 - (b) Exhibit 1 – Supplementary Definitions and Interpretation;
 - (c) Exhibit 3 – Scope of Services;
 - (d) Exhibit 4 – Compensation;
 - (e) Exhibit 5 – Coordination Procedures; and
 - (f) the remaining Exhibits in their numerical order by Exhibit number.

1.5 Conflicts and Ambiguities

- 1.5.1 Subject to Article 1.4, if Company's Representative considers, or the Consultant notifies Company's Representative in writing, that there is a conflict, ambiguity, inconsistency or discrepancy in or between or among any of:
- (a) the terms of the Agreement; or
 - (b) between the Agreement and any Change Order or Change Request; or

(c) the Standards,

Company's Representative will direct the interpretation which the Parties shall follow. The Consultant shall comply with the interpretation directed by Company's Representative unless within ten (10) days after receipt of the interpretation directed by Company's Representative, the Consultant disputes the interpretation by giving Company and Company's Representative a Dispute notice under Article 28.0.

1.5.2 Company's Representative, in giving a direction in accordance with Article 1.5.1, is not required to determine whether there is an ambiguity or inconsistency before giving a direction of clarification.

2.0 APPLICATION AND TERM OF AGREEMENT

2.1 Application

2.1.1 Notwithstanding any other provision of the Agreement or any other contract between Company and the Consultant, the provisions of the Agreement will apply to all matters and things arising with respect to the Services or the performance of the Services by the Consultant.

2.2 Term

2.2.1 The Term will commence on the Effective Date and expire on the Termination Date.

2.3 No Exclusivity

2.3.1 The Agreement is not evidence of, nor does it create, an exclusive relationship between Company and the Consultant in respect of the Services and the Company expressly reserves the right at any time to engage Other Consultants to perform some of the same or similar services as the Services, or to amend, delete and remove any services from the Services, including to have any part of the Services deleted from the Agreement performed by the Company or any Other Consultant of the Company.

3.0 COMPANY'S REPRESENTATIVE

3.1 Authority of Company's Representative

3.1.1 The Company's Representative will give directions and carry out all other functions of Company's Representative under the Agreement as the agent of Company (and not as an independent certifier, assessor or valuer).

3.1.2 The Consultant shall comply with any direction by Company's Representative given or purported to be given under a provision of the Agreement.

3.1.3 Except where the Agreement otherwise expressly provides or in relation to either an emergency, environmental or safety related issue, all directions by Company's Representative will be in writing.

3.1.4 Company may replace Company's Representative by written notice to the Consultant at any time.

3.2 Delegation of Power by Company's Representative

3.2.1 Company's Representative may, by written notice from time to time to the Consultant, appoint delegates to exercise any of Company's Representative's functions under the Agreement, and may at any time by written notice terminate any one or more such appointments.

3.3 Compliance with Directions of Company's Representative

3.3.1 If Company's Representative gives a direction pursuant to the Agreement, the Consultant shall comply with the direction.

3.3.2 If the Consultant fails or refuses to comply with a direction by Company's Representative given in accordance with the Agreement, Company may notify the Consultant in writing of:

- (a) the Consultant's failure or refusal to comply with a direction of Company's Representative;
- (b) a reasonable period of time (but not more than 7 days) for the Consultant to rectify the failure or refusal; and
- (c) notwithstanding (a) and (b), the Consultant acknowledges and agrees that the notice and time period provided by Company to Consultant to comply with a direction by Company's representative under (a) and (b) does not prejudice, lessen or otherwise affect Company's other rights against Consultant whether under this Agreement or otherwise related to Consultant's failure to comply with the direction of Company's Representative pursuant to this Agreement.

3.3.3 Subject to Article 3.3.4, if the Consultant does not rectify the failure or refusal within the specified time, the Company may:

- (a) withhold further payment to the Consultant until the Consultant complies with the direction or until the Consultant has rectified the failure or refusal pursuant to Article 3.3.2; and
- (b) carry out, or have a third person carry out, the Services which is the subject of the direction, in which case the additional cost incurred by Company will be a debt due and payable from the Consultant to Company.

3.3.4 The compliance by the Consultant with a direction given by Company's Representative is without prejudice to the Consultant's rights under Article 28.0.

3.3.5 Notwithstanding Article 3.3.4, a direction of Company's Representative shall be binding and not subject to review unless, within 14 days after the date of the direction, it is disputed by the Consultant under and in accordance with Article 28.0.

4.0 CONSULTANT'S REPRESENTATIVE

4.1 Authority of Consultant's Representative

4.1.1 The Consultant's Representative, and each of its delegates appointed under Article 4.2, has or will have authority at all times to act on behalf of the Consultant in respect of the Agreement.

4.1.2 All references to Consultant's Representative shall include any delegate appointed under Article 4.2.

4.2 Delegation of Consultant's Representative's Power

4.2.1 The Consultant's Representative may appoint delegates to exercise any of Consultant's Representative's functions under the Agreement and may terminate such appointments.

4.2.2 The Consultant shall promptly inform Company in writing of:

- (a) any replacement of Consultant's Representative; and
- (b) any delegation by Consultant's Representative of Consultant's Representative's functions under the Agreement to a nominee, the extent and the scope of that delegation, and any termination of appointment of delegates.

4.2.3 The Consultant's Representative or Consultant's Representative's delegate shall be available at all reasonable times and upon reasonable notice at the Site when the Consultant is performing the Services on the Site.

4.3 Residence of Consultant's Representative

4.3.1 During the Term, Consultant's Representative shall ordinarily reside in metropolitan St. John's, Newfoundland and Labrador.

4.4 Consultant's Acknowledgments

4.4.1 The Consultant acknowledges and agrees that:

- (a) any notice, consent, approval or other communication given or signed by Consultant's Representative will bind the Consultant;

- (b) matters within Consultant's Representative's knowledge will be deemed to be within the knowledge of the Consultant; and
- (c) any direction or other communication given or signed by Company's Representative or by a delegate appointed under Article 3.2 on behalf of Company's Representative to Consultant's Representative will be deemed to have been given to the Consultant.

5.0 CONSULTANT'S PERSONNEL

5.1 Personnel Generally

5.1.1 The Consultant shall:

- (a) provide experienced and skilled Personnel to perform the Services in accordance with its obligations under the Agreement and who have the necessary experience, education, training and professional qualifications to carry out the Services in a cost-efficient and expedient manner consistent with the standards of care required by the Agreement; and
- (b) ensure that the Services are performed under the supervision of appropriately qualified and experienced Personnel.

5.1.2 Company may, in its absolute discretion, direct the Consultant to remove from any activity connected with performance of the Services, or where applicable, the Site, any Personnel who in the reasonable opinion of Company is lacking in appropriate skills or qualifications, engages in misconduct, unsafe activities, or is incompetent or negligent. The Consultant shall not permit that person to undertake any activity in connection with the performance of the Services, or where applicable, re-enter the Site, without the prior written approval of Company's Representative.

5.1.3 Notwithstanding any other provision of the Agreement to the contrary, the Consultant shall comply with a direction made under Article 5.1.2 within the time specified by Company.

5.2 Key Personnel

5.2.1 The Consultant acknowledges and agrees that the Key Personnel are considered by both the Consultant and the Company as critical for the proper management, supervision and performance of the Services. When performing Services in respect of the Project, the Consultant shall ensure that the Key Personnel will give the performance of the Services sufficient priority over any and all other work, tasks and assignments that they may otherwise have assigned to them by the Consultant.

- 5.2.2 If it is necessary to replace any of the Key Personnel (whether as a result of death, retirement, resignation, illness or injury or the application of Article 5.1.2), the Consultant shall promptly arrange for a replacement by a substitute person approved by Company's Representative to perform the Services required of the replaced person's nominated position.
- 5.2.3 In consultation with Company's Representative, the Consultant shall assign the Key Personnel to complete various portions of the Services to be performed by the Consultant in respect of the Project. The Consultant shall ensure that the Key Personnel are made available to follow through and ensure the completion of such portions of the Services as are assigned to them.
- 5.2.4 The Consultant acknowledges and agrees that:
- (a) the Key Personnel are critical for the management, supervision and performance of the Services, and in awarding the Agreement to the Consultant the Company has relied on the Consultant's representations that it will use and make the Key Personnel available as provided in the Agreement;
 - (b) the Parties acknowledge and agree that the Liquidated Damages hereinafter provided in the Agreement are representative and reflective of the actual costs and damages that would be sustained by Company arising out of the removal or replacement of Key Personnel as hereinafter provided and Consultant hereby agrees and waives any and all right whatsoever to dispute or challenge such Liquidated Damages and amounts relating thereto in any legal or other proceeding that may be commenced by Consultant in the enforcement of payment of such amounts by Consultant to Company;
 - (c) it will pay to Company, Liquidated Damages at the agreed lump sum rate for applicable Personnel as Liquidated Damages, as stated in Exhibit 4, unless such removal is due to death, retirement, resignation, illness or injury or is otherwise approved by Company's Representative, or directed by Company under Article 5.1.2;
 - (d) the Parties have agreed to specify rates of Liquidated Damages to be payable to avoid the difficulty of proving the precise loss suffered by Company if the Consultant fails to comply with its obligations in respect of Key Personnel;
 - (e) if Company's entitlement to, and the Consultant's liability for, Liquidated Damages under Article 5.2.4(a) is or becomes void, voidable or unenforceable for any reason or there is no amount specified in Exhibit 4, then Company will be entitled to recover from the Consultant, and the Consultant will indemnify Company against, the Liability incurred or suffered by Company arising out of or in connection with the Consultant's failure to provide the Key Personnel in accordance with the Agreement.

5.3 Consultant's Organization

- 5.3.1 Prior to the Effective Date, the Consultant shall provide Company's Representative with a detailed organizational chart, containing details of the positions and reporting relationships within the Consultant's organization in relation to supervisory personnel associated with the performance of the Services, and containing details of how the Consultant's personnel will inter-relate with the personnel and Other Consultants of the Company involved in the Project.
- 5.3.2 The Consultant shall promptly notify Company's Representative of any changes to the positions and reporting relationships outlined in the organizational chart provided in accordance with Article 5.3.1.

5.4 No Solicitation of Company Personnel by Consultant

- 5.4.1 The Consultant shall not, without the prior agreement of the Company, solicit any employee of the Company (or any consultant to the Company retained in their personal capacity and working more than seventy-five percent of their time for the Company) for a period which is the lesser of twelve months:
- (a) following termination of that person's employment with the Company; or
 - (b) from the last date that the person was involved in the Project for the Company.

6.0 DOCUMENTS

6.1 Agreement Material and Documentation

- 6.1.1 The Consultant shall keep and maintain a copy of all Agreement Material at the Project office for the Project. After completion of the Services, the Consultant shall keep and maintain a copy of (All or Selected) Agreement Material and Documentation at Consultant's address as set out in the Agreement.
- 6.1.2 The Consultant shall ensure that all Agreement Material is available to Company (or persons nominated by Company) at all reasonable times at all sites for examination, audit, inspection, transcription and (in respect of records only) copying.
- 6.1.3 Where the Consultant is performing Services at other locations and at the Site, the Consultant shall keep and maintain at other location and at the Site for use by Company and Consultant the Agreement Material and all Documentation prepared by Company or the Consultant in connection with the Project.
- 6.1.4 The Consultant shall at its expense keep and maintain full and detailed records and accounts in connection with the performance of the Services in accordance

with both generally accepted accounting principles (GAAP) and the international financial reporting standards (IFRS).

6.2 Audit

6.2.1 The Consultant agrees to allow access and to arrange for access of Company or its authorised representatives at all reasonable times and for a period of 2 years after the Termination Date to:

- (a) the Consultant and its Personnel; and
- (b) all Documentation including that described in Article 6.1.3 pertaining to the performance of the Services, for the purpose of auditing and verifying that:
 - i) the Consultant has performed its obligations in accordance with this Agreement;
 - ii) the Application for Payments presented by the Consultant to Company for payment are in accordance with the Agreement; and
 - iii) for any other reasonable purpose.

6.2.2 Company has the right to reproduce or copy any of the Documentation referred to in Article 6.2.1(b).

6.2.3 The Consultant shall preserve, and shall cause its Personnel to preserve, all the Documentation (including that described in Article 6.1.3) pertaining to the performance of the Services for 2 years after the Termination Date or the date of termination of the Agreement, whichever is the earlier.

6.2.4 In addition to any financial audit of the Consultant, Company may monitor and audit the performance of the Services, and the Consultant shall cooperate with, and shall ensure that its Personnel cooperate with, and provide access to the Personnel of Company monitoring and auditing the Services, including providing them with all Documentation pertaining to the Services (whether embodied in tangible or electronic form).

6.3 Transfer of Agreement Material

6.3.1 If the Agreement is terminated prior to the Termination Date, the Consultant shall give Company any and all Agreement Material (whether embodied in tangible or electronic form) which Company considers is necessary for the orderly continuance of the Services by another person.

7.0 THE CONSULTANT'S WARRANTIES AND ACKNOWLEDGMENTS

7.1 Warranties as to Services and other matters

7.1.1 The Consultant warrants that:

- (a) it and its Personnel have the particular skill, qualifications, training, experience and ability necessary to perform the Services and will continue to have them in the performance of the Services;
- (b) it has examined all information relevant to the risks, contingencies and other circumstances having an effect on the Rates and that except as expressly provided otherwise in the Agreement or in a Change Order or Change Request, the Rates and the Reimbursable Costs fully cover the remuneration of the Consultant performing the Services and complying with each and every one of its obligations under the Agreement;
- (c) it will not knowingly do or permit anything which might damage the name or reputation of Company or reasonably invite adverse public criticism or result in Company being the subject of any official investigation;
- (d) any information given or representation made to Company or to Company's Representative in connection with the Agreement is to the best of its knowledge accurate, current and is not misleading or deceptive in any respect; and
- (e) as at the Effective Date, no conflict of interest exists and it will ensure none will arise in the performance of the Services.

7.2 Warranties as to Status and Capacity

7.2.1 The Consultant represents and warrants to Company that:

- (a) it is duly incorporated and validly exists under the Laws of its place of incorporation and also of the Province of Newfoundland and Labrador;
- (b) it is in good standing with respect to the filing of annual reports under the legislation under which it was incorporated;
- (c) it is not insolvent and no receiver has been appointed over any part of its assets and no such appointment has been threatened;
- (d) it is not in liquidation and no proceedings have been brought or threatened for the purpose of winding it up;
- (e) to the best of its knowledge, there are no facts, matters or circumstances which give any person the right to apply to liquidate or wind it up;

- (f) the execution and delivery of the Agreement has been properly authorised by all necessary corporate action of it;
- (g) it has full corporate power and lawful authority to execute and deliver the Agreement and to consummate and perform or cause to be performed its obligations under the Agreement;
- (h) the Agreement constitutes a legal, valid and binding obligation of it enforceable in accordance with its terms by appropriate legal remedy subject to usual exceptions as to bankruptcy and the availability of equitable remedies; and
- (i) the execution, delivery and performance by it of the Agreement does not or will not (with or without the lapse of time, the giving of notice or both) contravene, conflict with or result in a breach of or default under:
 - (i) any provision of its charter or constituting documents;
 - (ii) any material term or provision of any security arrangement, undertaking, agreement or deed;
 - (iii) any writ, order or injunction, judgment, law, rule or regulation to which it is a party or is subject or by which it is bound.

7.3 Acknowledgements

7.3.1 The Consultant acknowledges and agrees that:

- (a) Company has not represented, warranted or guaranteed to the Consultant that during the Agreement the Consultant will be directed or engaged to perform any particular amount or volume of Services; and
- (b) Company may at any time during the Agreement enter into any contract or may engage any person other than the Consultant to carry out the Services and that the Consultant will not be entitled to any payment or additional amount in respect of the Services carried out by any other person engaged by Company.

7.4 Company's Reliance

7.4.1 The Consultant acknowledges that Company has entered into the Agreement relying on the warranties given by the Consultant in this Article 7.0.

7.5 Continuing Warranties

7.5.1 The warranties and acknowledgments contained in this Article 7.0 will be treated as made and be binding upon the Consultant continuously during the Agreement.

8.0 CONSULTANT'S GENERAL OBLIGATIONS

8.1 Standard of Care

- 8.1.1 The Consultant shall perform the Services with the professional skill, care and diligence that would be expected of a consultant experienced in projects of a similar nature to the Project and in the performance of services, the same as or similar to, the Services.
- 8.1.2 The Consultant shall ensure that any Subcontractor appointed by it to perform part of the Services performs that part of the Services with the professional skill, care and diligence expected of a professional consultant experienced in projects of a similar nature to the Project and activities of a similar nature to the part of the Services subcontracted to that Subcontractor.
- 8.1.3 All parts of the Services required by applicable Law to be performed by licensed or registered professional engineers, geoscientists or architects shall be performed by licensed or registered professional engineers, geoscientists and architects. Without limiting the foregoing, all design shall, to the extent required by applicable Law, be reviewed by professional engineers and geoscientists registered to practice professional engineering and geoscience in the jurisdiction in which the Project or Site is located.

8.2 Consultant's Obligations – General

- 8.2.1 The Consultant shall:
- (a) commence the Services on the Effective Date and complete the Services within the time periods specified in the Agreement for completion of the different stages and parts of the Services;
 - (b) in accordance with the Agreement, provide all professional advice and skills which are required for the performance of the Services;
 - (c) fully inform itself of Company's requirements for the Services and the manner in which the Services are to be performed and remain fully responsible for all Services performed by the Consultant irrespective of any review or acceptance of those Services by Company;
 - (d) engage or employ Personnel with qualifications and experience appropriate to the provision of the Services or that part of the Services for which they are engaged or employed;
 - (e) promptly inform Company in writing of any information or Documentation provided or caused to be provided to the Consultant by Company that is found to be inadequate to enable the Consultant to properly perform the Services or is found to contain any material inaccuracies;

- (f) perform the Services:
 - (i) in accordance with Good Utility Practice, the requirements of applicable Standards, the Authorities, the Law and the Agreement;
 - (ii) so as to permit the Other Consultants to comply with their obligations to Company;
 - (iii) by the Milestone Dates referred to in the Project Milestone Schedule or such other dates as are directed by Company;
- (g) ensure that the Services are performed so as to enable:
 - (i) the Work to be executed; and
 - (ii) the Project (including the services to be carried out by the Other Consultants) to be carried out and completed with due diligence and efficiency in accordance with sound practices and principles;
- (h) if directed by Company to do so, obtain all approvals necessary for that part of the Project to which the Services relate;
- (i) co-ordinate and liaise with the Other Consultants and do everything reasonably necessary to co-ordinate and integrate the Services with the works or services in respect of the Project that are required to be performed by the Other Consultants.

8.3 Compliance with Laws

8.3.1 The Consultant shall ensure that all Agreement Material complies with all relevant Law and that in the performance of the Services all applicable Law is complied with by it and its Personnel.

8.3.2 The Consultant shall promptly notify Company in writing if:

- (a) the Services, the Agreement Material or the requirements of the Project to which the Services relate do not comply with any applicable Law; or
- (b) any necessary licence, permit or approval has not been obtained.

8.4 Certification of Agreement Material by Consultant

8.4.1 All Agreement Material prepared by or on behalf of the Consultant in the course of providing the Services shall be certified by Consultant's Representative as having been prepared by Personnel with appropriate qualifications and experience and otherwise as having satisfied the requirements of the Agreement.

8.5 Documentation Liability

8.5.1 Neither the review nor the permission to use nor the approval by Company of any and all Documentation submitted by or on behalf of the Consultant under the Agreement relieves the Consultant from:

- (a) responsibility or liability for any defects, errors or omissions whatsoever (including defects, errors or omissions in design) contained in the Documentation; or
- (b) the Consultant's obligations to comply with the provisions of the Agreement.

8.6 Corrections

8.6.1 Notwithstanding any reviews, permissions to use or directions undertaken or given by Company with respect to Documentation prepared under the Agreement any error, ambiguity or deficiency which subsequently becomes apparent and is referred to the Consultant for correction or clarification shall be promptly corrected or clarified by the Consultant to the satisfaction of Company.

8.7 Review of Work by Others

8.7.1 Where the Consultant is required to take over or develop work provided by or on behalf of Company, it shall review that work and notify Company in writing whether:

- (a) the work is satisfactory for use by the Consultant as to form and content; or
- (b) it is necessary for the Consultant to remedy deficiencies in the work before the work may be used for its intended purpose and, in that case, shall specify the deficiencies and the remedial work necessary.

8.7.2 If the Consultant provides a written notice under Article 8.7.1(b) and Company directs the Consultant to undertake remedial work, then the remedial work shall be promptly undertaken by the Consultant.

8.8 Standards

8.8.1 The Consultant acknowledges and agrees that it is solely responsible for ensuring that in the performance of the Services it uses and applies the latest version of all applicable Standards.

8.9 Consultant's Request for Information

8.9.1 The Consultant acknowledges that, other than as expressly provided elsewhere in the Agreement, it is the Consultant's responsibility to make all enquiries, obtain all information and make all judgments that are relevant to and necessary for the performance of the Services.

- 8.9.2 The Consultant shall not delay the progress of the Services by reason of the Consultant awaiting information from Company or Company's Representative:
- (a) unless the Agreement expressly provides otherwise;
 - (b) unless Company's Representative otherwise in writing directs the Consultant; or
 - (c) except to the extent that the Consultant cannot reasonably proceed with the Services without the information.

8.10 Comments, Review and Acceptance by Company does not Relieve Consultant's Responsibilities

8.10.1 As Company's Representative carries out its functions under the Agreement as agent of Company, neither Company's Representative nor a delegate appointed under Article 3.2 owes any duty to the Consultant in discharging any of the functions of Company's Representative under the Agreement other than those expressly provided for or specified in the Agreement.

8.10.2 No comment, review, representation, acceptance or approval by Company or Company's Representative in respect of the Consultant's obligations under the Agreement (including comments on, or review or acceptance or approval of, any Agreement Material), or any other direction of Company's Representative given in accordance with the Agreement, will lessen or otherwise affect the Consultant's obligations under the Agreement.

8.10.3 Except where expressly specified otherwise in the Agreement, Change Request or Change Order, none of the following items constitute a Change, Change Request or Change Order:

- (a) a direction;
- (b) any review, consultation, monitoring or audit undertaken by or on behalf of Company;
- (c) any comments made by Company's Representative; or
- (d) any verification by or on behalf of Company.

9.0 CONSULTANT'S ENGINEERING AND DESIGN OBLIGATIONS

9.1 Application

9.1.1 This Article 9.0 applies to all engineering and design performed by the Consultant as part of the Services.

9.2 Standard of Care

- 9.2.1 The requirements of this Article 9.2 are in addition to the requirements of Article 8.1.
- 9.2.2 All parts of the Services required by applicable Law to be performed by licensed or registered professional engineers, geoscientists or architects shall be performed by professional engineers, geoscientists or architects licensed or registered in the Province of Newfoundland and Labrador. Further, all design shall be reviewed by professional engineers and geoscientists registered to practice professional engineering and geoscience in the Province of Newfoundland and Labrador and such engineers and geoscientists shall sign and seal all design, drawings and technical reports confirming and representing to the Company that they have reviewed and checked the design and that the design complies with the standards, specifications and codes specified in the Agreement and with all prevailing design standards and design practices for such work in the Province of Newfoundland and Labrador.
- 9.2.3 In the performance of engineering and design as part of the Services, the Consultant and its Subcontractor(s) shall exercise the standard of care exercised by licensed or registered professional engineering and geoscience Personnel having specialized knowledge and experience in the design associated with the Scope of Services detailed in Exhibit 3. The Consultant acknowledges that in entering into this Agreement the Company is relying on the considerable expertise the Consultant represents it has in the engineering and design of the parts of the Project included in the Services.
- 9.2.4 Consultant and its Subcontractor(s) shall for all engineering and design use only design personnel who, through education, training and experience have the requisite knowledge and skills to perform the engineering and design work assigned to them.

9.3 General

- 9.3.1 The Consultant shall prepare all necessary Detailed Design and Detailed Design Documentation sufficient for the procurement, fabrication, installation, construction or commissioning of those parts of the Project that are the subject of the Services. The Detailed Design shall be prepared in accordance with Article 9.4.
- 9.3.2 The Consultant shall liaise closely with Company in connection with the Detailed Design to ensure the Consultant continues to meet the requirements of Company as specified in the Agreement and any other requirements as made available to and directed by Company's Representative from time to time.
- 9.3.3 Company's Representative may direct the Consultant to vary the Detailed Design. Article 3.3 applies to any such direction if that direction is a Change

Request but if that direction is not a Change Request and the subject matter of the direction constitutes a Change, Article 23.0 will apply to that direction.

- 9.3.4 The Consultant shall obtain all necessary approvals and conduct reviews of the Detailed Design as required under the Agreement and as directed by Company's Representative.

9.4 Consultant's Design and Engineering Obligations

9.4.1 The Consultant shall ensure that the Agreement Material, including the Detailed Design Documentation:

- (a) meets Company's requirements for the Project as set out in the Agreement or, where not set out in the Agreement, as made known by the Company in writing to the Consultant from time to time; is free from errors, omissions and defects in design and is accurate and complete in all respects;
- (b) will minimize the repair and maintenance costs of the Project and will maximize the life of the Project;
- (c) will comply with applicable Law;
- (d) will contain all necessary information or elements needed for Company to apply for permits, licenses or approvals from any Authority; and
- (e) is otherwise suitable in all respects so that the Project will meet all requirements of this Agreement.

9.5 Preparation of Agreement Material

9.5.1 Without limiting Article 9.4:

- (a) the Consultant shall develop and complete, to all applicable Standards, all Agreement Material required for the completion of the Project and the Services; and
- (b) the Agreement Material and any other design drawings and specifications shall be prepared by Personnel with appropriate professional qualifications.

9.6 Consultant's Internal Design Reviews

9.6.1 Consultant, if required by Company, shall establish an internal panel of experts who are not otherwise actively engaged in the performance of the Services to review and provide comments and recommendations regarding the engineering and design in terms of conformance to the Agreement and good engineering practice, constructability, and to identify any errors, omissions or deficiencies that may exist in the design.

9.7 Design Reviews by Company and Other Consultants

9.7.1 Company may at any time and from time to time use one or more Other Consultants, alone or as part of design review panels, to review any or all engineering and design (including Documentation generally considered as part of professional engineering services) provided by the Consultant as part of the Services, including the compliance of the Services with the Agreement, applicable Law, requirements of Authorities, conformance to Good Utility Practice, and constructability. The Consultant and its Subcontractors shall cooperate fully in that review and provide, among other things, all necessary documents, calculations, notes and working papers to the Company for the Other Consultants or panels to complete their review. The Consultant shall participate in any design review panels, as directed by Company, and respond to questions from the reviewers as necessary to demonstrate that the engineering and design comply fully with all requirements of the Agreement, and shall take into account and address any comments and recommendations received from the panel. No such reviews by or on behalf of the Company, however, shall relieve the Consultant of its sole responsibility to perform the Services in accordance with the standard of care and other requirements of this Agreement.

9.8 Review and Acceptance or Approval by Company

9.8.1 Neither Company nor Company's Representative nor any Other Consultants undertakes any responsibility or duty of care to the Consultant to review, or in reviewing, the Agreement Material for errors, omissions or compliance with the Agreement.

9.8.2 No review of, comments upon, rejection of, or failure to review or comment upon or reject, any Agreement Material prepared by the Consultant or any other direction by Company's Representative about the Agreement Material (as long as the Consultant has not objected in writing to, and within fourteen days after, such a direction) will:

(a) relieve the Consultant from, or alter or affect, the Consultant's liabilities or responsibilities whether arising out of or in connection with the Agreement or otherwise according to Law; or

(b) prejudice Company's rights against the Consultant whether arising out of or in connection with the Agreement or otherwise according to Law.

9.8.3 Without limiting Articles 9.8.1 and 9.8.2, any review, acceptance, monitoring, approval or audit of any Agreement Material or part of the Services by Company or Company's Representative shall not be interpreted or otherwise construed to be, an acceptance or approval of any Agreement Material or the Services that is not in full conformance with all requirements of the Agreement.

9.8.4 If:

- (a) the Consultant submits Agreement Material to Company or Company's Representative for review or comment; and
- (b) the Agreement does not expressly oblige either Company or Company's Representative to review or comment on that Agreement Material; and
- (c) within 15 days after receipt of that Agreement Material neither Company or Company's Representative provide any comment on that Agreement Material to the Consultant,

then it is deemed that neither Company nor Company's Representative have any comment on that Agreement Material and the Consultant may proceed with the Services based on that Agreement Material.

10.0 SITE AND ACCESS RIGHTS

10.1 Access

10.1.1 The Consultant accepts the Company's Site and the obligation to perform the Services in the condition existing at the Effective Date of this Agreement and acknowledges that it has investigated and satisfied itself to the following, except for subsurface or other physical conditions not disclosed by the Company:

- (a) The nature and magnitude of the Services;
- (b) The location of and all conditions relating to the Company's Site including, but not limited to, accessibility, general character, surface conditions, utilities, roads, uncertainties of seasonal weather and all other physical, topographical and geographical conditions;
- (c) All environmental risks, conditions, law and restrictions applicable to the Consultant or to the Services that may affect the Services; and

10.2 Company Site Obligations

10.2.1 Company shall provide, and the Consultant shall abide by, all documents provided by the Company relating to the Company's Site, including, but not limited to, any special restrictions and conditions contained in any easement, regulatory board order, crossing agreement, or other permit relating to the Site.

10.3 Consultant's Site Obligations

10.3.1 The Consultant shall not access the Site until it has satisfied Company that all insurances which the Consultant is required to procure and maintain under Article 16.0 have been obtained by the time access is required.

10.4 Site Orientation Training

10.4.1 The Consultant:

- (a) shall ensure that all its Personnel undergo all Site orientation training required for the Site in accordance with Company's applicable policies and procedures; and
- (b) assumes the risk of any delays arising out of or in connection with, the Site orientation training required under this Article 10.4.

10.5 Damage to People and Property

10.5.1 If any of the Consultant's Personnel damage property of Company, then the Consultant shall promptly make good the damage and pay any compensation which applicable Law requires the Consultant to pay.

10.5.2 If the Consultant fails to comply with Article 10.5.1, Company may perform or have performed the obligation on the Consultant's behalf and the costs incurred will be a debt due and payable from the Consultant to Company.

11.0 PERFORMANCE REVIEWS

11.1 Company Reviews

11.1.1 Company may undertake periodic reviews of the Services for the purpose of ascertaining whether the Consultant is properly observing its obligations under the Agreement. The Company will decide when and if to conduct such reviews and the form of any report ("**Performance Report**") that it will produce.

11.2 Discussion of Report

11.2.1 If a Performance Report is produced, it will be delivered to the Consultant after the end of each review and the Consultant shall promptly meet with Company to discuss the contents of the Performance Report and the action (if any) that Company directs the Consultant to take to remedy any failure in the Consultant's performance of the Services apparent from the Performance Report. The Consultant shall promptly comply with such direction and take all steps necessary to ensure that any failure in performance does not recur and that the Services are at all times performed to the standard required in the Agreement.

12.0 COMPENSATION

12.1 Company's Payment Obligations

12.1.1 Company will, subject to Article 14, pay compensation to the Consultant in accordance with and subject to Exhibit 4 and Exhibit 5.

- 12.1.2 Notwithstanding any other provision of the Agreement, the Consultant shall not claim for nor will the Consultant be paid for time expended by its Personnel in the correction or re-performance of any Services required due to errors, omissions, defects or deficiencies in the Services.
- 12.1.3 If there is any Change to the Services authorized in writing by Company, the Consultant will be paid in accordance with the payment provisions specified in the Change Order or, if not specified therein, in accordance with and subject to Exhibit 4 and Exhibit 5.
- 12.1.4 The Consultant shall ensure that accurate and detailed daily time sheets are kept and maintained by all its Personnel, indicating clearly the name of the person, the hours spent and a reasonably descriptive narrative of the Services performed, appropriately coded to allow proper and accurate recording of the Cost of Services and verification by Company that the time was reasonable and expended on the performance of the Services.
- 12.1.5 The compensation specified in this Article 12.1 will constitute the Consultant's sole and exclusive entitlement to payment from Company in respect of the performance of the Services.

12.2 Submitting Application for Payment Constitutes Warranty

- 12.2.1 By submitting an Application for Payment, the Consultant represents and warrants to Company that:
- (a) the Consultant has performed the Services which are the subject of the Application for Payment;
 - (b) the Consultant is not aware of any defects, mistakes, errors or omissions in the Services, including any that would require the Consultant to re-perform the Services that are included in the Application for Payment;
 - (c) any remuneration and other amounts due and payable (whether under Law or otherwise) by the Consultant to any of its Personnel in respect of the Services have been paid, except holdbacks and amounts properly retained in accordance with applicable Law or amounts that are the subject of a bona fide dispute;
 - (d) subject to any Claims that may have arisen within the 14 day period prior to the Application for Payment, the Consultant is not aware of any Claim against Company which is not identified in the Application for Payment or in an earlier Application for Payment or notice of which has not been previously given to Company; and
 - (e) all necessary remittance due to Federal, Provincial or Municipal governments are complete as due and payable.

12.3 Payment

12.3.1 A payment made pursuant to the Agreement:

- (a) will not prejudice the right of either Party to dispute whether the paid amount is the amount properly due and payable;
- (b) will not be evidence of the value of the Services;
- (c) will not be evidence that the Services have been executed satisfactorily; and
- (d) will not be an admission of liability on the part of the payer.

12.4 Conditions Precedent to Entitlement to Payment

12.4.1 If, at the time that the Consultant submits an Application for Payment, and the Consultant has not:

- (a) provided security for the amount (if any) required under Article 15.0;
- (b) effected the insurance required by section 16.0 and, if requested, provided evidence of this to Company's Representative;
- (c) paid all its Personnel, Subcontractors and suppliers as warranted under Article 12.2.1(c);
- (d) in the case of an Application for Final Payment, submitted a duly executed Certificate of Release as required under Article 12.5.1(b); and
- (e) complied with all directions given by Company's Representative under the Agreement,

then:

- (f) the Consultant will not be entitled to payment;
- (g) Company's Representative will not be obliged to include any payment statement;
- (h) Company will not be liable to pay,

any amount included in the Application for Payment.

12.5 Final Payment Application

12.5.1 Within 7 days before the Termination Date, the Consultant shall deliver to Company's Representative:

- (a) Application for Final Payment and

- (b) a duly executed Certificate of Release.

12.5.2 The Consultant shall include in the Application for Final Payment:

- (a) a complete statement of accounts, including any Changes;
- (b) all money that the Consultant considers to be due from Company arising out of or in connection with the Services, the Agreement or any alleged breach of contract;
- (c) confirmation that all Documentation, approvals of all Authorities and deliverables as required by the Agreement have been lodged with Company's Representative; and
- (d) a certificate stating that all wages and other charges have been paid and that no monies are due or owing by the Consultant to any of its Personnel, Subcontractors and Suppliers other than any Personnel disclosed in the certificate.

12.5.3 The Consultant shall provide with the Certificate of Release (as required by Article 12.5.1) details of how the amount claimed in the Application for Final Payment is calculated including:

- (a) separate identification of each claim and the amount of each claim included in the Application for Final Payment;
- (b) which section, if any, of the Agreement the Consultant relies upon to support an entitlement to each claim;
- (c) if based on breach of the Agreement, what obligation, if any, Company has breached and which the Consultant relies upon to support an entitlement to each claim; and
- (d) a description of the other acts, defaults and omissions that the Consultant relies upon to support any entitlement to a claim.

12.5.4 By submission of its Application for Final Payment the Consultant agrees that, as of the date of the Application for Final Payment, the Consultant waives, remises, releases and discharges the Company of any and all Claims that the Consultant has or may have, whether at law or at equity and whether known or unknown, relating to or arising out of the Agreement, the Project or the subject matter of the Agreement or Project, and all facts and circumstances related thereto whether known or unknown, save and except only Claims previously submitted in writing remaining unresolved and the amount of the Application for Final Payment.

12.6 Company's Payment of Subcontractors

12.6.1 If the Consultant owes any Subcontractor money in connection with the Services and:

- (a) that money has been outstanding under the relevant Subcontract for more than 30 days; and
- (b) the Consultant does not have a valid reason for that outstanding money not having been paid,

then Company, at its option, may pay the Subcontractor the outstanding amount, and:

- (c) call upon the Security for the outstanding amount in accordance with Article 15.0 (without limiting the unconditional nature of the Security); or
- (d) the outstanding amount so paid will be a debt due and immediately payable from the Consultant to Company.

12.6.2 No debt by Company will be taken to have accrued in favour of the Consultant in respect of any payment by Company of an outstanding amount in accordance with Article 12.6.1.

12.6.3 Company is entitled to withhold from any payment which would otherwise be due to the Consultant under the Agreement any amount owing to a Subcontractor by the Consultant under Article 12.6.1, and if such amount owing to a Subcontractor is not disputed may make payment directly to the Subcontractor (in which case such payment shall be deemed authorized by a direction to pay from the Consultant to Company).

12.7 Property and Liens

12.7.1 The Consultant shall:

- (a) if any lien is lodged or registered against the Site or Project or any other property of Company, the Consultant shall promptly at its own cost and without reimbursement from the Company vacate, discharge or otherwise cause that lien to be removed and discharged.

13.0 DEDUCTIONS AND PAYMENTS**13.1 Right of deduction**

13.1.1 Company may:

- (a) deduct from any moneys due or becoming due to the Consultant, pursuant to section 11.0, the following amounts:

- (i) all debts and moneys due from the Consultant to Company;
 - (ii) all Liability which Company may have paid, suffered or incurred and which or for which the Consultant or its Personnel is or are liable to bear, pay or reimburse to Company (including pursuant to any indemnity contained in the Agreement);
 - (iii) the cost of remedying any Services which have not been performed in accordance with the Agreement; and
 - (iv) any amount which Company is required to withhold or deduct by Law.
- (b) Notwithstanding any other provision of the Agreement to the contrary and without prejudice to the rights of Company under any other provision of the Agreement, if within 10 Business Days after receiving notice from Company specifying that the Consultant has failed to perform any of its obligations under the Agreement the Consultant fails to rectify any such default, then Company may without notice, withhold payment of all or part of any amount payable to the Consultant under the Agreement, until the matter has been remedied.

13.2 Deductions and withholdings required by Law

13.2.1 If Company is required by applicable Law to withhold or deduct any amount ("**Deducted Amount**") from an amount payable under the Agreement, then the Deducted Amount will be treated as having been paid to the Consultant when it is withheld or deducted and Company will not be liable to pay any amount to the Consultant on account of the Deducted Amount.

13.2.2 If Company fails to withhold or deduct a Deducted Amount, Company may:

- (a) give notice to the Consultant demanding payment of an amount equal to the Deducted Amount and the Consultant shall pay that amount to Company within 30 days of receiving the notice;
- (b) deduct an amount equal to the Deducted Amount from any amounts payable by Company to the Consultant and the amount so deducted will be treated as having been paid to the Consultant when it is deducted and Company will not be liable to pay any amount to the Consultant on account of the Deducted Amount; or
- (c) recover an amount equal to the Deducted Amount by a combination of a demand under Article 13.2.2 (a) and deducting an amount under Article 13.2.2 (b), and in each case where the failure to withhold or deduct the Deducted Amount arises as a result of any act, omission or oversight of the Consultant, the Deducted Amount will include any fines, penalties or interest payable by Company in respect of the Deducted Amount.

13.3 Notification of withholding or deductions

13.3.1 Company shall notify the Consultant of the details of any amounts withheld or deducted pursuant to this Article 13.0.

14.0 TAXES AND LEVIES**14.1 Liability for Tax**

14.1.1 The Consultant is liable for payment of any and all Taxes connected to or imposed upon the Services but does not include any Taxes related to Company's operations or income. If any Tax is imposed, the Consultant shall pay the full amount to the relevant Authority and indemnifies Company against any Liability sustained or incurred by Company as a consequence of the Consultant's failure to do so. If any exemptions, reductions, allowances, rebates or other privileges in relation to Taxes (other than Taxes imposed on the Consultant's income or non-Project operations of the Consultant) may be available to the Consultant or Company, the Consultant shall adjust any payments due to reflect any such savings or refunds (including interest awarded) to the maximum allowable extent.

14.1.2 Company may deduct from any payments due to the Consultant any Tax which Company is required by any Authority to withhold or deduct. Prior to payment being made to the Consultant, Company shall notify the Consultant of any required withholding or deduction.

14.2 Personnel Benefits

14.2.1 The Consultant acknowledges and agrees that:

- (a) the Consultant will be responsible for making all agreed and mandatory payments (whether under Law or otherwise) regarding the employment or engagement of its Personnel, including payment of costs related to the provision of any fund, scheme or arrangement for the benefit of employees or any sickness and accident insurance schemes and other benefits or entitlements which are in existence at the Effective Date, or which come into existence after the Effective Date and the Consultant agrees that it will not be entitled to claim, nor will Company be obliged to pay or reimburse the Consultant any monies whatsoever in respect of or in connection with any such payments, benefits or entitlements; and
- (b) in respect of the payments, benefits and entitlements referred to in Article 14.2.1(a), the Consultant shall permit Company to have access to all relevant business records and correspondence of the Consultant for the Term and for a period of 2 years following the Termination Date or the termination of the Agreement, whichever first occurs.

15.0 PERFORMANCE SECURITY**15.1 Delivery and Form of Security**

15.1.1 Within seven (7) Business Days after the Effective Date, the Consultant shall, if required, deliver to Company the following security (“Security”):

- (a) a parent company guarantee, executed and delivered by the ultimate parent company of the Consultant in the form and with content specified in Exhibit 10, and/or ;
- (b) a Letter of Credit equal to 15% of the Agreement Value against each invoice, through completion of the Services, as identified in Exhibit 4.

15.2 No payment prior to delivery of Security

15.2.1 Notwithstanding any other provision of the Agreement, Company is not obliged to pay any amount to the Consultant until the Consultant has delivered the Security to the Company as required by Article 15.1.

15.3 Recourse to Security

15.3.1 Company may claim under and have recourse to the Security if the Consultant has not performed its obligations in accordance with the Agreement or if the Company otherwise has a claim against the Consultant.

15.4 Release of Security

15.4.1 Company shall return the Security to the Consultant within the later of ninety (90) days after:

- (a) the Termination Date; and
- (b) the date the Consultant has complied with and completed all its obligations under the Agreement.

16.0 INSURANCE**16.1 Insurance by Company**

16.1.1 Company shall procure and maintain insurance with respect to the Project consistent with its normal policies, which shall be for the sole benefit of Company. Company shall have no obligation to provide insurance under any of its insurance policies to or for the benefit of the Consultant.

16.1.2 Notwithstanding Article 16.1.1, the Company may at its discretion at any time procure one or more project-specific professional errors and omissions insurance policies, wrap-up general liability insurance policies, and builder’s all-risk

property insurance policies. If and when such insurance policies are placed, the Consultant and Company shall, in accordance with the Company's directions at the time upon advice of its insurance consultants, coordinate such insurance with the insurance required to be procured by the Consultant under the Agreement to maximize the amount of insurance that will be available for the benefit of the Company and Consultant, primarily with regard to insurance covering professional errors and omissions.

16.2 Insurance by Consultant

16.2.1 The Consultant shall procure and maintain at its expense the following insurance, with limits not less than those specified, until the later of the Termination Date and the dates specified herein:

- (a) professional errors and omissions liability insurance in an amount not less than five million (\$5,000,000) dollars, which insurance shall be in effect for at least twenty four (24) months following completion of the Services or the Termination Date, whichever is longer;
- (b) commercial general liability insurance for an amount not less than twenty million (\$20,000,000.00) dollars for any one accident or occurrence, which insurance shall include the Company and its directors, officers, agents and employees as additional insureds and contain a cross liability clause;
- (c) automobile liability insurance, for an amount not less than two million (\$2,000,000.00) dollars per occurrence; and

Consultant shall ensure that each Subcontractor is either covered under the Consultant's insurance policies or provides their own insurance of the same type and with the same limits as required above for the Consultant.

16.2.2 With regard to professional errors and omissions insurance, it is a fundamental condition of this Agreement that:

- (a) within 10 days after execution of this Agreement, the Consultant shall provide written confirmation from its insurers or insurance brokers, in a form and with content acceptable to Company, that the Consultant has not less than five million (\$5,000,000) dollars, of professional errors and omissions insurance available;
- (b) thirty (30) days prior to the expiration date of any insurance policy noted in Article 16.1.2 (a) above, the Consultant will deliver to Company a statement from its insurers or insurance brokers, in a form and with content acceptable to Company, confirming to Company that the Consultant has, and will continue to have, at least five million (\$5,000,000) dollars of professional errors and omissions insurance available to it at that time; and

- (c) the Consultant will promptly notify Company in writing if, at any time throughout the period when the Consultant is performing the Services, the Consultant becomes aware of any claim against the Consultant for which, in its reasonable opinion, there is a reasonable likelihood that less than five million (\$5,000,000) dollars of its professional errors and omissions insurance remains available during that policy period to cover liability arising under this Agreement.

16.2.3 The commercial general liability policy shall:

- (a) provide cover in relation to liability arising out of any Claim by any person (including Company) in respect of:
 - (i) personal injury, death, disease or illness (including mental illness); or
 - (ii) loss of, damage to, or loss of use of, property,arising out of or as a consequence of the performance by the Consultant of its obligations under the Agreement.
- (b) contain a broad form property damage endorsement;
- (c) name Company as an additional insured and include an endorsement that such insurance is primary to any other insurance under which Company may be insured;
- (d) provide that:
 - (i) the policy operates as if there were a separate contract of insurance covering each insured;
 - (ii) a notice of a claim given by any one insured constitutes notice of a claim by all interested insured;
 - (iii) the insurer waives all rights, remedies or relief (express or implied) to which it might become entitled by subrogation against any of the persons comprising the insured; and
 - (iv) the failure to fulfill the terms of the policy by one insured does not prejudice the insurance in regard to any other insured.

16.2.4 Before commencing the performance of any part of the Services at the Site, and at any time on request of Company's Representative, the Consultant shall deliver to Company a statement from the Workers' Compensation Board of Newfoundland and Labrador that certifies that:

- (a) the Consultant is registered and in good standing and in compliance with applicable Law in the Province of Newfoundland and Labrador governing workers compensation; and

- (b) all Personnel of the Consultant performing the Services who are not covered by the Workers Compensation Act (Newfoundland and Labrador) are covered under personal optional protection cover available through the Workers' Compensation Board.
- 16.2.5 The Consultant will procure insurance policies in accordance with all requirements of this Article 16.2. If the Consultant fails to procure such policies or fails to provide certificates of insurance confirming such coverage in a form and with content acceptable to Company within thirty (30) days after the date of the Agreement, or if any insurance is cancelled and not immediately replaced with comparable insurance to the satisfaction of Company, then unless Company otherwise expressly agrees or directs in writing the Consultant shall immediately suspend and stop all Services, and Company may at any time by notice to the Consultant terminate the Agreement for material and substantial default by the Consultant.
- 16.2.6 All insurance policies shall provide that the insurance shall not be cancelled, reduced, restricted, terminated, or changed in any way without at least sixty (60) calendar days prior written notice to the Company by Insurance Company, sent by prepaid, registered mail to the head office of the Company. In the event of any such cancellation, reduction, restriction, termination, change, or lapse in any insurance, the Consultant shall immediately replace such insurance.
- 16.2.7 Prior to commencing the performance of any part of the Services, the Consultant shall have in place any other insurance that is required by Law and may also have in place any other insurance that the Consultant considers necessary or prudent.
- 16.2.8 Procuring and maintaining the insurance required by this Agreement is a fundamental and material condition of this Agreement. If the Consultant fails to maintain or effect and maintain any insurance policy required under the Agreement to be maintained or effected and maintained by the Consultant, Company may, but is not obliged to, effect or renew the relevant insurance policy, or pay the premium due in respect of that policy, and may recover the cost of doing so as a debt due from the Consultant and deduct it from amounts payable to the Consultant under the Agreement, or terminate the Agreement for default by the Consultant.
- 16.2.9 Where an insurer fails or refuses to pay any claims under an insurance policy covering the activities of the Consultant or its Subcontractor(s) relating to or arising out of the Services or performing the Agreement, the Consultant and its Subcontractor(s) shall not be released from any liability arising under the Agreement.
- 16.2.10 The Consultant shall, in respect of each insurance policy it is required to effect or maintain under the Agreement:

- (a) ensure that each professional errors and omissions insurance policy and each commercial general liability policy provides that the policy is primary and that the insurer waives all rights (express or implied) it might have in relation to contribution from Company or other insurers of Company;
- (b) obtain each insurance policy from insurers who are also licensed to underwrite insurance in Newfoundland and Labrador or acceptable to Company's Representative;
- (c) give to Company a certificate of insurance, in form and with content acceptable to Company, confirming coverage under all insurance policies is in place as of the Effective Date;
- (d) pay each premium on or before the due date and, when asked by the Company, produce evidence of payment;
- (e) comply with and abide by the terms and conditions of the insurance policy and pay, when required, any deductible payable under the terms of the insurance policy;
- (f) immediately rectify anything which might prejudice the insurance policy and reinstate the insurance policy if it lapses;
- (g) notify Company immediately if an event occurs which gives rise or might give rise to a claim under the insurance policy or which could prejudice the insurance policy or if the insurance policy is cancelled;
- (h) promptly on request from Company from time to time, provide certificates of insurance and certified copies of certificates of renewals and endorsements confirming that the insurance required to be procured by the Consultant is in effect and complies with all requirements of this Agreement; and
- (i) on request, other evidence of the insurance that Company reasonably requires.

16.3 Insurance of Consultant's property

16.3.1 The Consultant is liable for and shall provide insurance in such amounts as would be obtained by a competent consultant in the circumstances, for damage to or loss of the Consultant's property and the property of its Personnel.

16.4 Additional Insurance

16.4.1 During the Term, Company's Representative may, by written notice, require the Consultant at Company's cost:

- (a) to obtain additional insurance, or

- (b) to alter or amend the insurance policies to be effected by the Consultant under this Article 16.0.

16.5 Admissions

16.5.1 Except in respect of any Claim made by the Consultant against Company, the Consultant shall not make any admission of liability on behalf of Company or settle any claim under a policy of insurance referred to in this Article 16.0 relating to a Claim by or against Company without Company's prior written consent.

16.6 Effect of Insurance

16.6.1 No indemnity in the Agreement is waived by any provision of the Agreement with regard to insurance or by approval of any insurance policy and, except as expressly provided otherwise in the Agreement, the Consultant's liability to Company is not limited or otherwise affected by the terms of any insurance.

16.7 Occupational Health & Safety

16.7.1 The Consultant shall, and shall ensure that its Personnel, comply in all respects with any and all applicable Site safety policies, rules, regulations and directions given by Company and with its statutory obligations regarding occupational health and safety.

17.0 INTELLECTUAL PROPERTY RIGHTS

17.1 Consultant's IP

17.1.1 Company acknowledges that the Consultant remains the owner of all the Consultant's IP and that nothing in the Agreement prevents, limits or restricts the Consultant's subsequent use or exploitation of the Consultant's IP.

17.2 Agreement IP

17.2.1 The Consultant agrees that all the Agreement IP (if any) will be vested in Company and will be Company's property as and when created and the Consultant assigns all right, title and interest in and to the Agreement IP (whether created before, on or after the Effective Date) to Company. In addition to any other licences granted by the Consultant to Company under the Agreement, the Consultant grants to Company a fully paid, non-exclusive, transferable, royalty free, irrevocable, perpetual licence of the Consultant's IP to the extent necessary for Company to fully enjoy and exploit the Agreement IP including for the purposes of repairing, maintaining or servicing (including the supply of replacement parts), or alterations or additions to, the Project. In addition to its other rights under the Agreement, Company may sub-licence this licence to any person in accordance with Article 17.3.

17.2.2 On Company's request, the Consultant shall execute any formal assignment or other document required to give effect to this Article 17.2.

17.3 Sub-licence of Consultant's IP

17.3.1 Company may sub-licence its rights to the Consultant's IP to any person where that person requires access to the Consultant's IP for the purposes of providing services or works to Company with respect to the Project.

17.4 Company IP and Agreement IP

17.4.1 The Consultant acknowledges and agrees that Company remains the owner of Company IP and that nothing in the Agreement prevents, limits or restricts Company's subsequent use or exploitation of Company IP.

17.4.2 Company grants to the Consultant a non-exclusive, non-transferable, revocable licence to use Company IP for the sole purpose of performing its obligations under the Agreement.

17.4.3 The Consultant shall:

- (a) not reproduce, communicate, use, register or attempt to register any interest in or otherwise deal with Company IP or the Agreement IP, or allow any other person to do the same, for any purpose other than to perform the Consultant's obligations under the Agreement;
- (b) observe and respect Company's ownership of the Company IP; and
- (c) upon expiration or termination of the Agreement, without retaining a copy (whether in tangible or electronic form) return all Company IP and Agreement IP to Company.

17.5 Consultant Warranty

17.5.1 The Consultant warrants that:

- (a) the Consultant has the right to assign all the Agreement IP to Company in accordance with Article 17.2;
- (b) use by Company, or by another person at the direction or with the permission of Company, of Consultant IP and Agreement IP in accordance with the Agreement will not infringe the Intellectual Property Rights of any third person or breach any applicable Law;
- (c) neither Company, nor any other person acting at the direction or with the permission of Company, is liable to pay any third person any licence or other fee in respect of the use of Consultant IP and Agreement IP.

17.6 General Consultant Obligations

17.6.1 The Consultant shall:

- (a) disclose to Company all the Agreement IP as and when it is created;
- (b) use reasonable efforts to ensure that any Subcontractor Agreement the Consultant enters into in relation to the Agreement contains an assignment by the Subcontractor to Company of all Intellectual Property Rights in any Agreement IP created by the Subcontractor for the purposes of the Agreement;
- (c) notify Company as soon as the Consultant becomes aware of any suspected, threatened or actual infringement of any Intellectual Property Rights in the Agreement IP and provide all reasonable assistance in relation to that infringement; and
- (d) provide all reasonable assistance Company may request to protect, perfect, enforce, defend or assert its interests in and right to use and exploit the Agreement IP (including assisting Company to take action against persons infringing the Agreement IP). The Consultant shall also ensure that its Personnel provide all reasonable assistance to Company as set out in this Article 17.6.1(d).

18.0 INTELLECTUAL PROPERTY RIGHTS AND THIRD PERSONS**18.1 Warranty**

18.1.1 The Consultant warrants that the Services IP and its use by Company, or by another person at the direction of Company, does not and will not infringe the Intellectual Property Rights of any person. The Consultant shall indemnify Company and its Personnel against any Liability, whether direct or indirect, arising out of a claim by any person against Company or its Personnel alleging that the Services IP and its use by Company, or by another person at the direction of Company, infringes any Intellectual Property Right.

18.2 Operation of Indemnity

18.2.1 The indemnity referred to in Article 18.1 shall be granted whether or not legal proceedings are instituted and, if such proceedings are instituted, irrespective of the means, manner or nature of any settlement, compromise or determination.

18.3 Notification of Infringement

18.3.1 Company shall notify the Consultant as soon as practicable of any infringement, suspected infringement or alleged infringement of the Intellectual Property Rights of any person by reason of use by Company, or by another person at the direction of Company, of the Services IP.

18.4 Defence

18.4.1 Without prejudice to Company's right to defend a claim alleging such infringement, the Consultant shall if requested by Company but at the Consultant's expense, conduct the defence of a claim by a person which alleges infringement of Intellectual Property Rights by reason of use by Company, or by another person at the direction of Company, of the Services IP. The Consultant shall observe Company's reasonable directions relating in any way to that defence or to negotiations for settlement of the claim.

18.5 Conduct of Defence

18.5.1 Company shall, if requested by the Consultant but at the Consultant's expense, provide the Consultant with reasonable assistance in conducting the defence of a claim pursuant to Article 18.4. The Consultant shall reimburse Company for all verified expenses incurred under this Article 18.5 within 30 days after receipt of Company's written demand.

18.6 Consultant's Obligations

18.6.1 Without limiting Articles 18.1 to 18.5, if it is determined by any independent tribunal of fact or law, or if it is agreed between the persons to the dispute that an infringement of Intellectual Property Rights has occurred, the Consultant shall at its sole expense:

- (a) modify the Services IP or the relevant parts of the Services IP in order to avoid continuing infringement; or
- (b) procure for Company the right to continue the use or possession of the infringing Services IP or the relevant parts of the Services IP.

18.7 Moral Rights

18.7.1 The Consultant shall (at its cost) procure from each of its Personnel or any third persons engaged in the performance of the Services an irrevocable and unconditional consent, in favour of the Consultant (for the benefit of the Consultant and its clients, including Company and its Personnel), which is legally enforceable by Company and its Personnel, for Company and each of its Personnel to:

- (a) reproduce, transmit, communicate, adapt or publish any Agreement Material or any adaptation of them anywhere in the world, in whatever form Company or its Personnel think fit (including the making of any distortions, additions or alterations to the Agreement Material or any adaptation of the Agreement Material) as so reproduced, transmitted, communicated, adapted or published;

- (b) reproduce, transmit, communicate, adapt or publish the Agreement Material or any adaptation of them anywhere in the world without making any identification of any person in relation to such reproduction, transmission, communication, adaptation or publication; and
- (c) do anything in relation to the Agreement Material that (but for these consents) would otherwise infringe any moral rights or similar rights of any person anywhere in the world.

18.7.2 Where Company reasonably believes that the Consultant has not complied with its obligations set out in Article 18.7.1, the Consultant shall ensure that each of its Personnel or any third persons engaged in the performance of the Services do all such other things and execute all such documents as reasonably requested by Company or its Personnel in order to confirm or give effect to any of the matters stated in this Article 18.7.

18.8 Meaning of Use

18.8.1 In this Article 18.0 a reference to the use by Company of the Services IP includes any reproduction or exploitation of the Services IP by any means.

19.0 AGREEMENT MATERIAL

19.1 Keeping Agreement Material Safe

19.1.1 The Consultant shall, and shall ensure its Personnel, protect, keep safe and secure all documents, notes, reports, memoranda, materials, software, disks and all other media, articles and things provided by Company to the Consultant including all Agreement Material and Company Documentation.

19.2 Reproduction of Agreement Material

19.2.1 The Consultant shall ensure that:

- (a) Company Documentation;
- (b) Agreement Material; and
- (c) anything else recording, containing, setting out, or making reference to the Services,

is used, copied, supplied or reproduced only to the extent necessary for the purposes of performing the Services, unless the Consultant has obtained the prior written approval of Company to use it for any other purpose.

19.3 Return of Agreement Material

19.3.1 Subject to Article 19.3.2, the Consultant shall, within 7 days before the Termination Date (or such other period directed by Company's Representative), provide or return (as the case may be) to Company:

- (a) all Company Documentation;
- (b) all Agreement Material; and
- (c) anything recording, containing, setting out, or making reference to the Services, except as otherwise specified in a direction of Company's Representative.

19.3.2 Subject to Article 22.0, the Consultant may keep one (1) set of the Agreement Material referred to in Article 19.3.1 solely for legal and audit purposes.

20.0 SUBCONTRACTORS**20.1 Subcontracts**

20.1.1 The Consultant shall not subcontract the whole of the Services.

20.1.2 The Consultant shall not subcontract any part of the Services without the prior written approval of Company's Representative.

20.1.3 With a request for approval, the Consultant shall provide to Company's Representative particulars in writing of:

- (a) the part of the Services to be subcontracted; and
- (b) the name and address of the proposed Subcontractor.

20.1.4 The Consultant shall provide to Company's Representative other information concerning the proposed Subcontractor or proposed Subcontract which Company's Representative reasonably requests.

20.1.5 Within 14 days after a request by the Consultant for approval, Company's Representative shall advise the Consultant of approval or the reasons why approval is not given.

20.1.6 The Consultant shall ensure that any Subcontract:

- (a) contains a term that the Subcontractor shall not assign or subcontract without the prior consent in writing of the Consultant and Company;
- (b) requires the Subcontractor to give to Company a copy of any notice of default served upon the Consultant under the Subcontract;

- (c) enables the Consultant, regardless of default by the Consultant or the Subcontractor, to terminate the Subcontract if the Agreement is terminated for any reason;
- (d) contains an acknowledgement by the Subcontractor that it will, if requested by Company and at Company's option:
 - (i) consent to an assignment (at no cost to Company) of the Consultant's right, title and interest under the Subcontract to Company; or
 - (ii) enter into a novation (at no cost to Company) of the Subcontract from the Consultant to Company; or
 - (iii) enter into an agreement with Company on the same terms and conditions as the Subcontract, with necessary changes only (such as the names of the parties) for the incomplete parts of the Services that were originally subcontracted under the Subcontract by the Consultant to the Subcontractor;
- (e) requires the Subcontractor, at its own cost, to provide to Company immediately on request all Documentation produced by or on behalf of the Subcontractor in connection with the Services;
- (f) contains a term which ensures that Company obtains the benefit of any warranties to be provided by the Subcontractor to the Consultant;
- (g) contains a term that copyright in all Documentation produced by or on behalf of the Subcontractor as between the Subcontractor and the Consultant is the property of and vests in the Consultant;
- (h) contains terms and conditions that are generally consistent with the terms and conditions of the Agreement and which may be reasonably necessary to enable the Consultant to fulfill the Consultant's obligations to Company.

20.2 Consultant's Responsibility

20.2.1 Where parts of the Services are subcontracted, the Consultant shall remain responsible for the performance of those Services and for the acts, omissions and defaults of the Subcontractor and its Personnel as if they were acts, omissions or defaults of the Consultant.

20.3 Insurance and Subcontractors

20.3.1 Where the Consultant enters into a Subcontract, the Consultant shall ensure that the Subcontractor effects or maintains the classes of insurance to be effected and maintained by the Consultant under the Agreement or shall ensure that the

20.3.2 The Consultant shall provide Company's Representative with certificates of insurance that demonstrate compliance with the obligations in Article 20.3.1 before the Subcontractor commences performance of any part of the Services.

21.0 ASSIGNMENTS

21.1 Meaning of Assign

21.1.1 In this Article 21.0, "assign" includes:

- (a) sell, transfer, licence, franchise or otherwise dispose or part with possession of; and
- (b) mortgage, charge, grant a lien, pledge, hypothecate, declare a trust in respect of or grant any interest in, by way of security or otherwise.

21.2 Assignment by Company

21.2.1 Company may, without the prior consent of the Consultant, assign the Agreement to any Affiliate or to any successor or replacement corporation or similar entity in connection with any merger, consolidation or other reorganization of Company or transfer of all or any part of Company's assets.

21.3 Assignment by Consultant

21.3.1 The Consultant may not assign the Agreement to any third person without the prior written consent of Company.

21.3.2 Subject to Article 21.3.3, the Consultant may, with the prior written approval of Company not to be unreasonably withheld, assign the Agreement to any Affiliate of the Consultant that is a parent or subsidiary of the Consultant.

21.3.3 Company does not unreasonably withhold its consent if it:

- (a) requires the Consultant to first demonstrate to Company's satisfaction that all of the Key Personnel as identified in the Agreement will transfer to the assignee and after the assignment continue to perform the Services in their same positions and with their same authorities as they had prior to the assignment;
- (b) requires the Consultant to pay all reasonable expenses (including legal costs on a solicitor and own client or full indemnity basis, whichever is greater) incurred by Company in investigating the proposed assignee or in connection with the proposed assignment;

- (c) requires the proposed assignee to agree in writing with Company to comply with the Agreement as if it were an original party to the Agreement; or
- (d) considers that the assignment will have an adverse effect on the validity or enforceability of the Security previously delivered by or on behalf of the Consultant to Company under the Agreement.

21.3.4 The Consultant acknowledges and agrees that no permitted assignment in any way relieves the Consultant from the performance of any of its obligations under the Agreement and:

- (a) the Consultant will then remain jointly and severally liable with the assignee for all obligations and liabilities of the Consultant under the Agreement; and
- (b) Company may at its sole option have recourse against either or both the assignee and the Consultant for any and all obligations or liabilities of the Consultant.

21.4 Assignment of Subcontracts

21.4.1 Where Company has a right to and terminates the Agreement, upon the request of Company the Consultant shall:

- (a) assign (without further payment) the benefit of any Subcontract to Company; or
- (b) enter into a novation (without further payment) of the Subcontract Agreement from the Consultant to Company; or

21.4.2 Upon request by Company, the Consultant shall immediately complete and execute in favour of Company all such documents and give all notices to the relevant Subcontractor(s) as may be necessary to give effect to, complete or perfect any such assignment or novation under applicable Law.

21.4.3 For the purposes of effecting any assignment or novation under Article 21.4.1, the Consultant hereby irrevocably appoints Company to be the Consultant's attorney with authority to execute such documents as are necessary to give effect to the assignment or novation and to bind the Consultant accordingly.

21.4.4 The assignment or novation of any Subcontract and provision of guarantees and warranties (whether by the Subcontractor or otherwise) does not limit the rights, powers and remedies of Company under the Agreement or at applicable Law.

22.0 CONFIDENTIALITY**22.1 Obligation and Confidentiality**

22.1.1 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 Termination 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.

To the extent Company is subject to the provisions of the Privacy Law, all documents and other records in the custody of or under the control of the Company and its Affiliates, and in relation to the Services in the custody of or under the control of the Consultant, will be subject to the Privacy Law. Subject to the limitations of the Privacy Law, to the extent it applies to the Company or its Affiliates the confidentiality obligations contained in this Agreement shall apply.

22.1.2 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 Article 22.0 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 Article 22.0 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 of the following and each Party undertakes and agrees to hold in strict confidence all Confidential Information received from the other Party and:

- (a) not to disclose or permit or cause that Confidential Information to be disclosed to any person other than any of its own Personnel who reasonably require access to the Confidential Information; and
- (b) not to make use of that Confidential Information (including duplicating, reproducing, distributing, disseminating or directly or indirectly deriving information from the Confidential Information), except and solely to the extent permitted or required by the Agreement,

unless the Party receiving the Confidential Information has obtained the prior written consent of the Party disclosing it to do so (which consent may be withheld by the Disclosing Party in its discretion or given on such terms as it sees fit).

22.2 Exceptions

22.2.1 Article 22.1 does not apply to:

- (a) the disclosure of information by a Party in order to comply with any applicable Law or legally binding order of any Court, Authority or rule of any recognised stock exchange on which it or any of its Affiliate(s) is listed, as long as prior to such disclosure the Disclosing Party gives notice to the other Party with full particulars of the proposed disclosure; or
- (b) disclosure as part of the process of dispute resolution under Article 28.0.

22.3 Terms of the Agreement

22.3.1 Neither Party may disclose the terms of the Agreement to any person other than its Personnel, except in accordance with Articles 22.2 or 22.4.

22.4 Disclosure to Personnel

22.4.1 Each Party who discloses Confidential Information of another Party to its Personnel, shall ensure that any such Personnel:

- (a) are informed of the confidential nature of the information disclosed and the Party's obligations under this Article 22.0; and
- (b) comply with the terms of this Article 22.0 as if they were bound by it.

22.5 Breach of consent

22.5.1 The breach of any of the conditions contained in a consent granted pursuant to Article 22.1 will be deemed to be a material breach of the Agreement.

22.6 Additional obligations

22.6.1 The obligations in this Article 22.0 are in addition to and do not diminish the obligations of each Party in respect of secret and confidential information at common law or under any statute or trade or professional custom or use.

22.6.2 Prior to release of certain Confidential Information the disclosure which the Company considers sensitive or otherwise in need of restricted access, Company may require Consultant and its Personnel requiring access to such restricted Confidential Information to execute and deliver a confidentiality and non-disclosure agreement in such form and with such terms and conditions as Company may require.

22.7 Return of Confidential Information

22.7.1 If requested by Company, whether prior to or after the expiry or earlier termination of the Agreement, the Consultant shall promptly deliver to Company all Confidential Information in the custody, possession or control of the Consultant or any of its Personnel.

23.0 CHANGES, CHANGE PROPOSALS, CHANGE REQUESTS AND CHANGE ORDERS**23.1 Changes**

23.1.1 Company may at any time authorize or direct a Change by Change Order or Change Request, as applicable. If the Change requires the omission of any of the Services, Company may have the omitted Services carried out by others.

23.1.2 Company is not obliged to pay the Consultant for any work or services performed that are not within this Agreement, or to pay or reimburse the Consultant for any Reimbursable Costs incurred in connection with any work or services performed that are not within this Agreement, prior to the issue of a Change Order or Change Request by the Company to the Consultant in respect of that work or services, as applicable.

23.2 Change Requests, Change Proposals and Change Orders

23.2.1 If Company wishes to make a Change, Company's Representative shall discuss the proposed Change with Consultant's Representative in advance. If the Parties agree to the Change, the Company shall execute a Change Request, either instructing Consultant to proceed with the work and provide a cost and schedule impact later or the Company will instruct the Consultant to prepare a cost and schedule impact for Company review and acceptance prior to proceeding with the work. Consultant will prepare a Change Proposal in either case for Company review and acceptance. Upon receipt of the Change Proposal both Parties will, as soon as reasonably practicable, attempt to reach agreement on the Change. If the Company accepts and agrees with the Change Proposal submitted by the Consultant, the Company will prepare a Change Order for execution by both parties.

23.2.2 When a Change Request is issued by the Company to Consultant, upon request from the Company the Consultant shall, within fourteen (14) days or such longer period as may be agreed by the Company, submit to the Company a Change Proposal for the performance of the Change Request. Unless directed otherwise by Company, the Change Proposal shall include:

- (a) a proposed budget shall be stated in the Change Proposal;
- (b) a proposed scope for the work and services to be performed;
- (c) a description of the Consultant's proposed methodology with respect to the performance of that work or services;
- (d) the names of the Key Personnel to be involved in the performance of that work or services;

- (e) details and resumes of senior employees to be involved in the performance of that work or services and the parts to be performed by those senior employees;
- (f) details of any proposed Subcontractors to be engaged; and
- (g) any other information required by Company, acting reasonably.

23.2.3 Notwithstanding Articles 23.2.1 and 23.2.2 and at the discretion of the Company, the Company may issue a Change Order without the issuance of a Change Request.

23.3 Disputes regarding Change Proposals

23.3.1 If the Consultant and Company fail to agree on everything required to convert the Change Proposal to a Change Order, or to carry out a Change Order issued in accordance with Article 23.2.3, the Consultant shall nevertheless promptly proceed with implementation and performance of the associated Change. If the Consultant is of the reasonable opinion that implementing the Change may:

- (a) impair its ability to meet the Project Milestone Schedule;
- (b) cause it to be in breach of any applicable Law, requirements of any Authority or requirements of any applicable permit, licence or approval;
- (c) cause either Party to be in breach of its obligations under any provision of the Agreement,

then the Consultant shall within 7 days after receipt of the disputed Change give notice to Company of same, which will then constitute a Dispute to be resolved under Article 28.0.

23.3.2 If the Consultant is of the opinion reasonably held that compliance with a Change Request will result in an error, omission or defect in the engineering or design provided as part of the Services, or reduce or impair the safety or quality of the Project or cause a material risk of harm to the public safety, within the earlier of 5 days after receipt of the Change Request and commencing to comply with the Change Request the Consultant shall give written notice to the Company's Representative of such concerns and request written instructions confirming whether the Company still wishes the Consultant to proceed with implementation of the Change Request. The Company's Representative, after consulting with the Consultant with regard to such concerns, may withdraw, amend or confirm the Change Request.

23.4 Deemed acceptance of Change Request

23.4.1 Failure of the Consultant to give notice in accordance with and within the time limits specified in Article 23.3 will constitute acceptance by the Consultant of the Change Request.

23.5 Consultant's Obligations

23.5.1 If the Consultant receives a Change Order or Change Request, it shall perform the Change in accordance with the Agreement.

23.6 Compensation for Changes

23.6.1 Except as may be otherwise agreed between Company and the Consultant, for any additional Services it is required to perform pursuant to a Change Order or Change Request, the Consultant's only entitlement for additional compensation is for the additional time expended by its Personnel and additional Reimbursable Costs incurred in relation to the Change Order or Change Request, as applicable.

23.7 No Compensation

23.7.1 The Consultant has no entitlement to any additional compensation or to any other monetary compensation if it changes or varies the scope of the Services relating to the Project without that change or variation being first authorised by a Change Order or Change Request.

24.0 SUSPENSION**24.1 Notice to Suspend**

24.1.1 Company may at any time give a written direction to the Consultant to suspend the performance of the Services.

24.1.2 If the Consultant receives a direction from Company under Article 24.1.1, the Consultant shall immediately suspend the performance of the Services.

24.2 Resumption

24.2.1 Subject to Article 24.4, Company may at any time give a written direction to the Consultant to resume the performance of the Services which had been suspended.

24.2.2 If the Consultant receives a direction under Article 24.2.1 the Consultant shall promptly resume the performance of the Services which had been suspended. Any applicable Milestone Dates will be extended by the number of days equal to the period of delay caused by the suspension plus any additional days as may be reasonably required to resume performance. The number of additional days (if any) is to be agreed between Company and the Consultant and, failing

agreement, as determined by Company's Representative acting reasonably. Any determination by Company's Representative will be without prejudice to the rights of the Consultant under Article 28.0.

24.3 Compensation

24.3.1 Subject to Article 24.4.2, Company will pay the Consultant compensation for the suspension of the Services on such basis as the Parties may agree or, failing agreement, the amount that will allow the Consultant to pay its direct costs for:

- (a) keeping its Personnel and Subcontractors on standby (to the extent stated in the notice referred to in Article 24.1.1); and
- (b) the mobilization and demobilisation of the Consultant's Personnel and Subcontractors, and equipment (if any).

24.4 Termination

24.4.1 Subject to Article 24.4.2, if a suspension of the Services which is the subject of a direction under Article 24.1.1 continues for more than 6 months:

- (a) the Consultant may give a written notice to Company requiring Company to give a direction to the Consultant under Article 24.2.1 to resume performance of the Services; and
- (b) if Company fails to give a direction to the Consultant under Article 24.2.1 within 30 days of receiving the Consultant's notice under Article 24.4.1(a), the Consultant:
 - (i) may terminate the Agreement by giving 7 days' written notice to Company;
 - (ii) will be entitled to be paid in accordance with Article 12 for the Services performed in the relevant period up to the date of termination or the date the Consultant ceased to perform the Services, together with any amounts to be paid in accordance with Article 24.3; and
 - (iii) acknowledges and agrees that it is not entitled to make any other Claim against Company except as otherwise provided in the Agreement.

24.4.2 If Company gives a direction under Article 24.1.1 as a result of a breach by the Consultant of its obligations under the Agreement, the Consultant is not entitled to:

- (a) terminate the Agreement under Article 24.4.1(b)(i); or
- (b) make any other Claim against Company arising out of or in connection with the direction.

25.0 FORCE MAJEURE**25.1 Force Majeure Event**

25.1.1 “Force Majeure Event” means any event or circumstance (or combination of events and circumstances) including acts of God, acts of civil or military authority, fires, floods, epidemics, quarantine restrictions, war or riot, which occurs and:

- (a) which could not have been reasonably foreseen; and
- (b) is beyond the reasonable control of the Party affected by that event or circumstance or both; and
- (c) causes delay in, or prevention of, the performance by the affected Party of any of its obligations under the Agreement; and
- (d) could not be prevented, overcome or remedied by the affected Party through reasonable care and proper precautions or the consideration of reasonable alternatives with the intention of avoiding the effects of the relevant event or circumstance or the expenditure of a reasonable sum of money, including a strike or industrial dispute which:
 - (i) has national, provincial or regional application;
 - (ii) affects the performance of the affected Party’s obligations under the Agreement; and
 - (iii) lasts for more than 7 consecutive days,

but does not include:

- (e) wet or otherwise inclement weather, including temperatures and snowfall which over a twenty (20) year period can normally be expected to occur at least once in the areas in which different parts of the Project are located; or
- (f) the obligation to pay money or the non-receipt of money;

25.2 Notice

25.2.1 If a Force Majeure Event occurs, a Party affected by the Force Majeure Event shall give the other Party prompt written notice of the Force Majeure Event.

25.3 Affected obligations

25.3.1 The obligations of the Party affected by the Force Majeure Event are suspended, to the extent that they are affected by the Force Majeure Event, from the date of the written notice under Article 25.2 until cessation of the Force Majeure Event. The Party affected by the Force Majeure Event shall use all reasonable efforts to mitigate and remove the

effect of the Force Majeure Event which is the subject of its written notice given under Article 25.2 and to continue to perform the obligations affected by that Force Majeure Event.

25.4 Cessation of Force Majeure

25.4.1 On cessation of the Force Majeure Event which is the subject of a written notice given under Article 25.2 the Party who gave such notice shall promptly:

- (a) give written notice to the other Party of the cessation of the Force Majeure Event; and
- (b) resume performance of the obligations that were suspended as a result of the Force Majeure Event.

25.5 Termination resulting from Force Majeure delays

25.5.1 If a Force Majeure Event delays the performance of the Services for more than 180 days, either Party may terminate the Agreement by giving 45 days written notice to the other Party.

25.6 Entitlements on Termination

25.6.1 Subject to Article 25.6.2, each Party acknowledges and agrees that it is not entitled to make any Claim (whether under the Agreement or otherwise) against the other Party for compensation of any kind whatsoever or for any Liability incurred or sustained in connection with the non performance of obligations due to a Force Majeure Event or with the termination of the Agreement under Article 25.5.

25.6.2 The Consultant will be entitled to retain or be paid (as the case may be) any amounts previously paid or due to it for Services performed under the Agreement prior to the termination of the Agreement under section 25.5.

26.0 DEFECTIVE SERVICES

26.1 Consultant to Rectify Defects in the Services

26.1.1 The Consultant shall at its own cost:

- (a) promptly rectify or re-perform any and all Defective Services; and
- (b) subject to Article 26.1.3, where any defects or omissions in the Work have been caused or contributed to by any Defective Services, investigate, re-design and perform such additional services as required for the Company to have the relevant Contractor(s) rectify any defects or omissions in the Work, (“**Rectification Services**”).

26.1.2 If Company becomes aware of any Defective Services, Company may give notice in writing to the Consultant of the Rectification Services that Company requires the Consultant to perform in respect to those Defective Services.

26.1.3 If the rectification by Contractor(s) of any defects in the Work will result in Company incurring any expenditure (whether capital or operating), then the Consultant shall obtain Company's Representative's instructions with respect thereto and not authorise or permit the Contractor(s) to undertake that rectification without the prior written approval of Company.

26.1.4 Prior to performing any Rectification Services, Company may require the Consultant to submit to it for consideration a detailed proposal specifying the re-design, engineering, or remedial work (as the case may be) that the Consultant believes is necessary in order to satisfactorily perform any Rectification Services.

26.2 Cost of Rectification of Defects

26.2.1 The Consultant shall perform the Rectification Services at its cost without recourse to the Company, and shall reimburse Company for its associated costs.

26.3 Failure to Rectify

26.3.1 Where the Consultant is given notice under Article 26.1.2 and fails to perform the Rectification Services, Company may have the Rectification Services carried out by others and Company's costs incurred under this Article 26.3 will be a debt due and payable by the Consultant to Company.

26.4 Records

26.4.1 The Consultant shall:

- (a) maintain and cause its Personnel to maintain full and comprehensive records of all time spent by its Personnel in rectifying or re-performing any Defective Services or performing any Rectification Services; and
- (b) within 10 days after receiving notice from Company requesting copies of those records, provide copies of those records to Company.

27.0 INDEMNITY AND LIABILITY

27.1 Indemnity by Consultant

27.1.1 Subject to Articles 27.1.2 and 27.2, the Consultant shall indemnify Company from and against any and all Liability which Company suffers, sustains or incurs arising out of or in connection with:

- (a) any error, act or omission of the Consultant or its Personnel;

- (b) any failure by the Consultant or its Personnel to observe or perform its obligations under the Agreement or any breach by the Consultant of the Agreement;
- (c) the breach of, or failure to comply with, any applicable Law or the requirements of any permits, licences or approvals by the Consultant or its Personnel.

27.1.2 The Consultant's liability under Article 27.1.1 will be reduced proportionately to the extent that the Liability was caused by a negligent act or omission of Company or its Personnel.

27.1.3 Every indemnity, exemption, limitation, defence, immunity or other benefit contained in the Agreement or otherwise to which Company is entitled will be held by Company as trustee for the benefit of, and will extend to protect, its Personnel.

27.1.4 It is not necessary for Company or its Personnel to incur expense or make payment before enforcing a right of indemnity conferred by the Agreement.

27.2 Maximum Liability

27.2.1 In this Article 27.2:

- (a) **"Consultant's Limit of Liability"** means:
 - (i) the Insurance Proceeds, and
 - (ii) 25% of the total compensation paid to the Consultant under the Agreement,
- (b) **"Event"** means the event or occurrence which gives rise to or which is the cause of or contributes to the Loss;
- (c) **"Insurance Proceeds"** means the greater of:
 - (i) any amount to which the Consultant is entitled in respect of an Event or Loss to receive from an insurer under any insurance policy that is required to be maintained under the Agreement by the Consultant (whether in single or multiple amounts) or under any insurance provided by the Company under which the Company has, pursuant to Article 16.1.2, extended cover and added the Consultant as an additional insured; and
 - (ii) the total amount that would have been recovered under any insurance policy that is required to be maintained under the Agreement by the Consultant, or that would have been recovered under any insurance policy provided by the Company under which the Company has, pursuant to Article 16.1.2, extended cover and added the Consultant as an

additional insured, except for any acts or omissions of the Consultant in relation to the applicable insurance policy, including a breach of the policy terms, failure to effect or maintain an insurance policy, or a failure to diligently pursue a claim for indemnity under any insurance policy; and

- (d) “Loss” means any Liability;

27.2.2 Subject to Article 27.4 and notwithstanding any other provision of the Agreement to the contrary, the Consultant’s liability to Company for any Loss arising out of or in connection with the Agreement including:

- (a) any breach of the Agreement by the Consultant;
- (b) any negligent act or omission of the Consultant or its Personnel in the course of performing the Consultant’s obligations under the Agreement;
- (c) any breach of or non-compliance with any Law by the Consultant or its Personnel in the course of performing the Consultant’s obligations under the Agreement,

is limited as follows:

- (d) where the Event or Loss is an insured risk under an insurance policy required to be maintained by the Consultant in accordance with the Agreement (or under any insurance provided by the Company under which the Company has, pursuant to Article 16.1.2, extended cover and added the Consultant as an additional insured), to the:
- (i) the Consultant’s Limit of Liability;
- (e) where neither the Event or Loss are insured risks under any insurance policy required to be maintained by the Consultant in accordance with the Agreement (or under any insurance provided by the Company under which the Company has, pursuant to Article 16.1.2, extended cover and added the Consultant as an additional insured), to the Consultant’s Limit of Liability.

27.2.3 For the avoidance of doubt Company and the Consultant acknowledge and agree that:

- (a) where an Event or Loss is an insured risk under an insurance policy required to be maintained by the Consultant in accordance with the Agreement, the Consultant shall pay to Company the amount of the deductible or self insured retention (if any) applicable to any grant of indemnity under the relevant insurance policy together with the Insurance Proceeds;
- (b) until the liability of the Consultant to Company arising out of or in connection with an Event or Loss has been satisfied, any Insurance Proceeds shall be remitted to Company without any deduction or set off whatsoever; and

- (c) until the Consultant remits any Insurance Proceeds to Company in accordance with Article 27.2.3(b), the Consultant holds those Insurance Proceeds on trust for Company.

27.3 Excluded Liability

27.3.1 Subject to Article 27.4 and despite any provision of the Agreement to the contrary, neither Party will be liable to the other Party for or in relation to any indirect or consequential loss, liability or damage, including:

- (a) loss of use of property which has not been physically lost, damaged or destroyed;
- (b) business interruption, loss of actual or anticipated revenue, income or profits or any other form of economic loss;
- (c) special damages, however arising and despite any knowledge, awareness, expectation, representation, reliance or dependency on the part of either Party at the time of entry into the Agreement, under or in connection with it; or
- (d) restitution or restitutionary damages.

27.4 Exceptions to Cap on Liability

27.4.1 Notwithstanding any other provision of the Agreement, any limitations of liability in favour of the Consultant in the Agreement will not apply to the Consultant's liability for the following:

- (a) any Liability sustained or incurred by Company arising out of or resulting from the fraud, gross negligence, recklessness or wilful or intentional misconduct of the Consultant or its Personnel;
- (b) wilful breach or repudiation of the Agreement;
- (c) the Consultant's liability (if any) to third persons, including the Consultant's liability to:
 - (i) the public;
 - (ii) adjacent property owners and occupiers of adjacent properties to the Site for damage to or loss of their property or equipment;
 - (iii) any person for liability for pollution or environmental damage caused by the Consultant or those for whom the Consultant is responsible under the Agreement; or

- (iv) Authorities, including for any liabilities imposed under applicable Law in relation to workers employed by or through the Consultant for the performance of the Services;
- (d) any Claim by a third person against Company or Liability incurred by Company to a third person in respect of which the Consultant is required to indemnify Company under the Agreement;
- (e) any Liability suffered, sustained or incurred by Company in connection with the breach by the Consultant or its Personnel of Articles 14.0, 17.0, 18.0 and 22.0.

28.0 DISPUTE RESOLUTION

28.1 Notice of Dispute

28.1.1 If any dispute, controversy, claim, question or difference of opinion arises between the Parties under this Agreement including an interpretation, enforceability, performance, breach, termination or validity of this Agreement ("**Dispute**"), the Party raising the Dispute shall notify the other Party within (30) days of the Dispute arising unless this Agreement provides another time period to provide such notice, and such notice shall provide particulars of the Dispute. If the Dispute is not resolved by the Parties within fifteen (15) Business Days from the date of the notice then a Party may take whatever action is deemed appropriate pursuant to this Agreement. For greater certainty, a Party must comply with this Article 28.1.1 before commencing any further action, legal or otherwise, with respect to a Dispute under this Agreement.

29.0 DEFAULT AND TERMINATION

29.1 Default

29.1.1 If a Party ("**Defaulting Party**"):

- (a) is in breach of or default under the Agreement (but in no event will any failure to comply with any schedule or deadline requirement comprise a default except to the extent caused or contributed to by a failure of the Consultant to diligently perform the Services or by the breach of a material provision of the Agreement);
or
- (b) has breached a representation or warranty which it has given to the other Party under the Agreement, including a warranty made under Article 7.0,

then the other Party may give the Defaulting Party a notice:

- (c) specifying the alleged breach of or default under the Agreement;

- (d) specifying a reasonable time and date by which the Defaulting Party shall rectify the breach or default (or overcome their effects) which period shall not be less than 30 days; and
- (e) requiring the Defaulting Party to show cause in writing why the other Party should not exercise its rights under Article 29.2.

29.1.2 If the other Party gives the Defaulting Party a notice referred to in Article 29.1.1, then the Defaulting Party shall:

- (a) comply with the notice; and
- (b) give the other Party a program to rectify the relevant default or remedy the breach (or overcome their effects) in accordance with the terms of the other Party's notice.

29.1.3 If the Defaulting Party fails to rectify or fails to take reasonable steps to commence rectifying a default or remedy a breach (or overcome their effects) in accordance with the terms of a notice referred to in Article 29.1.1:

- (a) the other Party may take any action it considers appropriate to:
 - (i) rectify that default; or
 - (ii) remedy that breach; and
- (b) the Defaulting Party shall indemnify the other Party against any Liability it sustains or incurs in respect of that default or breach except to the extent such Liability arises from the negligence or wilful default of the other Party.

29.2 Termination following Default

29.2.1 A Party may terminate the Agreement, with immediate effect, by written notice to the Defaulting Party after it has previously given the Defaulting Party a notice under Article 29.1 and the Defaulting Party has not complied with that notice.

29.3 Termination for Insolvency

29.3.1 A Party may terminate the Agreement, with immediate effect, by written notice to the other Party ("**Insolvent Party**") if:

- (a) the Insolvent Party becomes, or informs, the other Party, creditors of the Insolvent Party generally or any particular creditor of the Insolvent Party that it is insolvent or unable to pay its debts as and when they fall due;
- (b) a liquidator or provisional liquidator is appointed in respect of the Insolvent Party;

- (c) a receiver or receiver and manager or an analogous person is appointed to the Insolvent Party or any of its property;
- (d) the Insolvent Party has a mortgagee seeking to exercise a right of possession or control over the whole or a part of its property;
- (e) the Insolvent Party enters into, or calls a meeting of its members or creditors with a view to entering into, a composition, compromise or arrangement with, or an assignment for the benefit of, any of its members or creditors, or a Court orders that a meeting be convened in respect of a proposed composition, compromise or arrangement between the Insolvent Party and its creditors or any class of its creditors, other than for the purpose of reconstruction or amalgamation;
- (f) the Insolvent Party has any execution, writ of execution, mareva injunction or similar order, attachment or other process made, levied or issued against it or in relation to any of its assets;
- (g) any application is made or other process commenced (not being an application or process withdrawn, discontinued or dismissed within 30 days of being filed) seeking an order for the appointment of a provisional liquidator, a liquidator, a receiver or a receiver and manager to the Insolvent Party;
- (h) the Insolvent Party is declared bankrupt or has filed for some form of protection from its creditors under applicable Law relating to or governing bankruptcy;
- (i) there is a resolution of creditors or members, or an order of a Court, to place in liquidation or bankruptcy or wind up the Insolvent Party; or
- (j) an event happens analogous to an event specified in Articles 29.3.1(a) to 29.3.1(i) to which the law of another jurisdiction applies and the event has an effect in that jurisdiction similar to the effect which the event would have had if the law of Canada applied.

29.4 Termination for Convenience

29.4.1 Notwithstanding any other provision of the Agreement:

- (a) Company may at its sole discretion and for any reason, including convenience of Company and without any fault or default on the part of the Consultant, terminate the Agreement effective immediately upon giving written notice to the Consultant or at a future date specified in the notice; and
- (b) subject to the Consultant complying with its professional obligations and as required to protect persons and property from damage, the Consultant shall cease the performance of the Services immediately upon receiving that notice or upon any later date specified in that notice.

29.4.2 If for any reason a purported termination under Articles 29.2 or 29.3 by Company is held to be ineffective, the purported termination is not a breach or repudiation of the Agreement and is deemed to have been effected under Article 29.4.1.

29.4.3 If the Agreement is terminated pursuant to Article 29.4.1:

- (a) Company (without prejudice to any other rights or remedies it has) shall pay the Consultant in accordance with Article 12.0, after receipt of a written claim for payment, the Cost of Services due to the Consultant for the Services performed in the relevant period up to the date of termination plus demobilisation costs and other costs the Consultant reasonably incurs (and provides satisfactory evidence for) in terminating the Services; and
- (b) the Consultant is not entitled to make any Claim for any consequential costs, losses, damages or lost profit.

29.5 Termination of Agreement

29.5.1 If Company terminates the Agreement pursuant to Articles 29.2, 29.3 or 29.4, then:

- (a) Company may engage and pay other persons to perform the Services;
- (b) as and when required by Company by notice to the Consultant (and not before), the Consultant shall remove from the Site any property of or in the possession or control of the Consultant within 1 month of receiving such notice. If the Consultant fails to do so, Company may remove or dispose of any such other property as it sees fit. Company may credit to the Consultant's account, (or to Company's account), an amount equal to the proceeds from any sale (less any disposal costs incurred by Company); and
- (c) the Consultant shall deliver to Company within 14 days after the date of termination:
 - (i) all Company Documentation;
 - (ii) all Agreement Material; and
 - (iii) any Documentation recording, containing, setting out or making reference to the Services or the Project,

save that the Consultant may keep 1 copy of such Documentation in accordance with the confidentiality obligations of the Agreement.

29.5.2 If Company terminates the Agreement pursuant to Articles 29.2 or 29.3, Company may, without limiting any other rights it may have to pay Subcontractor(s) or suppliers of the Consultant:

- (a) pay any Subcontractor or supplier for any Goods delivered or work performed for the purpose of the Agreement (whether before or after the date of termination) which has not already been paid for by the Consultant; and
- (b) deduct amounts equal to any such payments from any moneys due to the Consultant from time to time.

29.6 Recovery of Loss

29.6.1 If Company terminates the Agreement pursuant to Articles 29.2 or 29.3, or if the Consultant repudiates the Agreement and Company otherwise terminates the Agreement, then Company will:

- (a) not be obliged to make any further payments to the Consultant; and
- (b) subject to Article 27.0, be entitled to recover from the Consultant any Liability incurred or suffered or suffered by it as a result of, or arising out of, or in any way in connection with, such termination.

29.7 Preservation of Other Rights

29.7.1 If the Consultant:

- (a) is in breach of or is in default under the Agreement; or
- (b) breaches a warranty which it gives Company under the Agreement,

nothing in this Article 29.0 will prejudice the right of Company to recover damages or exercise any other right it may have under the Agreement or at Law.

30.0 CONFLICT OF INTEREST

30.1 General Obligations

30.1.1 The compensation paid to the Consultant by the Company under the Agreement shall constitute the Consultant's sole remuneration in connection with this Agreement and the Services, and the Consultant shall not accept for its own benefit any trade, commission, discount or similar payment from a third party in connection with activities pursuant to this Agreement or to the Services or in the discharge of its obligations hereunder.

30.1.2 The Consultant shall, subject to meeting its professional obligations and complying with applicable Laws and the requirements of Authorities, at all times act in the best interest of the Company. If the Consultant at any time contracts with or represents other electrical utility(s) or company that has business activities similar to those of the Company, or contracts with or represents anyone else who may have an interest in the Project or its completion, or at any time becomes aware of potential conflicts of interest or facts or circumstances

that may cause or lead a reasonable person to believe it may cause the Consultant to act in other than the best interest of the Company, the Consultant shall promptly disclose same to the Company and the steps that the Consultant has taken and is taking to mitigate and resolve such conflict. At the Consultant's own cost, the Consultant shall put into place such adequate safeguards as the Company may, at its discretion, require until the Company is satisfied that the Consultant is able to ensure that the confidentiality of all Confidential Information received or generated by the Consultant in relation to the Agreement or Project is maintained at all times and that none of that information is disclosed to other electrical utility(s) or company that has business activities similar to those of the Company, or such other persons except with the prior written consent of the Company.

- 30.1.3 The Consultant shall immediately notify the Company in writing whenever it encounters a conflict of interest between its duties to the Company under this Agreement and its duties to other electrical utility(s) or company that has business activities similar to those of the Company, or other persons under any such other agreement, describing in each such notice the circumstances which gave rise to the conflict of interest, the nature of the conflict and the steps which the Consultant is taking to resolve such conflict to the satisfaction of the Company. The Consultant shall take all measures and steps which the Company may reasonably require to resolve such conflict to the satisfaction of the Company.
- 30.1.4 The Consultant shall not disclose any Confidential Information which the Consultant receives or generates while undertaking the Services to any third party that may be interested in any part of the Project except with the prior written consent of the Company or where the Consultant is, pursuant to the Agreement or by Company's Representative, directed or authorized to make such disclosure.
- 30.1.5 Without limiting but in addition to the foregoing, the Consultant shall notify Company of any matter which may give rise to an actual or potential conflict of interest during the Agreement between:
- (a) Company and the Consultant;
 - (b) the Consultant and any Subcontractor; or
 - (c) Company and any Subcontractor.
- 30.1.6 The Consultant shall notify Company in writing and obtain Company's written consent before the Consultant or its Personnel provide any advice to, or act for, or are retained by any one or more of the Contractors retained or engaged by Company in relation to the Services, the Work or the Project.

30.1.7 Breach by the Consultant of the provisions of this Article 30.0 shall be deemed to be a material breach of this Agreement and cause the Company irreparable harm and entitle the Company, at the Company's sole discretion, to terminate the Agreement for cause after giving notice to the Consultant of such breach and without providing for a period of time or opportunity for the Consultant to cure such breach.

31.0 PUBLIC COMMUNICATIONS

31.1 Distribution of Communication Materials

31.1.1 The Consultant shall not advertise or issue any information, publication, document or article (including photographs or film) for publication or media releases or other publicity relating to the Services, the Agreement, the Project or Company's business and activities without the prior written approval of Company except as may be required by applicable Law.

31.2 Media Enquiries

31.2.1 The Consultant shall refer to Company any enquiries from the media concerning the Services, the Agreement, the Project or Company's business and activities.

32.0 NOTICES

32.1 Requirements for Notice

32.1.1 Unless otherwise specified in the Agreement, any notice, demand, consent or other communication ("**Notice**") given or made pursuant to the Agreement shall:

- (a) be in writing;
- (b) be marked to the attention of the Representative for the Party to whom the notice is addressed;
- (c) where given by Company, be signed or authorized by either Company's Representative, a director or company secretary of Company, or a duly authorized representative of Company;
- (d) where given by the Consultant, be signed or authorized by either Consultant's Representative, a director or company secretary of the Consultant, or a duly authorized representative of the Consultant; and
- (e) be delivered by prepaid post, by hand or by facsimile to the Party to whom the notice is addressed at its address specified in Article 32.3 or such other address as that Party may have notified to the other Party.

32.2 Notices deemed given

32.2.1 A Notice will be taken to be duly given:

- (a) in the case of delivery by hand, when delivered;
- (b) in the case of delivery by post, 2 Business Days after the date of posting (if posted to an address in the same country) or 10 Business Days after the date of posting (if posted to an address in another country);
- (c) in the case of facsimile, on receipt by the sender of a transmission control report from the despatching machine showing the relevant number of pages and the correct destination fax machine number or name of the recipient and indicating that the transmission has been made without error,

but if the result is that a Notice would be taken to be given or made on a day that is not a Business Day or the Notice is sent or is later than 4:00pm (local time) it will be taken to have been duly given or made at the start of business on the next Business Day.

32.3 Address for Service

32.3.1 Any Notice given or made under the Agreement shall be delivered to the intended recipient by hand or fax to the address or fax number below or the address or fax number last notified by the intended recipient to the sender:

(a) to Company:

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

Attention: Company's Representative
 Fax No.: (709) 737-1985

(b) to the Consultant:

[* _____]
 * _____
 * _____
 * _____

Attention: Consultant's Representative
 Fax No.: * _____

32.4 Electronic Mail

32.4.1 The Parties may use electronic mail for day to day communication but electronic mail shall not be used for and will not constitute Notice under the Agreement where the Agreement expressly requires that a Notice be given, including for Claims, Application for Payments and termination.

32.5 Verbal Communications

32.5.1 Except where expressly provided otherwise in the Agreement, verbal communications will not constitute formal communication or Notice under the Agreement and neither Party has any obligation to act on any verbal communication or instruction unless and until it is confirmed in writing. Any action taken by a Party based on verbal communications, instructions or assurances will be at that Party's sole risk and will be without liability to or recourse against the other Party.

32.6 Change of Address

32.6.1 A Party may, from time to time, give Notice to the other Party of any change to its address.

33.0 CLAIM NOTIFICATION

33.1.1 If under the Agreement the Consultant is required to give written notice or obtain the written consent or approval of Company before becoming entitled to additional Cost of Services, then the satisfaction of any such requirement by the Consultant in accordance with the relevant provision of the Agreement, will be a condition precedent to the Consultant's entitlement to any additional Cost of Services.

34.0 COMPLIANCE WITH COMPANY POLICIES

34.1.1 The Consultant shall, and shall cause its Personnel to, comply with all Company Policies when performing its obligations under the Agreement.

35.0 GENERAL**35.1 Governing Law**

35.1.1 The Agreement is governed by the law in force in Newfoundland and Labrador, and where applicable, Canada.

35.1.2 Subject to Article 28.0, the Parties irrevocably submit to the exclusive jurisdiction of the courts exercising jurisdiction in Newfoundland and Labrador and any court that may hear appeals from any of those courts for any proceeding in connection with the Agreement, subject only to the right to enforce a judgment obtained in any of those courts in any other jurisdiction.

35.2 Nature of Relationship

35.2.1 Nothing in the Agreement constitutes a joint venture, agency, partnership or other fiduciary relationship between Company and the Consultant.

35.2.2 The Consultant acknowledges:

- (a) that it has no authority to bind Company; and
- (b) at all times when performing its obligations under the Agreement, the Consultant is deemed to be an independent contractor and not an employee or agent of Company.

35.2.3 If the Services include administration or assistance in administration of the Contracts, the Consultant shall at all times represent and protect the interest of Company and diligently enforce the Contracts for, on behalf of, and in the best interests of Company, and in accordance with the directions in writing of Company's Representative from time to time. This Article 35.2.3 will survive the Termination Date.

35.2.4 The Consultant shall not waive any provisions, authorize any extras or agree to any changes in Contracts.

35.3 Costs and Outlays

35.3.1 Each Party shall pay its own costs and outlays connected with the preparation, negotiation and execution of the Agreement.

35.4 Time

35.4.1 Time is of the essence of the Agreement. If the Parties agree to vary a time requirement, the time requirement so varied is of the essence of the Agreement.

35.4.2 An agreement to vary a time requirement shall be in writing.

35.5 Severability

35.5.1 If anything in the Agreement is unenforceable, illegal or void then it is severed and the rest of the Agreement remains in force.

35.5.2 Where a provision of the Agreement is prohibited or unenforceable, the Parties shall negotiate in good faith to replace the invalid provision by a provision which is in accordance with the applicable Law and which shall be as close as possible to the Parties' original intent and appropriate consequential amendments (if any) will be made to the Agreement.

35.6 Entire Agreement

35.6.1 The Agreement:

- (a) is the entire agreement and understanding between the Parties on everything connected with the subject matter of the Agreement; and
- (b) supersedes any prior agreement or understanding on anything connected with that subject matter.

35.6.2 If during the term of the Agreement the Consultant provides, refers to, submits or otherwise uses terms and conditions other than those included in the Agreement (including as part of the submission of an Application for Payment), such terms and conditions will not form part of, or be incorporated into, the Agreement. Where any items supplied or delivered under the Agreement are accompanied by the Consultant's documentation, acceptance of the items or documentation by Company or its Personnel is limited to an acknowledgment of receipt or delivery of the items so supplied and not of the Consultant's documentation.

35.7 Further Assistance

35.7.1 Each Party shall promptly at its own cost do all things (including executing and if necessary delivering all documents) necessary or desirable to give full effect to the Agreement and the transactions contemplated by it.

35.8 Waiver

35.8.1 The Parties agree that:

- (a) a Party's failure or delay to exercise a power or right does not operate as a waiver of that power or right;
- (b) the exercise of a power or right does not preclude either its exercise in the future or the exercise of any other power or right;
- (c) a waiver is not effective unless it is in writing; and
- (d) waiver of a power or right is effective only in respect of the specific instance to which it relates and for the specific purpose for which it is given.

35.9 Amendment and variation

35.9.1 The Agreement will not be amended, modified, varied or supplemented except in writing signed by the Parties.

35.10 Survival

36.10.1 The provisions set out in Articles 6.2, 6.3, 12.0, 14.1, 15.0, 16.0, 17.0, 18.0, 22.0, 26.0, 27.0 and 28.0 will not merge on completion, but will continue in full force and effect after any termination or expiration of the Agreement as will any other provision of the Agreement which expressly or by implication from its nature is intended to survive the termination or expiration of the Agreement.

35.11 Joint Ventures and Consortia

35.11.1 If the Consultant is a joint venture or consortium of one or more corporations, partnerships or other legal entities for purposes of, among other things, entering into this Agreement, it is agreed that each joint venture and consortium member of the Consultant shall, in respect of the Company, be jointly and severally liable to the Company to fulfil all of the obligations and liabilities of the Consultant under this Agreement, to the same extent and for the same purposes as if that joint venture or consortium member had alone executed the Agreement in its own right and capacity and not as a joint venture or consortium member of the Consultant. The foregoing shall not limit any rights any joint venture or consortium member of the Consultant may subsequently have to claim contribution and indemnity from other joint venture or consortium members of the Consultant under the terms of any joint venture or consortium agreement which established the Consultant as a joint venture or consortium.

35.11.2 The name of the Consultant shall not be changed without the prior written consent of the Company, not to be unreasonably withheld.

35.11.3 The joint venture and consortium members of the Consultant shall not be changed without the prior written consent of the Company, which consent may be conditional upon such terms as the Company may require.

35.11.4 Notwithstanding the Consultant is a joint venture or consortium, it is expressly agreed that the Company, and any Affiliate, may in future contract directly with any one of the joint venture or consortium members of the Consultant in their own individual capacity and not as part of the joint venture or consortium, including to provide any engineering, technical, project management, professional, consulting and other services which the Company, the Affiliate(s) may require whether for any part of the Project or for anything not expressly included within Exhibit 3.

35.12 Counterparts

35.12.1 To expedite the execution hereof, the Agreement may be executed in any number of counterparts and any Party may transmit by fax or email in PDF format to the other Party or Parties a copy of this Agreement executed by that Party, the receipt of which shall have the same force and effect as if the original thereof had in fact been delivered at the same time.

35.12.2 Any original, fax copy, PDF print copy or photocopy of this Agreement bearing one or more signatures on behalf of a Party shall be admissible against that Party in any legal proceeding as evidence of the execution and delivery of this Agreement by that party and without the requirement to produce an original executed copy of that document. Each counterpart is an original, but the counterparts together are one and the same agreement.

35.13 Execution – Authorized Officer to Sign

35.13.1 Each person signing the Agreement as an authorized officer of a Party hereby represents and warrants that he or she is duly authorized to sign the Agreement for that Party and that the Agreement will, upon having been so executed, be binding on that Party in accordance with its terms.

EXHIBITS:

- Exhibit 1 Supplementary Definitions and Interpretation
- Exhibit 2 Project Description
- Exhibit 3 Scope of Services
- Exhibit 4 Compensation
- Exhibit 5 Coordination Procedures
- Exhibit 6 Company Supplied Data
- Exhibit 7 Project Schedule
- Exhibit 8 Contractor Facilities
- Exhibit 9 Newfoundland and Labrador Benefits
- Exhibit 10 Form of Parent Company Guarantee
- Exhibit 11 Key Personnel

EXECUTED AS AN AGREEMENT:

For and on behalf of [*COMPANY _____]

| | |
|---|---|
| _____ <i>Signature of Authorized Officer</i> | _____ <i>Signature of Authorized Officer</i> |
| _____ <i>Name of Authorized Officer</i> | _____ <i>Name of Authorized Officer</i> |

For and on behalf of [*CONSULTANT _____]

| | |
|---|---|
| _____ <i>Signature of Authorized Officer</i> | _____ <i>Signature of Authorized Officer</i> |
| _____ <i>Name of Authorized Officer</i> | _____ <i>Name of Authorized Officer</i> |

EXHIBIT 1

SUPPLEMENTARY DEFINITIONS AND INTERPRETATION

SUPPLEMENTARY DEFINITIONS AND INTERPRETATION

Unless the context otherwise expressly requires, in the Agreement:

- 1.0 “Agreement Award” means Effective Date of the Agreement;
- 1.1 “Agreement Price” has the meaning given in Exhibit 4;
- 1.2 “Baseline” has the meaning given in Exhibit 5, Section 7;
- 1.3 “Basis of Design” means the overarching Project definition developed by Company;
- 1.4 “Best Value” has the meaning given in Exhibit 5, Section 15;
- 1.5 “Central Document Register” has the meaning given in Exhibit 5, Section 16;
- 1.6 “Change Control Plan” has the meaning in Exhibit 5, Section 9;
- 1.7 “Change Management” has the meaning given in Exhibit 5, Section 8;
- 1.8 “Class 3 Estimate” has the meaning given in Exhibit 5, Section 7;
- 1.9 “Closeout Package” has the meaning given in Exhibit 5, Section 3;
- 1.10 “Code of Accounts (COA)” has the meaning given in Exhibit 5, Section 7;
- 1.11 “Commissioning Check List (CCL)” has the meaning given in Exhibit 5, Section 13;
- 1.12 “Commissioning Procedure (CPR)” has the meaning given in Exhibit 5, Section 13;
- 1.13 “Commissioning Static Checks” has the meaning given in Exhibit 5, Section 13;
- 1.14 “Completions” has the meaning given in Exhibit 5, Section 13;
- 1.15 “Component” has the meaning given in Exhibit 2;
- 1.16 “Construction Management Plan” has the meaning given in Exhibit 5, Section 12;
- 1.17 “Cost Baseline” has the meaning given in Exhibit 5, Section 7;
- 1.18 “Cost Management Plan” has the meaning given in Exhibit 5, Section 7;

Supplementary Definitions and Interpretation

- 1.19 “Critical Items” has the meaning given in Exhibit 5, Section 6;
- 1.20 “CRN “ means Canadian registration number ;
- 1.21 “CSA” Z1000:2006 means Canadian Standards Association (CSA) standard for Occupational Health and Safety Management;
- 1.22 “Data Management” has the meaning given in Exhibit 5, Section 16;
- 1.23 “Design Brief” means a comprehensive document developed by Consultant in concert with Company based on relevant Design Philosophies and the Basis of Design. It is focused on the desired results of Detailed Design;
- 1.24 “Design Philosophy” means a document developed by Company that provides a clear definition of what Company will accept in the Detailed Design. Design Philosophies are meant to be a bridge between the more overarching Basis of Design prepared by Company and the more detailed Design Briefs prepared by Consultant;
- 1.25 “Design Verification Plan” has the meaning given in Exhibit 5, Section 11;
- 1.26 “Design-Construction Management Plan” has the meaning given in Exhibit 5, Section 11;
- 1.27 “Dispatch Dossier” has the meaning given in Exhibit 5, Section 13;
- 1.28 “Document Management/Control” has the meaning given in Exhibit 5, Section 16;
- 1.29 “Dynamic Commissioning / System Commissioning” has the meaning given in Exhibit 5, Section 13;
- 1.30 “Earned Value Management” has the meaning given in Exhibit 5, Section 18;
- 1.31 “Engineering Management Plan” has the meaning given in Exhibit 5, Section 11;
- 1.32 “Engineering Query (EQ)” means a formal record of a request or notification for information, clarification, or assistance on a technical or operational issue. It may also be used to provide or obtain background information for the initiation of a request for a modification;
- 1.33 “Environmental Assessment (EA) means a process of estimating and evaluating the short and long term effects of a project on the quality of it location’s environment. It includes identifying ways to minimize, mitigate or eliminate these effects and/or compensate for their impact;

Supplementary Definitions and Interpretation

- 1.34 “Environmental Policy and Guiding Principles” has the meaning given in Exhibit 5, Section 17;
- 1.35 “Environmental Management Plan (EMP)” has the meaning given in Exhibit 5, Section 17;
- 1.36 “Exceptions to Work-Relatedness” has the meaning given in Exhibit 5, Section 4;
- 1.37 “Execution Plan” has the meaning given in Exhibit 5, Section 1;
- 1.38 “Factory Acceptance Tests” means the inspection and testing performed on equipment and systems at Contractor’s or Supplier’s facility after staging or assembly and before shipping from their facility in accordance with test specifications;
- 1.39 “Fatality” has the meaning given in Exhibit 5, Section 4;
- 1.40 “Final Report” has the meaning given in Exhibit 5, Section 2;
- 1.41 “First Aid Injury” has the meaning given in Exhibit 5, Section 4;
- 1.42 “Fixed Fee” has the meaning given in Exhibit 4;
- 1.43 “Forecast Final Cost” has the meaning given in Exhibit 5, Section 7;
- 1.44 “Gateway Process” has the meaning given in Exhibit 3;
- 1.45 “Hard Interface (HI)” has the meaning given in Exhibit 5, Section 3;
- 1.46 “Impacts and Benefits Agreement (IBA)” has the meaning given in Exhibit 5, Section 15;
- 1.47 “Individual Contracting Plans” have the meaning given in Exhibit 5, Section 6;
- 1.48 “Individual Purchasing Plans” have the meaning given in Exhibit 5, Section 6;
- 1.49 “Information Management (IM)” has the meaning given in Exhibit 5, Section 16;
- 1.50 “Information Security” has the meaning given in Exhibit 5, Section 16;
- 1.51 “Information Systems/Information Technology (IS/IT)” has the meaning given in Exhibit 5, Section 16;

Supplementary Definitions and Interpretation

- 1.52 “Inspection Test Records (ITR)” has the meaning given in Exhibit 5, Section 13;
- 1.53 “Interface Closeout” has the meaning given in Exhibit 5, Section 3;
- 1.54 “Interface Coordinator” has the meaning given in Exhibit 5, Section 3;
- 1.55 “Interface ID Number” has the meaning given in Exhibit 5, Section 3;
- 1.56 “Interface Originator” has the meaning given in Exhibit 5, Section 3;
- 1.57 “Invoicing and Payment Plan” has the meaning given in Exhibit 5, Section 14;
- 1.58 “ISO 9001” means International Organization for Standardization (ISO) standard for Quality management systems - Requirements;
- 1.59 “ISO 18001:2001 means International Organization for Standardization (ISO) standard for Occupational Health and Safety Management Systems;
- 1.60 “LACTI” means a matrix of tasks showing leadership, accountability, consultation, technical support and information;
- 1.61 “LCP Technical Interface Management Procedure” has the meaning given in Exhibit 5, Section 3;
- 1.62 “Livening Up Notice (LUN)” has the meaning given in Exhibit 5, Section 13;
- 1.63 “Logistics Plan” has the meaning given in Exhibit 5, Section 6;
- 1.64 “Loss of Consciousness” has the meaning given in Exhibit 5, Section 4;
- 1.65 “Lost Days” has the meaning given in Exhibit 5, Section 4;
- 1.66 “Lost Time Injury” has the meaning given in Exhibit 5, Section 4;
- 1.67 “Materials Management Plan” has the meaning given in Exhibit 5, Section 6;
- 1.68 “MC Handover” has the meaning given in Exhibit 5, Section 13;
- 1.69 “Mechanical Completion (MC)” has the meaning given in Exhibit 5, Section 13;
- 1.70 “Mechanical Completion Certificate (MCC)” has the meaning given in Exhibit 5, Section 13;

Supplementary Definitions and Interpretation

- 1.71 “Medical Treatment” has the meaning given in Exhibit 5, Section 4;
- 1.72 “Monthly Progress Report” has the meaning given in Exhibit 5, Section 2;
- 1.73 “National Occupation Classification (NOC)” has the meaning given in Exhibit 5, Section 18;
- 1.74 “NDE/NDT” means non destructive examination/non-destructive testing;
- 1.75 “Newfoundland and Labrador Benefits” has the meaning given in Exhibit 5, Section 15;
- 1.76 “Occupational Injury/Illness” has the meaning given in Exhibit 5, Section 4;
- 1.77 “Operations and Maintenance Plan” has the meaning given in Exhibit 5, Section 11;
- 1.78 “Operations” has the meaning given in Exhibit 5, Section 13;
- 1.79 “Originating Interface Coordinator” has the meaning given in Exhibit 5, Section 3;
- 1.80 “Overall Contracting Plan” has the meaning given in Exhibit 5, Section 6;
- 1.81 “Overall Purchasing Plan” has the meaning given in Exhibit 5, Section 6;
- 1.82 “Part System Limits” has the meaning given in Exhibit 5, Section 13;
- 1.83 “Pre-Existing Condition” has the meaning given in Exhibit 5, Section 4;
- 1.84 “Preservation” has the meaning given in Exhibit 5, Section 13;
- 1.85 “Project Change Management Plan” has the meaning given in Exhibit 5, Section 8;
- 1.86 “Project Completion System (PCS)” has the meaning given in Exhibit 5, Section 13;
- 1.87 “Project Completions” has the meaning given in Exhibit 5, Section 13;
- 1.88 “Project Control Schedule” has the meaning given in Exhibit 5, Section 18;
- 1.89 “Project Design and Technical Integrity Engagement Plan” has the meaning given in Exhibit 5, Section 11;

Supplementary Definitions and Interpretation

- 1.90 “Project Environmental Protection Plans (EPP)” has the meaning given in Exhibit 5, Section 17;
- 1.91 “Project Health and Safety Management Plan” has the meaning given in Exhibit 5, Section 4;
- 1.92 “Project Master Schedule” has the meaning given in Exhibit 5, Section 18;
- 1.93 “Punch List A” has the meaning given in Exhibit 5, Section 13;
- 1.94 “Punch List B” has the meaning given in Exhibit 5, Section 13;
- 1.95 “Punch List” has the meaning given in Exhibit 5, Section 13;
- 1.96 “Quality Management System” has the meaning given in Exhibit 5, Section 5;
- 1.97 “Quality Plan” has the meaning given in Exhibit 5, Section 5;
- 1.98 “Quality Plan” means a document specifying the quality practices, resources and sequence of activities relevant to a project;
- 1.99 “Quality” means the degree to which a project fulfills established requirements;
- 1.100 “RACI” means a matrix of tasks showing responsibility, accountability, consultation and information;
- 1.101 “Ready for Operations (RFO)” has the meaning given in Exhibit 5, Section 13;
- 1.102 “Records Management” has the meaning given in Exhibit 5, Section 16;
- 1.103 “Regulatory and Environment Management Plan (EMP)” has the meaning given in Exhibit 5, Section 17;
- 1.104 “Regulatory Compliance Plan (RCP)” has the meaning given in Exhibit 5, Section 17;
- 1.105 “Rehabilitation Plan” has the meaning given in Exhibit 5, Section 17;
- 1.106 “Responding Interface Coordinator” has the meaning given in Exhibit 5, Section 3;
- 1.107 “Restricted Days” has the meaning given in Exhibit 5, Section 4;
- 1.108 “Restricted Work” has the meaning given in Exhibit 5, Section 4;

Supplementary Definitions and Interpretation

- 1.109 “Review Plan for Company Documentation” has the meaning given in Exhibit 5, Section 11;
- 1.110 “RFO Turnover” has the meaning given in Exhibit 5, Section 13;
- 1.111 “Risk Action Close-out Report” has the meaning given in Exhibit 5, Section 10;
- 1.112 “Risk Assessment Plan” has the meaning given in Exhibit 5, Section 10;
- 1.113 “Risk Management System and Criteria” has the meaning given in Exhibit 5, Section 10;
- 1.114 “Schedule Development and Control Plan” has the meaning given in Exhibit 5, Section 18;
- 1.115 “Scheduled Completion Date” has the meaning given in Exhibit 5, Section 18;
- 1.116 “S-Curve” means a curve used to visually track the progress of a project over time and form a historical record;
- 1.117 “Significant Occupational Injury/Illness” has the meaning given in Exhibit 5, Section 4;
- 1.118 “Site Health and Safety Management Plan” has the meaning given in Exhibit 5, Section 4;
- 1.119 “Site Specific EPP” has the meaning given in Exhibit 5, Section 17;
- 1.120 “Soft Interface (SI)” has the meaning given in Exhibit 5, Section 3;
- 1.121 “Specification Compliance Sign-off List (SCL)” has the meaning given in Exhibit 5, Section 13;
- 1.122 “Sub-component” has the meaning given in Exhibit 2;
- 1.123 “Technical Interface Form” has the meaning given in Exhibit 5, Section 3;
- 1.124 “Technical Interface Leader” has the meaning given in Exhibit 5, Section 3;
- 1.125 “Technical Interface Management Plan” has the meaning given in Exhibit 5, Section 3;
- 1.126 “Technical Interface Management System” has the meaning given in Exhibit 5, Section 3;
- 1.127 “Technical Interface Management” has the meaning given in Exhibit 5, Section 3;

Supplementary Definitions and Interpretation

- 1.128 “Technical Interface Manager” has the meaning given in Exhibit 5, Section 3;
- 1.129 “Technical Interface Register” has the meaning given in Exhibit 5, Section 3;
- 1.130 “Turnover and Commissioning Package (TCP)” has the meaning given in Exhibit 5, Section 13;
- 1.131 “Turnover Certificate (TOC)” has the meaning given in Exhibit 5, Section 13;
- 1.132 “Weekly Progress Meeting” has the meaning given in Exhibit 5, Section 2;
- 1.133 “Work Breakdown Structure (WBS)” has the meaning given in Exhibit 5, Section 7;
- 1.134 “Work Protection Code (WPC)” has the meaning given in Exhibit 5, Section 13.

EXHIBIT 2

PROJECT DESCRIPTION

EXHIBIT 2.0

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1.0 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 planned to be developed via two sites on the lower Churchill River, known as the Lower Churchill Project (LCP).

2.0 Description of the LCP

The LCP consists of two undeveloped hydroelectric sites and associated transmission systems: Gull Island Hydroelectric Development, located 225 kilometres downstream from the existing Churchill Falls Generating Station; and Muskrat Falls Hydroelectric Development, located 60 kilometres downstream from the proposed Gull Island Hydroelectric Development. Combined, the developments 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 developments would displace an estimated 16 megatonnes of carbon dioxide emissions annually from comparable production using coal thermal generation.

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

The transmission system(s) can include the following:

- A high voltage direct current (HVdc) system comprised of high voltage overhead lines crossing from Labrador to the island of Newfoundland via sub-sea cables, and associated converter stations.
- High voltage alternating current (HVac) overhead transmission lines interconnecting Gull Island to the existing Churchill Falls Generating Station, and
- High voltage alternating current (HVac) overhead transmission lines connecting the Muskrat Falls Hydroelectric Development to the Gull Island Hydroelectric Development.

There is potential for the Newfoundland transmission system to connect the island of Newfoundland to Nova Scotia or New Brunswick via an HVdc transmission system including transmission lines, sub-sea cables, associated converter stations and related electrode sites. This market alternative, which is presently under consideration by Company, will be between ± 200 kV and ± 450 kV and could either be a point to point system or part of a multi-terminal system linked to Sub-component 4A. Company

reserves the right to add such scope to Consultant Services at any time during the life of this Agreement. Alternatively, Company reserves the right to engage Other Consultant(s) for such scope.

3.0 LCP: Components, Development Options, and Project Framing

3.1 General

Company stresses that the details of the noted Components as well as the LCP development options presented herein are indicative only, and that further Project definition activity is being carried out by Company. At the time of execution of this Agreement, the initial development option for the LCP that will be implemented by Company will be known, and the one or more discrete Components (i.e. the Project) for which Consultant shall provide Services under this Agreement will be defined. Prior to execution of this Agreement, this Exhibit 2 will be revised accordingly.

3.2 Description of Components

For the purpose of this Agreement, the LCP is considered to be comprised of discrete physical Components, as follows:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 2: Gull Island Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and/or dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Physical descriptions of each of the noted Components 1,2,3 and 4 are described in the following sections 3.2.1, 3.2.2, 3.2.3, and 3.2.4. The physical descriptions are included herein to provide perspective as to the scope and magnitude of the elements of the respective Component, and are provided for information only.

Company stresses that the status of engineering is preliminary. Subsequent to the award of the Agreement, Consultant will be required to formally review all documentation and data provided by Company as listed in Part 2, Exhibit 6. Consultant's formal review process is described in Part 2, Exhibit 5, Section 11.

3.2.1 Component 1 – Muskrat Falls Hydroelectric Development

Muskrat Falls is one of two hydroelectric developments being planned for the lower Churchill River. The remotely controlled 824 MW Muskrat Falls Hydroelectric Development will be comprised of the following sub-components and associated ac connector lines to an ac switchyard:

- a) 13 km of access roads, including upgrading and new construction, and temporary bridge spanning the intake approach channel;
- b) A 1,500 person accommodations complex (for construction period);
- c) Reservoir preparation;
- d) A north roller compacted concrete (RCC) overflow dam, 32 m high x 430 m long with upstream and downstream concrete facing, concrete overflow crest designed for 8,000 m³/s flow, and upstream and downstream cofferdams, including:
 - 62,000 m³ of foundation overburden excavation,
 - 213,000 m³ of RCC, and
 - 29,000 m³ of concrete in upstream and downstream faces and overflow crest;
- e) A south RCC dam 29 m high x 330 m long, with upstream and downstream concrete facing and concrete crest , including:
 - 28,000 m³ of foundation overburden excavation,
 - 53,000 m³ of RCC, and
 - 13,000 m³ of concrete in upstream and downstream faces and crest;
- f) River diversion during construction via natural river channel for first three years and via the spillway for subsequent years, designed for 5,930 m³/s flow;
- g) Gated spillway – capacity of 14,420 m³/s, including:
 - Approach and discharge channels,
 - 4 submerged gates,
 - 44,000 m³ of overburden and 273,000 m³ of open cut rock excavation, and
 - 75,000 m³ of concrete;
- h) A close coupled intake and powerhouse, including:
 - 4 intakes with gates and trash racks,
 - 4 concrete lined water passages,
 - 4 turbine/generator units at 206 MW each with associated ancillary electrical/mechanical and protection/control equipment,
 - 4 power transformers, located on the draft tube deck of the powerhouse,
 - 2 overhead cranes,
 - 155,000 m³ of overburden and 1,270,000 m³ of open cut rock excavation,
 - 278,000 m³ of concrete, and
 - 2,500 tonnes of structural/miscellaneous steel and metal cladding;
- i) ac switchyard at Muskrat Falls;

- j) ac switchyard at Gull Island;
- k) Churchill Falls switchyard extension;
- l) Port Facilities at Happy Valley Goose Bay and Cartwright:
 - Investigations are required,
 - Potential upgrades may be necessary as a result of those investigations,
 - Extent of those upgrades will be determined in the future; and
- m) North spur stabilization.

3.2.2 Component 2 – Gull Island Hydroelectric Development

Gull Island is one of two hydroelectric developments being planned for the lower Churchill River. The remotely controlled 2,250 MW Gull Island Hydroelectric Development 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 a temporary bridge spanning the Churchill River for access to the south side of the river during construction;
- b) A 2,500 person accommodations complex (for construction period);
- c) Permanent accommodations – 40 person capacity;
- d) Reservoir preparation;
- 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 m³ of foundation overburden excavation, and 11,200,000 m³ of earth/rockfill,
 - 31,000 m³ of concrete in a slurry diaphragm wall (maximum depth to bedrock +/- 45 m),
 - 44,000 m³ of concrete in upstream face, and
 - 240,000 m³ of roller compacted concrete (RCC) in two interface dams;
- h) River diversion designed for 4,800 m³/s flow, including:
 - 2,350,000 m³ of overburden and 1,040,000 m³ of open cut rock excavation,
 - 26,000 m³ concrete and 4 vertical lift gates at inlet portal,
 - 2 tunnels, 14 m wide x 20.5 m high inverted “U” with 528,000 m³ of tunnel rock excavation, and
 - A flow compensation facility in one tunnel;
- i) Spillway – capacity of 20,800 m³/s, including:
 - Approach and discharge channels, a flip bucket and plunge pool,
 - 8 vertical lift gates,
 - 2,260,000 m³ of overburden and 5,430,000 m³ of open cut rock excavation, and
 - 93,000 m³ of concrete;

- j) An intake structure and penstocks, including:
 - 5 intakes with gates and trash racks,
 - 67,000 m³ of open cut rock excavation,
 - 81,000 m³ of concrete,
 - 5 tunnel penstocks,
 - 74,000 m³ of tunnel rock excavation, and
 - 30,000 m³ of concrete lining and 2,000 tonnes of partial steel lining;
- k) Powerhouse and tailrace, including:
 - 5 turbine / generator units at 450 MW each 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 m³ of overburden and 560,000 m³ of open cut rock excavation,
 - 120,000 m³ of concrete, and
 - 2,600 tonnes of structural/miscellaneous steel and metal cladding;
- l) ac switchyard;
- m) Churchill Falls Switchyard extension; and
- n) Port facilities at Happy Valley Goose Bay and Cartwright:
 - Investigations are required,
 - Potential upgrades may be necessary as a result of those investigations,
 - Extent of those upgrades will be determined in the future.

3.2.3 Component 3 – High Voltage Direct Current Transmission System Specialties

Component 3 consists of the HVdc converter station systems associated with the high voltage direct current (HVdc) transmission system for the LCP. The Component 3 HVdc projects will be comprised of the following:

- a) Gull Island HVdc converter station:
 - HVdc converter station using either line commutator converter (LCC) or voltage source converter (VSC),
 - 230 kV ac converted to dc in the range of ± 250 kV to ± 450 kV, and associated terminal yards,
 - Operational as a rectifier,
 - Pole capacity in the range of 300 MW to 800 MW,
 - Higher rating required for overload conditions, and
 - Shore electrode located on the north shore of the Strait of Belle Isle.

NOTE: The shore electrode will be connected to the converter station at Gull Island with dual overhead conductors supported on a wood pole line. The wood pole line and conductors will form part of Component 4 described herein.

b) Soldiers Pond HVdc converter station:

- HVdc converter station using either line commutator converter (LCC) or voltage source converter (VSC),
- dc in the range of ± 250 kV to ± 450 kV converted to 230 kV ac and associated terminal yards,
- Operational as a rectifier and an inverter for bi-directional power flow,
- Pole capacity in the range of 300 MW to 450 MW,
- Shore electrode located on the east shore of Conception Bay.

NOTE: The shore electrode will be connected to the converter station at Soldiers Pond with dual overhead conductors supported on a wood pole line. The wood pole line and conductors will form part of Component 4 described herein.

c) HVdc Transition Compounds:

Strait of Belle Isle submarine cable terminations transition compounds

- One transition compound 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.

NOTE: For the purposes of this Agreement, the LCP does not include any infrastructure or any services associated with the actual crossing of the Strait of Belle Isle. Component 3 does include the Strait of Belle Isle transition compounds, as described in 3.2.3. c) above.

3.2.4 Component 4 – High Voltage Overhead Transmission Lines

The high voltage overhead transmission lines projects required for the LCP comprise high voltage alternating current (HVac) lines, high voltage direct current (HVdc) lines, and electrode lines described as follows:

3.2.4.1 Sub-component 4A: HVdc Overhead Transmission Lines Gull Island to Soldiers Pond

a) Overhead Transmission Line:

Transmission line from Gull Island converter station to Soldiers Pond converter station (near St. John's, NL) in the range of ± 250 kV dc to ± 450 kV dc:

- bipole line, single conductor per pole,
- galvanized lattice steel guyed suspension and rigid angle towers, and
- 1100 km long.

Connections to HVdc transmission system specialties installations, as described in Component 3 herein, will be required.

b) Electrode Lines:

- (i) Dual overhead conductors supported on a wood pole line from Gull Island converter station to Strait of Belle Isle.
- (ii) Dual overhead conductors supported on a wood pole line from Soldiers Pond converter station to the east shore of Conception Bay.

3.2.4.2 Sub-component 4B: HVac Overhead Transmission Lines Muskrat Falls to Gull Island

230 kV ac transmission line from Muskrat Falls to Gull Island

- 2 – 3 phase lines, double bundle conductor
- double circuit galvanized lattice steel guyed suspension and rigid angle towers
- 60 km long

3.2.4.3 Sub-component 4C: HVac Overhead Transmission Lines Gull Island to Churchill Falls

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

3.3 Development Options

The initial development option for the LCP may be one of the following:

3.3.1 Muskrat Falls Development - Scenario A

Development comprised of:

- Component 1: Muskrat Falls Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

3.3.2 Muskrat Falls Development – Scenario B

Development comprised of:

- Component 1: Muskrat Falls Hydroelectric Development

- Component 4: high voltage alternating current overhead transmission lines comprised of:
 - Sub-component 4B: HVac overhead transmission lines Muskrat Falls to Gull Island
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

3.3.3 Gull Island Development – Scenario A

Development comprised of:

- Component 2: Gull Island Hydroelectric Development
- Component 3: high voltage direct current transmission system specialties
- Component 4: high voltage overhead transmission lines (ac and dc) comprised of:
 - Sub-component 4A: HVdc overhead transmission lines Gull Island to Soldiers Pond
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

3.3.4 Gull Island Development – Scenario B

Development comprised of:

- Component 2: Gull Island Hydroelectric Development
- Component 4: high voltage alternating current overhead transmission lines comprised of:
 - Sub-component 4C: HVac overhead transmission lines Gull Island to Churchill Falls

Figure 1 in this Exhibit 2 pictorially presents the Muskrat Falls Development - Scenario A with associated Components indicated.

Figure 2 in this Exhibit 2 pictorially presents the Muskrat Falls Development - Scenario B with associated Components indicated.

Figure 3 in this Exhibit 2 pictorially presents the Gull Island Development - Scenario A with associated Components indicated.

Figure 4 in this Exhibit 2 pictorially presents the Gull Island Development - Scenario B with associated Components indicated.

3.4 The Project

For the purposes of the Services to be provided by Consultant under this Agreement, the Project refers to the one or more discrete Components of the overall LCP for which Consultant shall provide Services.

The term Project does not refer to the overall LCP.

Attachments

Dwg. No. 1 in this Exhibit 2 presents the physical general arrangement of Component 1 - Muskrat Falls Hydroelectric Development.

Dwg. No. 2 in this Exhibit 2 presents the physical general arrangement of Component 2 – Gull Island Hydroelectric Development.

Dwg. No. 3 in this Exhibit 2 presents the physical arrangement of the transmission facilities including the Component 4 Sub-components.

Lower Churchill Project: Development Option

Muskrat Falls Development – Scenario A

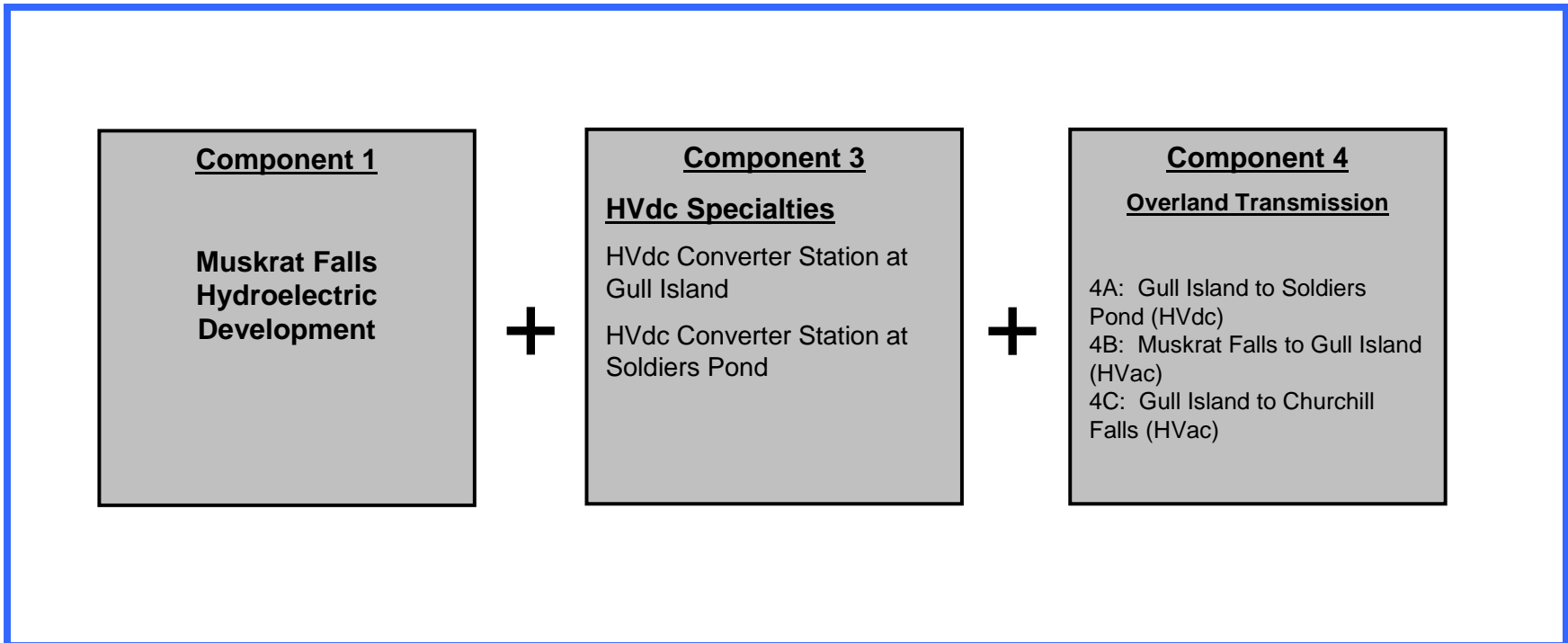


Figure 1: Muskrat Falls Development - Scenario A

Lower Churchill Project: Development Option

Muskrat Falls Development – Scenario B

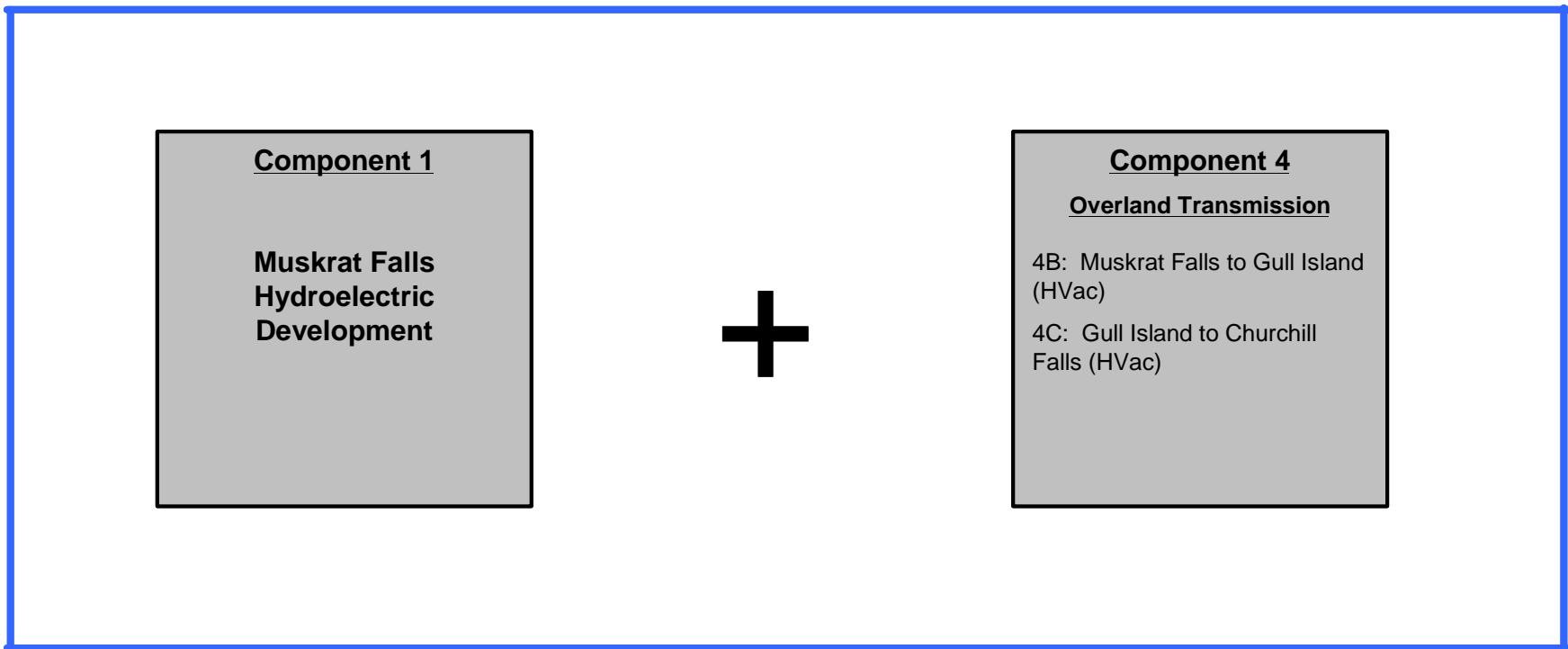


Figure 2: Muskrat Falls Development - Scenario B

Lower Churchill Project: Development Option

Gull Island Development – Scenario A

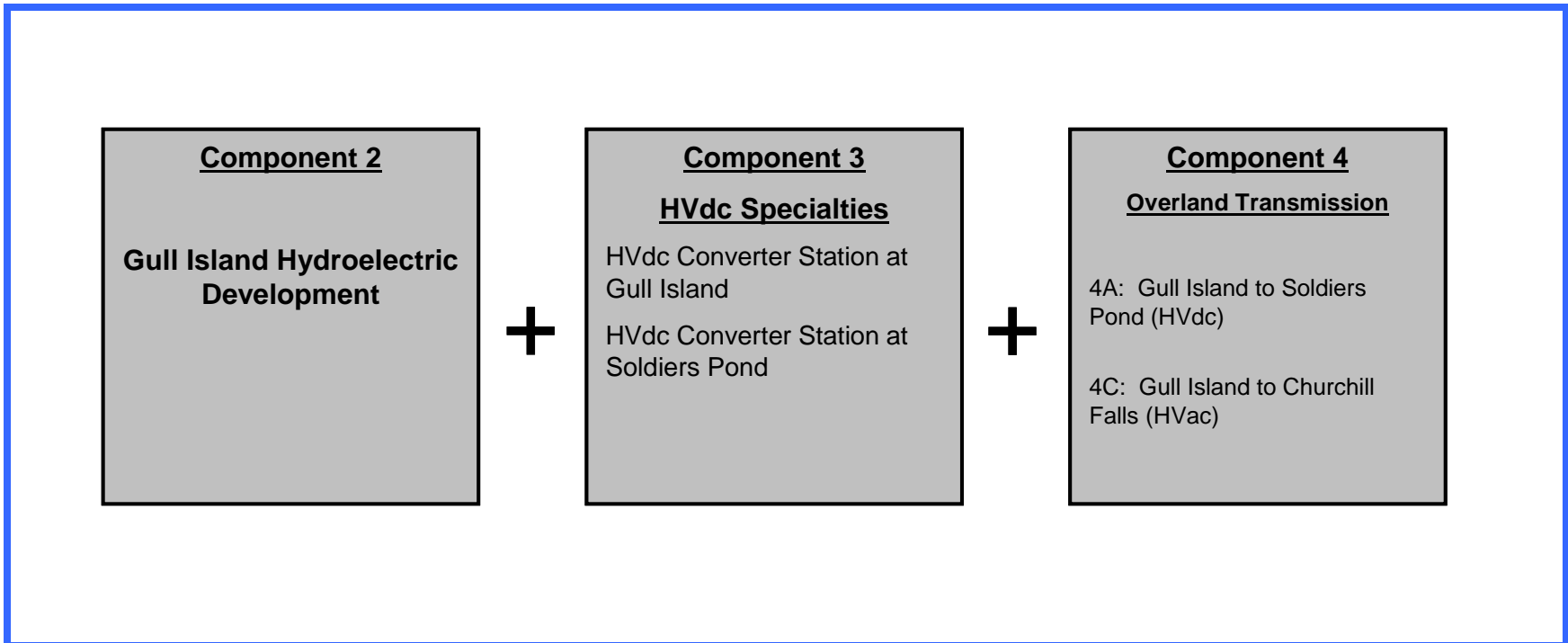


Figure 3: Gull Island Development – Scenario A

Lower Churchill Project: Development Option

Gull Island Development – Scenario B

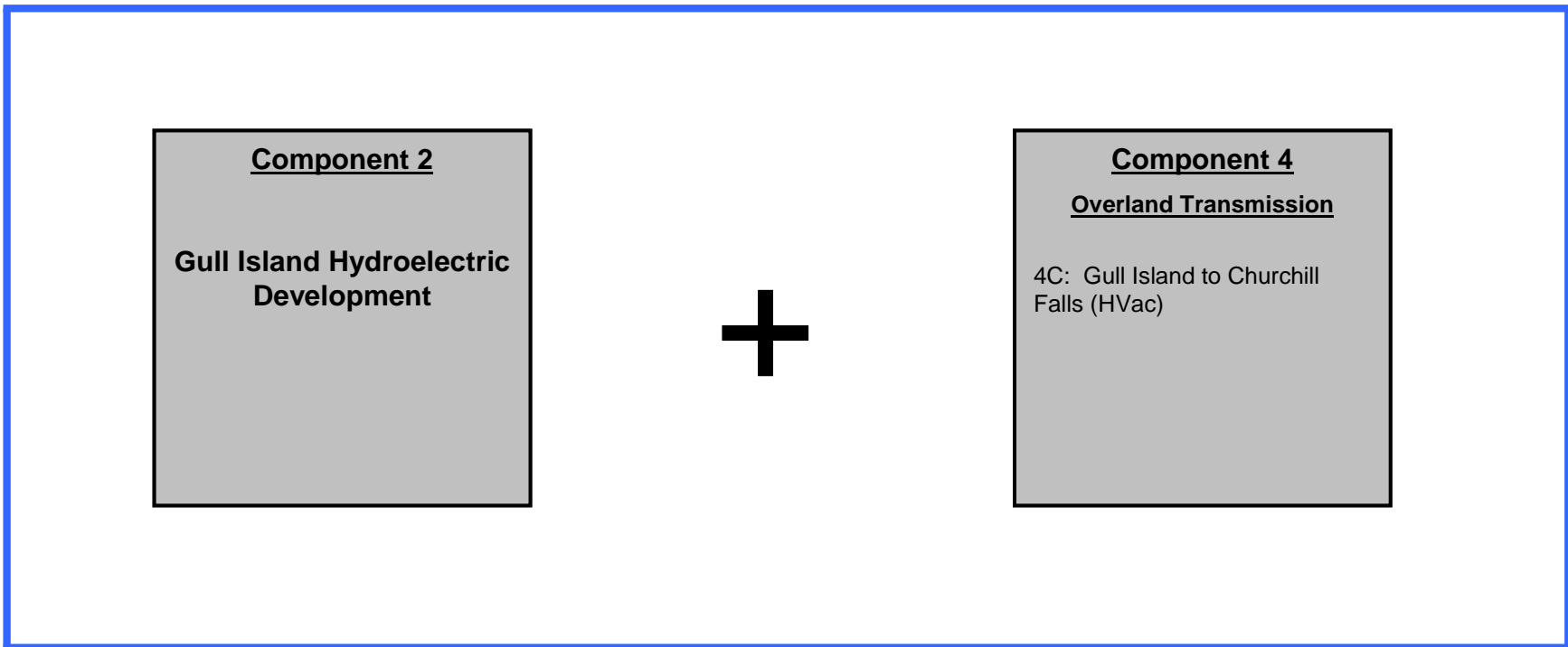
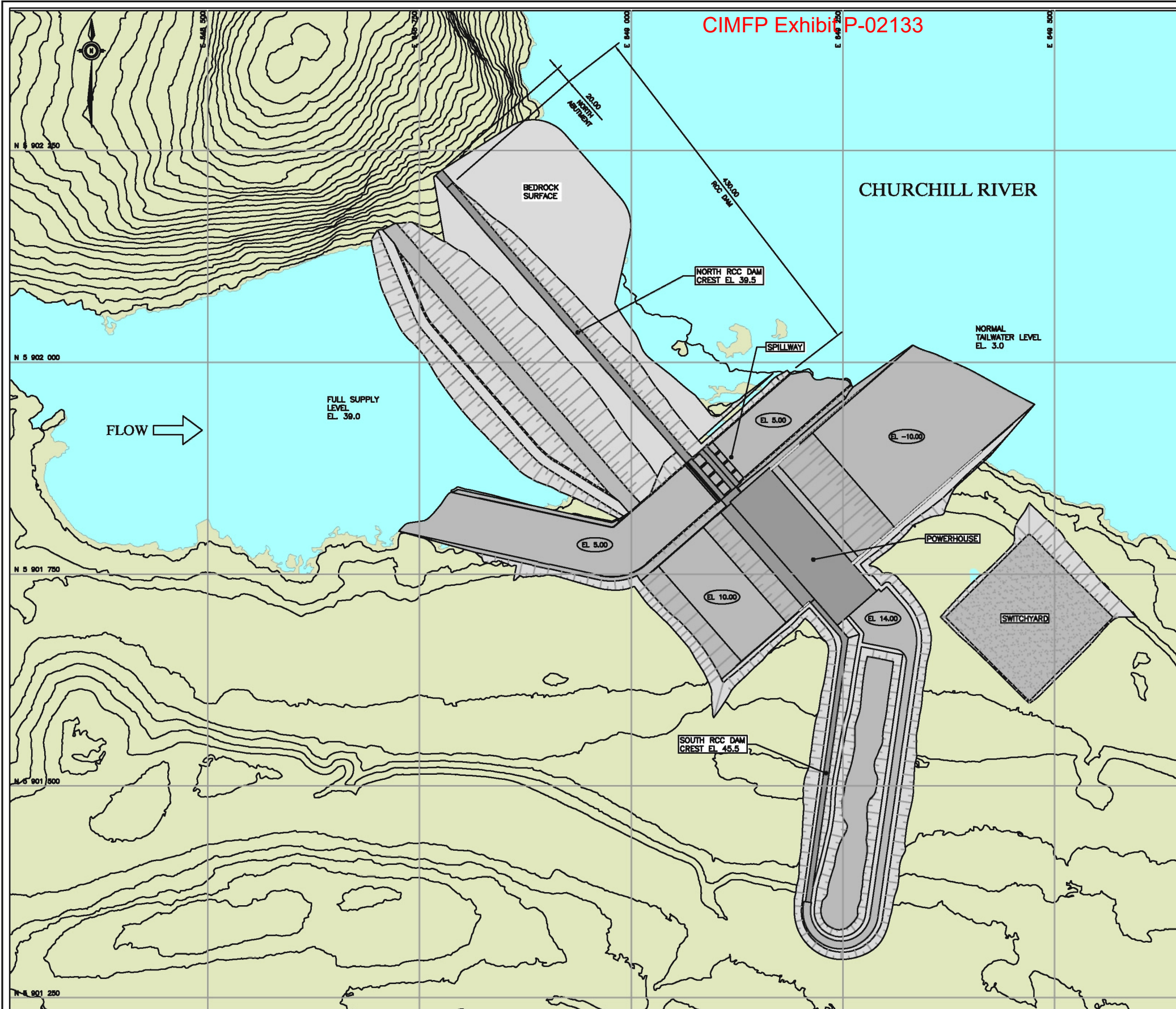


Figure 4: Gull Island Development – Scenario B



NOTE:
1. CONTOUR INTERVALS SHOWN AT 5 METERS.

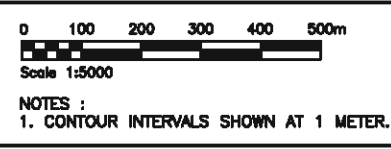
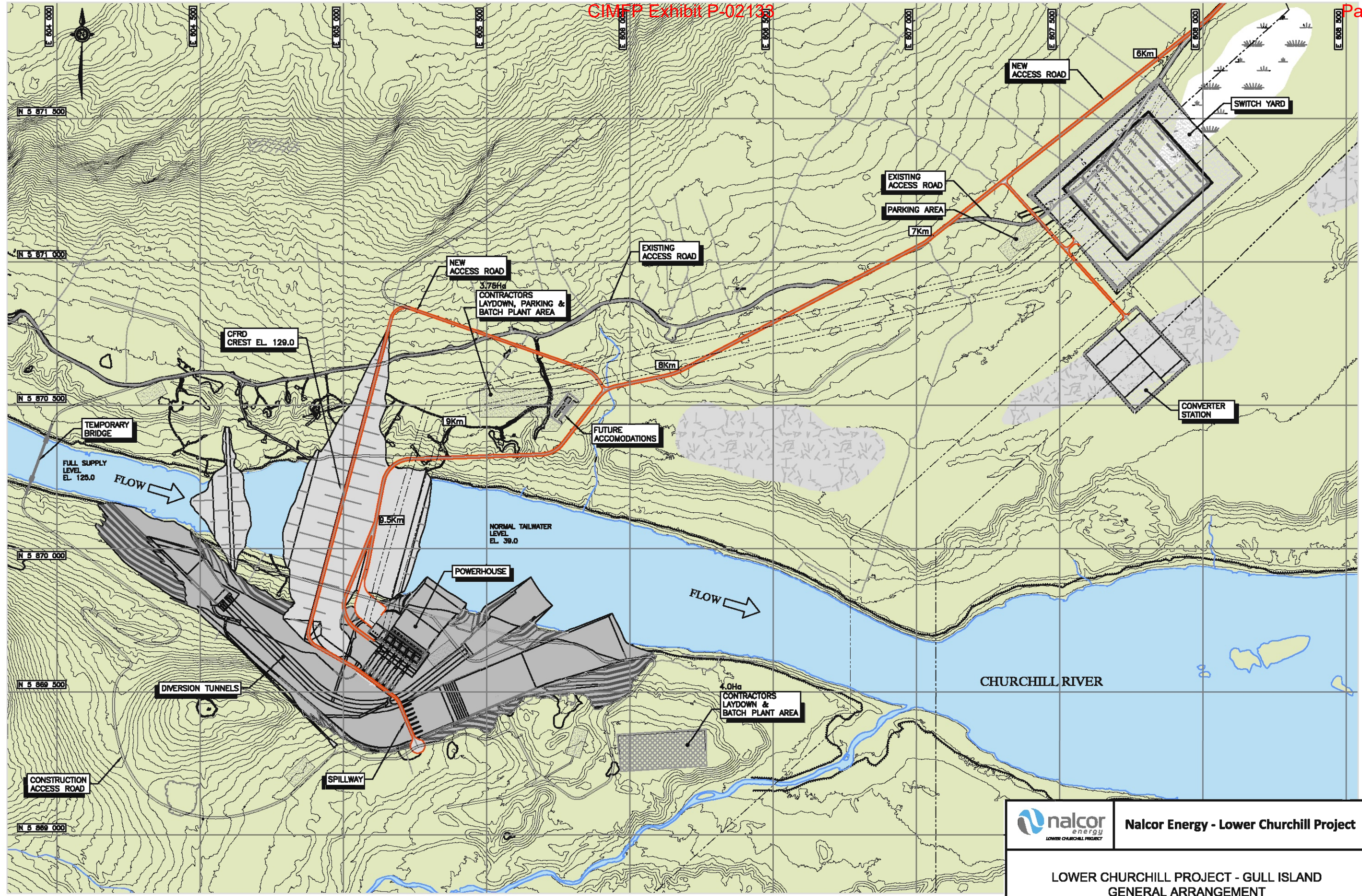


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|---|--|
|  | Nalcor Energy - Lower Churchill Project |
|---|--|

**LOWER CHURCHILL PROJECT - MUSKRAT FALLS
GENERAL ARRANGEMENT**

RFP LC-G-002 Exhibit 2

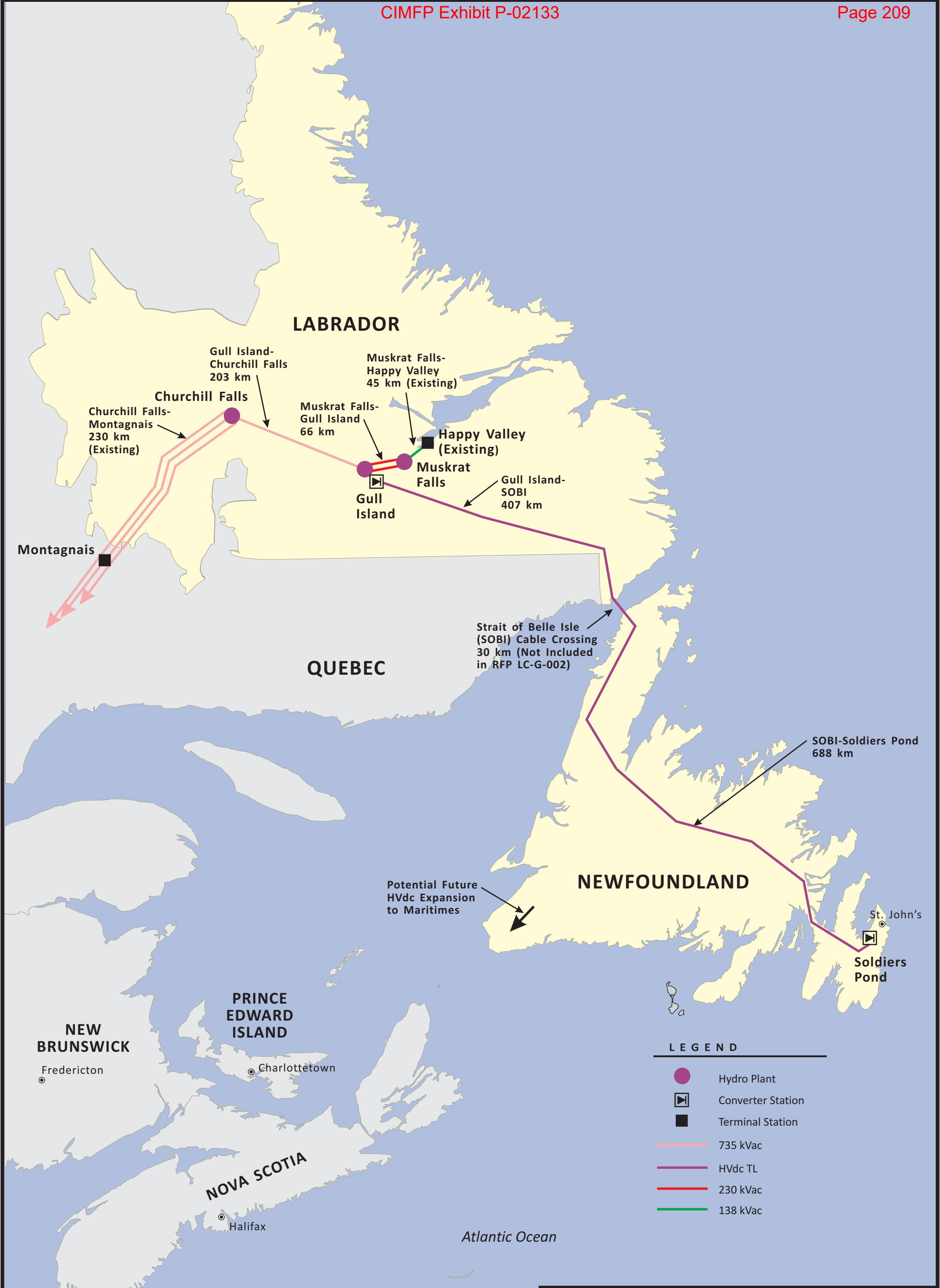
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| DWG. NO. | Drawing No.1 | REV. 0 |
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| | |
|--|--|
| | Nalcor Energy - Lower Churchill Project |
|--|--|

**LOWER CHURCHILL PROJECT - GULL ISLAND
GENERAL ARRANGEMENT**

| | | |
|----------|--|--------|
| DWG. NO. | RFP LC-G-002 Exhibit 2 Drawing No.2 | REV. 0 |
|----------|--|--------|



LEGEND

| | |
|--|-------------------|
| | Hydro Plant |
| | Converter Station |
| | Terminal Station |
| | 735 kVac |
| | HVdc TL |
| | 230 kVac |
| | 138 kVac |



| | |
|--|---|
| | Nalcor Energy - Lower Churchill Project |
| | <p>LOWER CHURCHILL PROJECT GENERATION AND TRANSMISSION MAP</p> |

RFP LC-G-002 Exhibit 2

| | | |
|----------|---------------------|--------|
| DWG. NO. | Drawing No.3 | REV. 0 |
|----------|---------------------|--------|

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3.1 GENERAL

3.1.1 Objectives

The objective of the Agreement is for Consultant to provide, in accordance with the Project Milestone Schedule, all Services including Engineering Services, Procurement Services, Construction Management Services, and other project management services to satisfactorily meet Company's requirements as outlined in the Agreement and as required for the implementation of the Project as defined in Exhibit 2.

Consultant undertakes, in performing the Services, to fully cooperate and actively participate with Company in seeking beneficial ways to achieve Best Value for the Project and for the development option.

3.1.2 Complete Scope of Services and Responsibility

Consultant is responsible for carrying out and providing, in accordance with the Agreement, design development, engineering including all follow-on engineering, procurement including all necessary contracting, construction management including management of specific Project Completions activities including Mechanical Completion, project management services including management of its Engineering Services, Procurement Services, and Construction Management Services as well as other project management services described herein, co-ordination with Company, Other Consultants, Contractors and Suppliers, and any other activities necessary to realize the Agreement objectives set out in Section 3.1.1.

Consultant shall provide all required resources and do everything necessary to perform and complete the Services satisfactorily in accordance with the Agreement.

Consultant shall, for the duration of the Agreement, assign the necessary qualified and experienced Personnel, facilities, equipment, supervision, tools and all materials, supplies, and other resources, and also use acceptable and efficient work processes required to realize the objectives of the Agreement.

The requirements described in Sections 3.2 to 3.10 herein and the Services to be provided under the Agreement are applicable, where relevant, to each discrete Component which comprises the Project as defined in Exhibit 2.

Company reserves the right to extend the Agreement to include any Components of other LCP development options should Company decide to implement one or more such options at a later date.

3.1.3 Conformance of the Services

Consultant shall provide the Services to conform to the Company Supplied Data and all other requirements of the Agreement.

No deviations to the Company Supplied Data are to be made by Consultant without prior written approval from Company.

3.2 ENGINEERING SERVICES

3.2.1 General

Engineering Services includes the provision of complete engineering services including engineering management and supervision of engineering-specific Personnel for the Project. Engineering Services shall be provided throughout all phases of Project implementation extending to start of Operations phase.

Engineering Services includes all Detailed Design and engineering necessary to meet the requirements of the contracts plan for the Project, and includes all Detailed Design Documentation including preparation of Design Briefs, design reports, engineering drawings, documents, technical specifications, functional specifications, and other technical content for inclusion in contract and procurement packages (both pre and post contracts award), system engineering, as well as the provision of analytical and technical support through to Project closeout. Engineering Services also includes all engineering required for the Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations of all Project equipment and infrastructure, and includes all procedures and manuals required for those activities.

All Engineering Services shall be performed by experienced Personnel, and Consultant shall use the necessary tools, supplied by Consultant and endorsed by Company, to perform the Engineering Services in a professional manner and in accordance with accepted engineering practices. Consultant Personnel shall, as part of the provision of Engineering Services, provide all necessary support to the Project's contracting, procurement and construction activities.

3.2.2 Company Supplied Data

Significant engineering work was carried out by Company from 2007 through to 2010. A complete listing of the relevant documentation (as well as a selected listing of earlier study reports from 1997-2000 timeframe), is contained in Exhibit 6. Consultant shall develop the design and engineering for the Project using the information contained or referenced in the documents included in Exhibit 6. It is noted that a broader base of study reports dating back to the 1960's is also 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", document number MSD-PM-010 listed in Exhibit 6. Services provided under the Agreement will build on, and not duplicate, the earlier work. Any deviations from the "Lower Churchill Project – Basis of Design" shall be strictly managed in accordance with the Project Change management requirements as described in Exhibit 5, Section 8 and detailed within the processes of Consultant's Project Change Management Plan.

3.2.3 Asset Management Considerations

Company believes it is vital to consider the long-term asset management during the engineering and design phase of the Project. Company defines Asset Management as *"the comprehensive management of asset requirements, planning, procurement, operations,*

maintenance, and evaluation in terms of life extension or rehabilitation, replacement or retirement to achieve maximum value for the stakeholders based on the required standard of service to current and future generations.”

Consultant shall ensure that Company’s Asset Management principles are clearly embedded within all engineering and design activities for the Project, and ensure that the final design achieves the desired balance between cost and reliability.

3.2.4 Specific Services

Consultant shall, for each Component comprising the Project:

- (i) Identify all engineering deliverables, in total and for each discipline, and compile a complete deliverables listing necessary for the Services, and submit these for Company’s review and acceptance;
- (ii) Identify activities associated with each deliverable and develop an estimate of person-hours to complete each activity;
- (iii) Schedule all activities and deliverables to completion to achieve the milestones contained within the Project Milestone Schedule;
- (iv) Develop and maintain a detailed critical path logic network for all engineering activities;
- (v) Complete all activities and deliverables in accordance with the approved Project Milestone Schedule;
- (vi) In accordance with Exhibit 5, Section 11, develop and implement a Review Plan for Company Documentation;
- (vii) During production of deliverables and on receipt of any further Company Supplied Data (hard and electronic copy), Consultant shall check, re-number (re-reference) and correct all cross-references;
- (viii) Prepare a detailed design procedure for each engineering discipline, and submit for Company’s review and comment. The procedure shall include, as a minimum, design planning, preliminary design, detailed design, design reviews, design changes, design verification, and, if required, design validation;
- (ix) Produce a design suitable for efficient, economic, and safe construction and operation of the Project;
- (x) Prepare all procedures and manuals required for the Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations, operation and maintenance of all Project equipment and infrastructure;
- (xi) Produce as-built drawings and update all design documentation to reflect all changes incorporated during construction and commissioning;
- (xii) Coordinate all Factory Acceptance Testing (FAT) and Site Integration Testing (SIT) and develop FAT/SIT procedures including provision for any Company witnessing and acceptance;

- (xiii) Strictly adhere to Consultant's Project Change Management Plan that has been accepted by Company; and
- (xiv) Develop Preservation specifications and a Preservation program for all equipment, materials, and other Project purchased items that will be supplied from Contractors and Suppliers for implementation through all phases of Mechanical Completion, handover for commissioning, commissioning and turnover to Operations.

3.2.5 Engineering Activities Related to Procurement and Contracts

Consultant shall:

- (i) Perform all engineering and produce all documents (drawings, material requisitions, specifications, reports, procedures, detailed bills of material, etc.) necessary for the efficient procurement of Procured Goods and Contracts;
- (ii) Identify any deviations of Contractors' and Suppliers' design Standards/design from the Agreement requirements and take appropriate action to ensure Contractors' and Suppliers' deliverables comply with the Agreement requirements;
- (iii) Update all related Consultant's deliverables/documents including specifications where applicable, and carry out any updates to deliverables/documents and/or additional specifications as required, to meet Project requirements;
- (iv) Review, accept, and incorporate into Company's Asset Management system, as applicable, Contractor and Supplier engineering data contained in relevant deliverables;
- (v) Control and coordinate all interfaces that impact procurement;
- (vi) Respond to Contractors' and Suppliers' queries in a timely manner;
- (vii) Participate actively in Quality surveillance activities (such as technical audits, inspections and tests) to verify and assure satisfactory Quality performance by Contractors and Suppliers prior to release for shipment;
- (viii) Develop cost estimates for procurement of goods and materials required for the Project; and
- (ix) Ensure Contractors and Suppliers provide drawings, documents, specifications, manuals and procedures, as specified in contracts / purchase orders, which meet Company's requirements.

3.2.6 Engineering Activities Related to Construction

Consultant shall:

- (i) Perform all engineering and produce all documentation necessary for the efficient construction and Completions of the Project;
- (ii) Control and coordinate all interfaces that impact design, fabrication, construction, Mechanical Completion, Preservation, and handover for commissioning;
- (iii) Establish adequately staffed Site teams to perform technical assessment of the Work, and to co-ordinate engineering information between the Site(s) and Consultant's

- central location;
- (iv) Respond to all Site queries in a timely manner. All Site queries shall be managed including logging and tracking by Consultant;
 - (v) Participate actively in Quality surveillance activities (such as technical audits, inspection and tests) to verify and assure satisfactory Quality performance by Contractors;
 - (vi) Develop and implement protocols for consideration and inclusion of constructability requirements throughout engineering;
 - (vii) Maintain a warranty register for all supplied equipment and ensure warranty is triggered when equipment is first commissioned at the Site(s);
 - (viii) Develop and establish a strategy for dealing with warranty and performance claims for acceptance by Company. Consultant shall establish and maintain a warranty and performance claims register and provide copy to Company on a monthly basis. The claims register shall be kept up to date to reflect the status of activity on each claim. Consultant shall provide due diligence in obtaining timely information to enable timely claims analyses to be performed; and
 - (ix) Provide initial survey control for the general layout of the Work.

3.2.7 Engineering Disciplines' Administration and Supervision

Consultant shall:

- (i) Plan, allocate, supervise, control and provide technical support for all engineering disciplines in relation to the Services to the highest Quality level;
- (ii) Prepare and update document/drawing registers;
- (iii) Perform discipline technical reviews of documents/ drawings to ensure adequacy and Quality of discipline design as well as conformance with safety design and Quality requirements;
- (iv) Ensure adherence to Consultant's Project Change Management Plan, as are described in Exhibit 5, Section 8;
- (v) Arrange, coordinate and attend Hazard and Operability (HAZOP) and Hazard Identification (HAZID) review sessions;
- (vi) Perform Safety Integrity Level (SIL) studies, value improving practices (constructability), and design reviews;
- (vii) Arrange engineering discipline meetings, meetings with Company, interface meetings, and any other meetings required for the effective performance of the Engineering Services; and
- (viii) Ensure that each discipline conforms to Agreement requirements, particularly as related to work practices and documentation.

3.2.8 Interdiscipline Checking / Technical Co-ordination

Consultant shall:

- (i) Perform thorough interdiscipline checks of documents/ drawings to ensure design interfaces have been adequately addressed;
- (ii) Ensure thorough interdiscipline technical review meetings are conducted as required;
- (iii) Check and comment on documents/ drawings received from external sources in a timely manner; and
- (iv) Provide technical input to and co-ordination with various disciplines/departments to ensure interdiscipline consistency and compatibility.

3.2.9 Engineering Activities Related to Contractor / Supplier Selection and Performance

Consultant shall:

- (i) Participate in technical review and evaluation of submitted bids;
- (ii) Participate in pre-award meetings;
- (iii) Provide technical input to bid summary and recommendation report as required;
- (iv) Provide updated technical data as required for inclusion in purchase order and contract documents;
- (v) Promptly review and process engineering and other data as provided by Contractors and Suppliers;
- (vi) Promptly respond to clarifications, concession requests, etc. as issued by Contractors and Suppliers;
- (vii) Participate in kickoff meetings, FAT and SIT and associated meetings;
- (viii) Attend witness or hold points to ensure that materials and equipment are supplied to the appropriate Quality; and
- (ix) Participate in prequalification / assessment of Contractors and Suppliers

3.2.10 Engineering Activities Related to Health, Safety, and Environment (HSE)

Safety, health, and safeguarding of the environment are Company core responsibilities. Company promotes a safety-by-design philosophy that places emphasis on the strong consideration of safety within the engineering and design activities. The goals of safety-by-design are to:

- Promote inherent safety in the Project;
- Achieve safer constructability, operability, and maintainability of the Project;
- Assist with achieving a workplace where “Zero Harm - Nobody Gets Hurt”.

Consultant shall embed the concept of safety-by-design philosophy into the completion of the engineering activities. Consultant shall take all necessary measures to ensure health, safety and environment safeguarding are rigorously considered throughout the provision of Services and throughout the implementation of all Work.

In line with Company’s Asset Management expectations and safety-by-design philosophy, Consultant shall be required to assemble and summarize all relevant safety and

environmental engineering studies in a safety and environmental evaluation document. This document shall demonstrate that the Project elements have been designed and constructed to enable safe and environmentally responsible operation of the equipment and infrastructure. This may require, where appropriate, the use of risk assessment techniques such as Quantitative Risk Assessment (QRA). Consultant shall be required to present a summary description of the Project and the attendant safety critical elements and features and how these control the risks. Consultant shall be required to present a summary of any particular operational management or maintenance requirement(s) arising out of the design, which will need to be followed during the operation of the Project.

Consultant shall carry out all engineering activities and studies related to HSE in accordance with the safety-by-design philosophy, environmental mitigation philosophy and environmental rehabilitation philosophy and associated philosophies.

3.2.11 Engineering Activities Related to Materials

Material Selection Related to Consultant's Design

Consultant's material selection will be subject to Company's acceptance.

Material Selection Related to Consultant's Procurement

Consultant shall review Contractors' and Suppliers' materials selection and ensure it is consistent with the Consultant's design. Appropriate Quality assurance and control (material identification, traceability, Quality records, etc.) shall be employed during all phases of equipment manufacturing to ensure all material requirements are met.

Corrosion Protection

Consultant shall comply with the coating specifications and coating systems accepted by Company for all internal and external surfaces. Consultant shall develop, for Company's acceptance, detailed specifications for coating systems and for Preservation of coating systems prior to final turnover to Operations.

3.2.12 System Engineering

Consultant shall execute system engineering as part of the Services. This will include:

- Verification of Project technical interfaces among Consultant, its Subcontractors, Company, Other Consultants, Contractors and Suppliers; and
- 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 among Consultant, its Subcontractors, Company, Other Consultants, Contractors, and Suppliers for the various parts of the Project;

Consultant shall perform system engineering to verify system integrity when changes to the design occur;

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

With respect to consideration of system interfaces with other Components that may fall outside of Consultant's scope of Services, Company (or Other Consultants acting on behalf of Company's behalf) will provide direction to Consultant;

Consultant's Technical Interface Management System shall be used as a tool to help manage system engineering.

3.2.13 Final Documentation

Consultant shall prepare final documentation for the Project in accordance with Company's final documentation requirements and shall include all engineering documentation and data produced by Consultant as well as documentation produced by Contractors and Suppliers. Documentation and data shall be made available prior to the start of operator training.

All documentation and data submissions shall be in accordance with the requirements of Exhibit 5, Section 16. The requirements outlining the management of documentation / data including Company's interfacing, review and receipt requirements shall be facilitated by means of a the Central Document Register which shall be produced by Consultant and agreed with by Company. Company's review requirements shall be outlined in the register.

Consultant shall control all documentation / data in accordance with Company's requirements contained in Exhibit 5, Section 16. Consultant shall copy, file, and retain copies of the final manufacturer documentation / data for inclusion into the final documents to be handed over to Company prior to the Termination Date.

Throughout the provision of Services, Consultant shall provide Company with on-line access to, or electronic copies of, all relevant documentation / data, in addition to providing relevant hard copy documentation / data, all as agreed to by Company and as outlined in Exhibit 5, Section 16.

Operating Procedures/ Manuals

Consultant shall prepare detailed operating manuals for all systems. The associated operating manuals shall be stand-alone documents, separate from all other requirements identified in the final documentation specification including Supplier data dossiers.

The operating manuals shall be specific to the Project and to the equipment actually installed. Generic pamphlets, leaflets and other suppliers' documentation of a similar nature will not be accepted. The operating manuals shall include start-up, normal operation, normal shutdown, and emergency shutdown instructions. The operating instructions shall describe all operating parameters and product specification requirements. Operations covered shall include the following:

- Description of facilities;
- Normal operation, key operating parameters, operating constraints;
- Control system operation;
- Recommended pre-checks prior to commissioning;

- Units commissioning, start-up, operation, and shut-down;
- Emergency shut-down, includes partial and total shutdown; and
- Safety & fire protection system.

Consultant shall include any information and instructions noted in Company's final documentation requirements.

Maintenance Manuals

Consultant shall prepare detailed maintenance manuals for each system.

The maintenance manuals shall consist of all system manufacturing data books/ catalogues, operating and maintenance manuals and any other information and instructions noted in Company's final documentation requirements and master Supplier data requirements list.

Consultant shall expedite, receive, log, and review all information including data books/catalogues, operating and maintenance instructions to verify that all information is complete.

Generic pamphlets, leaflets and other suppliers' documentation of a similar nature will not be accepted.

Maintenance Support

Consultant shall develop, for Company's acceptance, a procedure for providing Company with information that Company requires to integrate all maintenance and spare parts information into Company maintenance management system. Consultant's information shall be in general accordance with Company requirements.

Consultant shall submit the required information within six (6) months after issue of the purchase order for the equipment to which it relates.

Final Documentation

Consultant shall provide final documentation including:

- User guides;
- Design books;
- Design criteria;
- Statistical reports;
- HSE plan;
- HSE and design philosophies;
- Consultant, Contractor and Supplier Quality Plans;
- Safety-related deliverables for the Project;
- Operating specifications and manuals;
- Maintenance manuals;
- Manufacturing data books;
- Procurement-related data;

- Fabrication dossiers;
- System test dossiers;
- Installation dossiers;
- Hydrotest dossiers;
- Mechanical Completion and testing records and dossiers including punch lists;
- Certification dossiers;
- Commissioning dossiers;
- Change control records;
- Contract specifications and procedures;
- As built documents and drawings, including those produced by Consultant, Subcontractors, Suppliers and Contractors;
- Handover of electronic files, including the document/drawing database and engineering database;
- Equipment registration (for material and maintenance system);
- Equipment and instrument dossiers;
- Hydraulic and line list dossiers;
- Instrument data sheet dossier (shall include all Consultant produced data sheets and Supplier supplied data sheets in one volume); and
- Electronic models and files.

3.2.14 Operator Training

Consultant shall assist Company in developing training requirements for operator training. Training requirements shall include recommendations from equipment Suppliers.

Consultant shall facilitate visits to Contractors / Suppliers facilities, especially during FAT and Completions, to gain early knowledge of the equipment and systems. Company Operations Personnel will attend such visits, as arranged by Consultant. Consultant shall provide test procedures to Company Operations Personnel prior to commencing FAT.

3.2.15 Design Liability / Responsibility

Design liability / responsibility for Detailed Design performed by Consultant shall be as per the Agreement.

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

Design liability / responsibility for detailed design performed by others as part of their contractual obligations under Engineering, Procurement, and Construction type contracts will reside with the successful Engineering, Procurement, and Construction Contractor(s) and not with Consultant.

3.2.16 Value Improving Practices

Company is a strong proponent of the use of value improving practices as a means to improve cost, schedule and operability / reliability of the LCP.

Consultant shall provide the Services to ensure that best overall value is achieved for Company. Consultant shall be proactive in identifying and implementing value improving practices with regard to the optimizing the provision of the Services and to generate a Project design that is efficient and cost effective. Alternatively, Company reserves the right to introduce value improving practices to improve business practices specific to the Services. 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.

Consultant shall employ life cycle cost / value analysis techniques during the specification and selection of equipment and designs for the Project. Company document "Lower Churchill Project – Life Cycle Cost Design Philosophy for Equipment, Assets and Structures" document number MSD-PM-010 listed in Exhibit 6 provides guidelines and Company's expectations with respect to use of this technique.

3.2.17 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 Engineers and Geoscientists Act, SNL2008, Chapter E-12.1, An Act Respecting the Practice of Engineering and Geoscience.

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

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

3.2.18 Company's Technical and Design Integrity Oversight

Company will maintain oversight for technical and design integrity for the Project. Further details regarding Consultant's and Company's responsibilities and requirements, including engagement protocols, regarding Company's oversight for technical and design integrity, are described in Exhibit 5, Section 11.

3.3 PROCUREMENT SERVICES

Consultant is responsible, on behalf of Company, for procurement of Procured Goods and for issuing and managing all construction-related and other Contracts required for the implementation of the Project.

Consultant may procure equipment and materials and free-issue to Contractors. However, Contractors may also purchase equipment and materials as agreed with Consultant and Company. Consultant shall recommend appropriate procurement and contracting strategies.

Consultant shall provide all resources to manage all aspects of procurement and contracting for the Work. Consultant shall implement a procurement organization including Key Personnel, all consistent with the requirements of the Agreement.

Consultant shall provide and maintain a materials management system. Consultant shall utilize proven systems and procedures, facilities and sufficient resources to identify, manage, and report on material requirements.

Consultant's scope shall include the tasks to produce deliverables that include those listed below. Exhibit 5, Section 6 outlines, in more detail, the responsibilities of Consultant.

- (i) Development of detailed construction and Completions schedule, consistent with the Project Milestone Schedule, for Company review and acceptance;
- (ii) All necessary purchasing, contracting, inspection, expediting and transportation services to obtain and deliver equipment and material and services required consistent with the Project Milestone Schedule;
- (iii) Overall management, control, monitoring and reporting of procurement and contracting activities;
- (iv) Assessment of Contractors and Suppliers during the pre-qualification process to determine their capability to perform the Work;
- (v) Preparation and issuing of tender packages;
- (vi) Commercial and technical evaluation of tenders;
- (vii) Preparation and issue of purchase orders and contracts in Company's name (Company will pay resulting invoices);
- (viii) Review and approval of Contractors' and Suppliers' progress payment requests and invoices, and submittal to Company for further processing and payment.
- (ix) Input orders and other procurement data in Consultant's materials management system;
- (x) Expediting and developing mitigating actions for delivery delays;
- (xi) Supplier source inspection and FAT;
- (xii) Report and manage non-conforming materials;
- (xiii) Arrangement of material deliveries and receiving inspection;
- (xiv) Stock control, storage and Preservation and security of materials and equipment;
- (xv) Develop and implement a material management strategy for bulk materials (e.g. fuel, cement, etc.) that will assure timely completion of the Work while minimizing surplus;
- (xvi) Provision of documentation for customs clearance for materials and equipment import into Canada;

- (xvii) Develop a sparring philosophy and a list of recommended operating spares and special tools required to effectively start up and maintain the facility; and
- (xviii) Development and implementation of a Preservation program to include Preservation procedures, inspections, and reports to ensure that the equipment and materials are kept in a preserved state ready for use.

3.4 CONSTRUCTION MANAGEMENT SERVICES

3.4.1 General

Consultant shall provide overall management and oversight, including construction planning, management of Site(s), cost and schedule management, Contractor and Supplier management, risk management, management of change, etc., of all activities required for the successful construction and Completions of the Project while meeting Company's objectives of the LCP. Construction Management Services shall include:

- (i) Development and implementation of the detailed construction execution and management plans and support schedules for the Project;
- (ii) Development and implementation of all construction management processes and procedures;
- (iii) Overall management of Project Site(s), including provision of all support services and infrastructure (e.g. accommodations complex, medical facilities, security services, etc.) required by Contractors performing the Work;
- (iv) Overall management and oversight of all Work performed by Contractors at Site(s);
- (v) Administration of all Contracts for the Work;
- (vi) Overall management of Company's labour agreement used by Contractors;
- (vii) Overall management and oversight of all Project-related fabrication activities at all locations;
- (viii) Overall management and oversight of all Project-related transportation and logistics activities at all locations;
- (ix) Overall management and oversight of all Project-related installation activities at Site(s);
- (x) Overall management and oversight of Mechanical Completion, Preservation, and handover for commissioning, and provision of support services for commissioning and turnover to Operations activities at Site(s) required to implement the Project; and
- (xi) Implementation of all best practices, productivity improvement initiatives, risk mitigation, and lessons learned.

3.4.2 Pre-Construction Phase

Construction Management Services to be employed during the pre-construction phase of the Project shall include the following:

- (i) Development and implementation of construction execution and management plans including all strategies, organization, cost estimates, logistics, labor and work scheduling considerations;

- (ii) Development and implementation of Project constructability-related processes, with consideration to the incorporation of industry best practices, productivity issues, risk issues, and lessons learned;
- (iii) Constructability reviews of the design, including reviews for the incorporation of construction safety elements logistics, location, & seasonality constraints, industry best practices, productivity issues, risk issues, and lessons learned;
- (iv) Development of construction contracting strategy and Project contract packages;
- (v) Completion of Contractors' and Suppliers' competency evaluations, including assessment of their Quality systems for capacity and capability to perform to the requirements stated;
- (vi) Development of cost estimates for the construction Work in order to establish the Project Budget;
- (vii) Development of detailed construction and Completions schedule;
- (viii) Development of overall productivity action plan for the Work in order to ensure that the Project is planned and executed with productivity as a key driver of success;
- (ix) Development of a logistics and materials movement plan;
- (x) Development and implementation of program to assess and address potential productivity issues and gaps in critical construction labor and supervision;
- (xi) Completion of modularization / prefabrication analysis for relevant Project components;
- (xii) Completion of a Project-level construction hazards analysis and mitigation plan that considers all physical safety and environmental hazards that may be encountered during construction, and Completions;
- (xiii) Industrial Relations (IR) planning and negotiations planning / labour estimates in conjunction with Company;
- (xiv) Establishment of construction safety targets and safety management programs for incorporation into Contracts;
- (xv) Establishment of construction environmental targets and environmental management programs for incorporation into Contracts;
- (xvi) Development of construction period staffing plan, roles and responsibilities, reporting structure;
- (xvii) Production and management of required construction management related procedures;
- (xviii) Development of strategies for overall construction progress, performance management and cost management;
- (xix) Provision of support to Company in the negotiation of labor collective agreements for the LCP;
- (xx) Provision of support to Company in the placement of Company's insurance program for the Project; and
- (xxi) Provision of input to, support for, and participation in the Newfoundland and Labrador Benefits program.

3.4.3 Construction Phase

3.4.3.1 General

Consultant's Construction Management Services to be employed during the construction phase of the Project shall include the following:

- (i) Guidance and leadership of multifunctional teams to advance the preparation and planning required to commence the main construction Work at the earliest possible opportunity in order to meet or exceed the Project Milestone Schedule and Project Budget;
- (ii) Management of the effort required to provide the engineering, procurement, commercial and environmental deliverables required to be able to place purchase orders, award contracts and commence and execute the main construction Work in accordance with the Project Milestone Schedule;
- (iii) Selection, hiring, training and deployment of Consultant's Site teams that will monitor and direct the Work performed by Contractors;
- (iv) Overall management and coordination of the Site teams, development of Site procedures to administer the Work by the Site Contractors;
- (v) Overall management of the Site(s) including the coordination and management of all common services (e.g. accommodations, medical facilities, etc.) provided by the Consultant, on behalf of the Company, to Contractors;
- (vi) Completion of the construction Work safely, on time and within budget respecting all environmental and other requirements and provisions;
- (vii) Ensure that the construction Work is delivered in accordance to Company's Quality objectives;
- (viii) Ensuring compliance with commitments made in Impact and Benefits Agreement during the planning/preparation phase and during the construction Work;
- (ix) Ensuring compliance with all Newfoundland and Labrador Benefits obligations; and
- (x) Day to day management, with construction Contractors, of labour agreements for Company.

3.4.3.2 Specific Construction Phase Responsibilities

Specific construction phase responsibilities Consultant shall be responsible for shall include the following:

- (i) **General**
 - Pre-mobilization planning;
 - Development and deployment of Site teams – all disciplines and functions;
 - Overall Site coordination / Site offices management;
 - Permits management, including acquisition and oversight;
 - Approval of Contractors' methods / plans / plant / Personnel;
 - Overall management of the Site;
 - Management of Site access;
 - Management of communication systems;
 - Assignment of measuring methods;
 - Reporting & establishment of reporting requirements;
 - Stewardship of management meetings;
 - Rejection of Work / replacement of defective Work;

- Extra Work authorization / management of design changes & impacts on cost & schedule;
- Support of the management of Company's insurance program for the Project; and
- Establishment and provision of off-site warehousing, staging areas, and logistics offices necessary for the Project and for use by Company Personnel.

(ii) **Health and Safety Management**

- Overall Project-level safety management including Site(s) safety oversight & coordination;
- Development and implementation of safety management programs;
- Review and approval of Contractors' safety management plans;
- Review and consolidation of safety statistics reported by Contractors, Subcontractors and Suppliers;
- Establish and maintain medical, emergency response, fire protection facilities and services at each Site(s);
- Emergency response management and coordination at Site(s);
- Coaching of Contractors to achieve the desired safety performance;
- Chair the site-level safety steering committee; and
- Establish and administer Site orientations for all Personnel, including diversity awareness and training.

(iii) **Security Management**

- Development and implementation of Project and Site(s) security plan; and
- Overall management of Site(s) security.

(iv) **Environmental Management**

- Development and implementation of Environmental Management Plan for construction Works for approval by Company;
- Environmental oversight / monitoring, coordination and management of Site(s);
- Management of restrictions on construction operations; and
- Development and implementation of environmental mitigations and rehabilitation plan for use during and post the construction Work.

(v) **Site Technical & Engineering Interface**

- Assessment of excavated foundations / determination of foundation treatment and support requirements;
- Interface with home office engineering / queries / expedite design decisions;
- Timely issuance of approved for construction documents;
- Review / approval of Contractors' drawings;
- Management of changed Site conditions;
- Management of rock support requirements;
- Management of alterations / additions;
- Review / approvals of alternates; and

- Timely / prompt response to Contractor queries, information requests, Change Requests, and decision making.

(vi) Quality Assurance

- Overall responsibility for Construction Quality;
- Ensuring that construction and installation activities are conducted in accordance with drawings, specifications and any special Supplier installation procedures;
- Ensuring that all applicable Standards, codes and jurisdictional regulations are observed and adhered to by Contractors;
- Providing oversight of Contractors' Quality assurance plans, including verification (through checking, surveillance and audits) that the procedures used and the results obtained are in compliance with Project's Quality requirements;
- Quality control, including quality control at Site(s) and fabrication plants;
- Providing attendance at factory acceptance testing (FAT) and system integration testing (SIT);
- Establishment of survey control system and necessary survey control points;
- Participation at inspection and tests;
- Approval of planned concrete Work prior to placement of concrete;
- Approval of completed Work, including all foundations, prior to covering up; and
- Operation of Site laboratories (soils / concrete / photography etc..).

(vii) Verification Activities

- Verification of Contractors' systems for:
 - management of Requests for Information (RFI) / queries from Contractors and Suppliers;
 - maintenance of change logs;
 - most current design information being constructed; and
 - design Standards and codes being used and any requests for deviations from applicable codes, Standards or specifications.

(viii) Logistics and Materials Management

- Overall logistics management for the Site(s);
- Oversee the provision of common logistics and materials management services at Site(s);
- Management of Company supplied items, if applicable;
- Management of storage / laydown areas and staging areas, at the Site and off-site;
- Site material management as required (commodities / receiving / OS&D / surplus / scrap / spares / etc.);
- Management of temporary facilities; and
- Preservation of materials and equipment and storage, shipping and handling in accordance with associated Company approved methods and procedures.

(ix) Contracts Management

- Contract coordination and management in accordance to Contract conditions and Consultant's processes;
- Oversight of Contractors' procurement activities;
- Warranty and claims management;
- Conducting periodic audits of Contractors' files;
- Settlement / resolution of disputes / claims in conjunction with Company; and
- Management of Contractor change requests.

(x) Schedule Management

- Management of overall Project Milestone Schedule and of discrete construction schedules;
- Approval of Contractors' schedules ensuring alignment among Contractors and with overall Project Milestone Schedule;
- Development and implementation of processes and procedures to monitor schedule(s) and to address issues;
- Development and implementation of reporting protocols for Company's acceptance;
- Development and implementation of progress verification methods and procedures to include all payment methods, progress measurements, quantity survey and verification, progress payments, payment measurement methods, and verification methods;
- Regular reporting of progress and performance against the Project Milestone Schedule and Services Budget and Project Budget; and
- Development of recovery schedules in case of actual or forecast schedule slippage of critical path activities.

(xi) Cost Management

- Measurement and reporting of project costs including committed, incurred and earned cost against the Services Budget and Project Budget;
- Identifying and management of all cost and schedule trends;
- Monthly forecasting of estimate-at-completion for the Project and the Services; and
- Management of Project contingency in conjunction with Company;

(xii) Productivity Management

- Leading effort to maximize productivity on the Site(s) and to engrain a productivity mentality into the Site(s) culture; and
- Measurement of actual productivity, and development of productivity improvement initiatives.

(xiii) Risk Management

- Development and implementation of risk identification and management program including roll-out and full engagement / usage of all Contractors in accordance with Consultant's Risk Management Plan;

- Development and implementation of risk challenge process to preclude usage of contingency funds as a first line of defense to address risk issues;
- Development and implementation of process for identification of emerging risk issues; and
- Stewardship of Contactors' risk monitoring and management processes and plans.

(xiv) Document Management

- Overall document management function at the Site(s) including document control, document transmittal capability and document status reporting;
- Implementation of a disaster recovery plan for all documentation and data;
- Regular audit of Contractors' systems / documents; and
- Management / stewardship of as-built documentation.

(xv) Labour Management

- Development and implementation of processes and procedures to manage, report on, and analyze labour usage and productivity;
- Implementation of remedial actions to address issues regarding critical skills gaps;
- Oversight of Project labour agreements, in particular being used by construction contractors;
- Administration of dispute resolution mechanisms as outlined in Project labour agreements; and
- Implementation of policies and procedures related to Personnel on site.

(xvi) Newfoundland and Labrador Benefits

- Specification of requirements for Newfoundland and Labrador Benefits reporting in Contracts;
- Oversight of Newfoundland and Labrador Benefits reporting for Contractors within Company processes and systems; and
- Monitoring of Newfoundland and Labrador Benefits, in conjunction with Company, and manage all corrective actions.

3.4.3.3 Site Teams

At each Site, Consultant shall have a management team fully capable of providing Construction Management Services in support of the Work in order to achieve satisfactory completion in accordance with the Project Milestone Schedule.

3.4.4 Activities Related to Mechanical Completion, Preservation, Handover for Commissioning, Commissioning and Turnover to Operations

Consultant shall be responsible for developing a Project Completions philosophy for Company acceptance. The purpose of this philosophy is to provide a concise set of guidelines for the execution of Mechanical Completion, Preservation, handover for commissioning,

commissioning and turnover to Operations activities, and to establish and maintain a Completions system for all phases of the Project.

The overall goal of Project Completions is to verify and document that all equipment/systems/infrastructure are fabricated and installed as specified, and tested to ensure they function as designed. Safety will govern all decisions.

Contractors and Suppliers, under the management of Consultant, are responsible for performing installation and Mechanical Completion, Preservation, and handover for commissioning activities. Contractors and Suppliers are responsible for development of documentation related to Mechanical Completion including procedures, manuals and other documents required for the Mechanical Completion activities. Consultant shall provide the overall direction to Contractors and Suppliers for these deliverables and shall coordinate the production of the required manuals and procedures in a standard and uniform format to be developed by Consultant and applied to all Contractors and Suppliers.

Consultant, in conjunction with Company, shall define a Completions organization. The organization will include discipline technicians to monitor Completions and to support all Project Completions activities and tests as required. The Completions organization shall include key Company and Consultant Personnel. Consultant shall be responsible for developing an Execution Plan that shall detail how all required activities shall be accomplished to achieve Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations.

Completions documents are to detail and define as a minimum:

- Completions organization, detailing key positions and roles and responsibilities within the organization during all phases of Project Completions;
- Commissioning packages and boundary drawings for systems / equipment;
- Outline of Mechanical Completion packages;
- Content of Mechanical Completion packages by tag / item number and allocated Inspection Test Record;
- Mechanical Completion (MC) forms including Inspection Test Records forms, Punch List forms, and MC handover forms.
- Mechanical Completion Inspection Test Records;
- The Project Completions System (PCS) computerized system or other;
- Quality assurance and Quality control activities;
- Development of Project specific Completions procedures for items such as:
 - Punch List of work;
 - Preservation;
 - Permit to work;
 - Material handling;
 - Lock out tag out for equipment;
 - Handover documentation (i.e. from Mechanical Completion to commissioning,

- Level of Mechanical Completion for Contractors and Suppliers;
- Commissioning static and dynamic documentation such as commissioning check lists, run logs, and other documentation; and
- Commissioning procedures.

Consultant shall select, for Company acceptance, and utilize a computer-based Completions system that tracks and documents system / equipment Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations. This system will also form the basis for the stages of Company's acceptance of the equipment and infrastructure. Consultant shall populate this system with all the required data. Consultant shall also provide trained Personnel to operate the PCS system.

Consultant shall furnish Company with Completions test dossiers that include all mandatory test and inspection certificates, and the reports that Consultant and Contractors have completed to demonstrate Completions. Consultant shall also furnish a complete set of "As-Built" documentation together with commissioning and operating / maintenance manuals.

Additional information regarding Consultant's and Company's responsibilities and requirements, as well as definitions regarding Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations, are contained in Exhibit 5, Section 13.

3.5 SPECIFIC SERVICES REQUIRED IN SUPPORT OF COMPANY'S GATEWAY PROCESS

3.5.1 General

Company is developing the LCP using its staged-gate delivery method referred to as the Gateway Process. The Gateway Process, (refer to Figure 1 - Lower Churchill Project Gateway Process), acts as a decision assurance process that has been and continues to be used to guide Company's strategic planning and execution activities for the LCP. The Gateway Process serves to ensure Quality decision-assurance at crucial points in a project's lifecycle.

As part of the Services, Consultant shall produce pre-defined "readiness" deliverables, referred to as Key Deliverables, as listed below, which are required by Company under the Gateway Process. Consultant shall, building upon Company's existing work, produce these Key Deliverables for Company's review and acceptance prior to the decision gate for which they are required.

Gateway Process

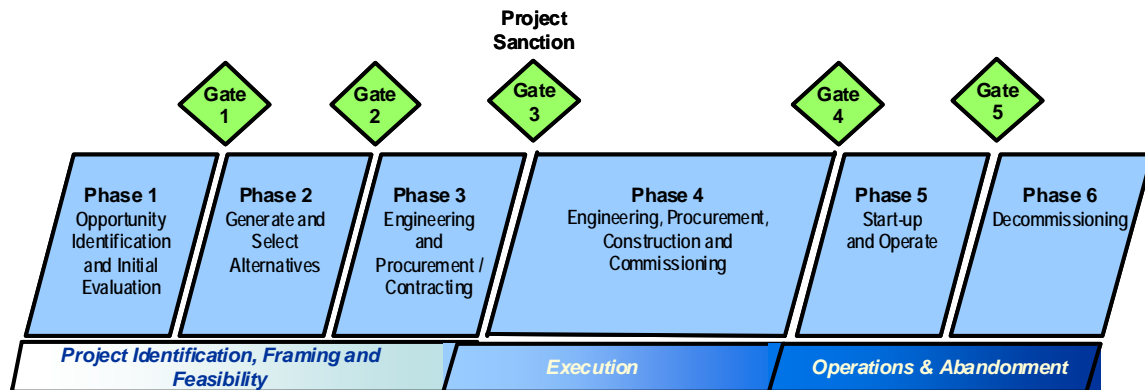


Figure 1 – Lower Churchill Project Gateway Process

Consistent with the Key Deliverables of Gate 3 of the Project Milestone Schedule, Consultant shall complete the level of Project definition (i.e. engineering design, procurement and construction planning) in order for Consultant, in conjunction with Company, to produce a Class 3 Estimate (as defined under the Association for Advancement of Cost Engineering (AACEI) International cost estimate classification system) and equivalent detailed schedule for the Project required for the Gate 3 decision gate process. Similarly Consultant shall complete the level of Project engineering, procurement and contracting in order for Consultant, in conjunction with Company, to produce a Class 2 Estimate (as defined under AACEI) and commensurate detailed schedule by Checkpoint 1 as defined in the Project Milestone Schedule.

3.5.2 Key Deliverables Produced by Consultant

3.5.2.1 Gate 3 Deliverables

Company specified Key Deliverables for Gate 3 shall include the following:

- Cost and schedule estimates with an accuracy of AACEI Class 3 Estimate equivalent;
- Organization design and practices for Phase 4 in-place with all key staff mobilized and plan for mobilization of remaining team in-place;
- Updated Basis of Design for Project completed (in conjunction with Company);
- All design technology and processes selected and accepted by Company;
- Project-specific design criteria documented for all disciplines and Issued for Use;
- Project-specific equipment specifications issued for design;
- Project-specific bulk materials specifications approved by Consultant and accepted by Company;
- Project Site / plot plans - layout plan frozen;

- All geotechnical surveys and data acquisition and analyses complete;
- Phase 3 engineering and Detailed Design deliverables complete as required to meet Consultant's contracting plan;
- Approved for Design (AFD) and Approved for Construction (AFC) Process Hazard Analysis (PHA) and Hazard Operability Reviews (HAZOPS) Completed, commensurate with the maturity of engineering;
- Constructability Review, commensurate with maturity of engineering, Completed for Project supported by level 4 construction schedule and documented construction philosophy;
- Project Control Schedule in place with primary critical path(s) identified;
- Project Execution Plan for Phase 4;
- Contract plan in-place for implementation of the Project;
- All equipment packages defined;
- Procurement underway for all long-lead items in accordance to procurement plan;
- Construction Management Plan - temporary facilities and services Identified;
- Project management processes and supporting tools in place;
- Logistics and freight forwarding plan in place, ready for use / being used;
- Project Information Management and technology plan implementation complete;
- Project Quality Plan in-place;
- Environmental compliance monitoring plan in place / being used;
- HSE plan in place / being used;
- Change Control Plan - implementation complete;
- All key Interfaces identified and Technical Interface Management Plan in-place / being used;
- Labour recruitment plan in-place (in conjunction with Company);
- All consents, permits and licenses required established with early consents, permits and licenses received with no schedule showstoppers identified;
- Environmental effects management program in-place and ready to be deployed;
- Lessons learned / value improvement practices review and implementation complete for Phase 3;
- Operability review complete on the overall Project design and configuration, commensurate with the maturity of engineering;
- Sparing philosophy and strategy in-place;
- Life cycle value analysis design reviews complete, commensurate with the maturity of engineering;
- Commissioning and start-up philosophy in-place;
- Company's Operations' Personnel involvement in Phases 4 defined and agreed with

Consultant;

- Operability Standards for equipment selection defined, commensurate with the maturity of engineering;
- Documentation for Operations strategy in-place with turnover protocols defined; and
- Office, equipment, IS/IT and infrastructure plan for Phase 4 in place.

3.5.2.2 Checkpoint 1 Deliverables

Company specified key deliverables for Checkpoint 1 shall include the following:

- Cost and schedule estimates with an accuracy of AACEI Class 2 Estimate equivalent;
- Contracts for Work in place; and
- Project Completions plan in-place.

3.6 CONSULTANT'S PROJECT MANAGEMENT SERVICES

3.6.1 General

Consultant's project management services include management of its Engineering Services, Procurement Services, Construction Management Services, management of the construction Work, as well as other project management services described herein.

Consultant shall have an efficient management organization, fully supported by effective systems and procedures, to ensure that all project management services are performed to meet fully the safety, environmental, Quality, price, schedule, and other requirements of the Agreement.

Consultant shall provide:

- Sufficient numbers of suitably qualified and skilled Personnel with relevant experience;
- Suitable facilities;
- All necessary systems, procedures, tools and methods; and
- All other resources required for the proper performance and completion of the Services.

Consultant's project management services include:

- Overall management of the Services and the Work;
- Development and implementation of an Execution Plan for provision of the Services and implementation of the Project;
- Technical interface management;
- Quality management;
- Safety and security management;
- Environmental management;
- Cost management;

- Schedule management;
- Risk management;
- Project Change Management;
- Engineering management;
- Procurement, contracting and materials management;
- Construction and Mechanical Completion management;
- Engineering and drafting control;
- Information Management;
- Invoice and payment management for the Services; and
- Newfoundland and Labrador Benefits Monitoring.

Consultant is responsible for the proper management and delivery of the Services, wherever performed, and it shall have appropriate representation at Site(s) to ensure the safe and timely performance of all elements of the Services in accordance with the Quality Standards and other requirements set out in the Agreement. Consultant shall keep Company fully informed at all times of progress and areas of concern.

Further details regarding Consultant's responsibilities and requirements related to the Consultant's project management services are described in Exhibit 5.

Company shall assist and advise Consultant, as Company, in its sole judgement, considers appropriate in relation to Consultant's performance of the Services without this relieving Consultant in any way of its responsibilities, duties and obligations under the Agreement.

3.6.2 Execution Plan for Provision of the Services and Implementation of the Project

In accordance with the requirements described in Exhibit 5, Section 1, subsequent to the execution of the Agreement, Consultant shall prepare a final Execution Plan for the provision of the Services and implementation of the Project for review and approval by Company. Consultant's Execution Plan shall be predicated upon the composition of the Project, scope of the Services and the Project Milestone Schedule.

Consultant's Project Execution Plan shall describe in detail Consultant's strategies and plans for provision of the Services and delivery of the Project. All subsequent changes to the Project Execution Plan shall be submitted for review and acceptance by Company.

Further details regarding general execution planning are described in Exhibit 5, Section 1.

3.6.3 Technical Interface Management for the Project

Consultant shall develop, implement, operate and manage a dedicated Technical Interface Management System and associated processes for the Project. The system will serve as a management tool to facilitate the management of all Project related technical interfaces throughout Project execution. The system will encompass all Hard and Soft Interfaces

identified through Project development. The system will also address technical interfaces with other components that may fall outside of Consultant's scope of Services.

As part of the Services related to technical interface management, Consultant shall manage and coordinate all interfaces internally, and with Company, Contractors, Sub-contractors, Other Consultants, and Suppliers. Consultant shall develop a Technical Interface Management Plan to actively manage the interface system, and shall carry out all required interface activities to ensure successful implementation of the system and timely closeout of all interfaces.

Consultant shall appoint a Technical Interface Manager who shall be responsible for the Technical Interface Management System and its overall management, and who shall be the focal point for interface co-ordination, response, and closeout, and reporting for the Project.

Further details regarding Consultant's responsibilities and requirements related to technical interface management are described in Exhibit 5, Section 3.

3.6.4 Quality Management

Company LCP documents "LCP Quality Policy", document no. MSD-QM-001 and "LCP – Overarching Quality Plan", document no. MSD-QM-020 listed in Exhibit 6 lay out Company's overarching philosophies, goals, objectives and expectations in the area of Quality assurance and Quality control, and act as a framework for all LCP Quality activities. These documents act as a guide with respect to Project Quality for Company, as well for Consultant, Other Consultants, Subcontractors, Contractors and Suppliers providing services or work for LCP.

Consultant shall carry out its Quality management to ensure that the Services, and ultimately the Work, are executed to meet all the requirements of the LCP Quality Policy and LCP – Overarching Quality Plan and the Agreement, with the objective of eliminating defects, non-conformances and the need for remedial work.

Consultant shall ensure, through the proper operation of a Quality system conforming to the principles of an internationally recognized Standard such as the ISO 9000 series of Standards, systematic and satisfactory:

- Project management of the Services;
- Planning of every aspect of the Services;
- Execution of every element of the Services;
- Verification of all Services as they are performed to confirm that they meet all the requirements of the Agreement; and
- Auditing, surveillance and inspection to ensure the Quality objectives are fulfilled.

Consultant's Quality management of the Services includes all Quality-related functions at Site(s), including Quality assurance and Quality control.

Further details regarding Consultant's responsibilities and requirements related to Quality management for the Services are described in Exhibit 5, Section 5.

3.6.5 Health and Safety Management

Company is committed to providing a safe and healthy workplace for its employees, Consultant, Subcontractor, Other Consultants, Contractors, Suppliers and the general public. Company's goal is a workplace where "Zero Harm - Nobody Gets Hurt" – and an environment where each and every employee is always concerned for their own safety and the safety of others. Consultant shall pay the highest regard to health and safety, and shall meet or exceed Company's requirements.

Consultant shall be responsible for completion of the Services and the Project without accident or incident, and is solely responsible for:

- Providing a healthy and safe working environment at Site(s);
- Safe performance of the Work by all Personnel; and
- Actively promoting the importance of health and safety at Site(s).

Consultant shall ensure safety through the proper operation of a safety management system including safety risk assessment procedures conforming to the principles of internationally recognized safety Standards applicable to all phases of the Work.

Consultant's safety management shall include all safety-related functions at Site(s) to protect the well being of all Personnel, and to prevent loss of or damage to property.

Consultant shall place a strong emphasis on coaching Subcontractors, Contractors, and Suppliers to achieve a workplace where nobody gets hurt.

Consultant's safety management services for the Project shall include the evaluation, selection, and management of Subcontractors, Contractors and Suppliers who are able to execute the work safely.

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to provide safety management services to meet the requirements of the Agreement.

Consultant shall prepare Site(s) specific safety plans to address safety management at each Site(s), and shall ensure that Subcontractors, Contractors, and Suppliers' safety management systems and plans reflect the requirements within Consultant's safety management system.

Further details regarding Consultant's responsibilities and requirements related to health and safety management are described in Exhibit 5, Section 4.

3.6.6 Environmental Management

Consultant shall pay the highest regard to protection of the environment in carrying out the Services. Consultant shall conform to all Agreement requirements, including Company's environmental guidelines and policies in this regard.

Consultant's objective is to ensure through the proper application of its environment protection procedures such that the Work is:

- Managed, planned and engineered to minimize any impact upon the environment;

- Performed and completed without incidents detrimental to the environment; and
- Performed in full compliance with the environmental policy objectives.

Consultant shall ensure environmental compliance through the proper operation of an environmental management system.

Consultant's environmental management shall include all environment-related functions at Site(s) to protect the environment, and to prevent environmental impacts.

Further details regarding Consultant's responsibilities and requirements related to environmental management are described in Exhibit 5, Section 17.

3.6.7 Cost Management

Consultant shall be responsible for overall cost management of the Services and the Work against the Company approved control budget and Code of Accounts. Cost management shall include the establishment of an approved control budget; as well as the tracking, monitoring and reporting of all commitments and incurred cost against the approved control budget in order to detect potential variances or trends.

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to provide its cost management services to meet the requirements of the Agreement.

Consultant's cost management services shall include the use of a trend management system to act as an early warning system of potential change and facilitate Consultant's management of potential changes and accurate forecasting of cost against the approved control budget.

Consultant's cost management services must be fully integrated with its Schedule Management services in order to for Consultant to produce timely progress and performance reports using Earned Value Management practices.

Consultant shall specify to Sub-Contractors, Contractors, and Suppliers the requirements for cost management and reporting, and shall receive, analyze, approve and integrate Subcontractors, Contractors, and Suppliers' data and information as input into Consultant's cost reports.

Consultant shall produce regular cost reports for the Services and the Project as specified within the Agreement.

Further details regarding Consultant's responsibilities and requirements related to the provision of cost management services are described in Exhibit 5, Section 7.

3.6.8 Schedule Management

Consultant shall be responsible for overall schedule management of the Services and the Work against the Project Milestone Schedule, contained in Exhibit 7. Consultant shall develop a Project Control Schedule for the Services and the Project, for approval by

Company, that reflects both the milestones contained within the Project Milestone Schedule, and the Consultant's Project Execution Plan.

Consultant's schedule management responsibilities shall include the development of schedules; analyzing schedule using Earned Value Management practices to detect variances / trends; forecasting completion dates; report the progress against approved schedules; and taking corrective remedial action against negative schedule variance.

Consultant shall specify to Contractors, Sub-Contractors, and Suppliers the requirements for development and approval of schedules, management and reporting against these schedules, and shall receive, analyze, approve and integrate Subcontractor, Contractor, and Supplier data and information as input into Consultant's schedule management and reporting activities .

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to provide its schedule management services to meet the requirements of the Agreement.

Further details regarding Consultant's responsibilities and requirements related schedule management are described in Exhibit 5, Section 18.

3.6.9 Risk Management

Company has implemented a formal risk management system for the LCP under the umbrella of its corporate enterprise risk management program. Company's risk management program for the LCP has the objectives of:

- Identifying and analyzing risks and opportunities which have potential safety; environmental, operational, cost, schedule or reputation implications;
- Utilizing knowledge of these risks and opportunities to facilitate more effective decision making by removing uncertainty and / or capitalizing on the opportunity;
- Responding to identified risks in a timely and cost effective manner in order to control their potential adverse and / or beneficial impact; and
- Allocating or transferring risk ownership to the party who can most efficiently and effectively manage the risk.

Consultant is responsible to ensure an understanding of the documentation requirements of Company, to participate in the Company's overall risk management program for the LCP.

Consultant shall develop and implement a risk management plan for the Project under the framework of Company's risk management program, and shall lead project-level risk management activities for the Project.

Further details regarding Consultant's responsibilities and requirements related to risk management are described in Exhibit 5, Section 10.

3.6.10 Project Change Management

Consultant shall be responsible for the management of change to the Project, including changes to the Services, the Work, Lower Churchill Project Basis of Design, organization, and

all other changes to the Project. Consultant shall ensure that all changes to the Project are managed in order to achieve Company's objective for the LCP.

Further details regarding Consultant's responsibilities and requirements related to Project Change Management are described in Exhibit 5, Section 8.

3.6.11 Engineering Management

Consultant shall manage all engineering in relation to the Services, giving particular consideration to all requirements and interfaces of design, procurement, construction, Completions and Operations. Consultant shall ensure that all engineering in relation to the Services conforms to all requirements of the Agreement, including particularly those of the Government Authorities.

Consultant shall request and obtain Company approval prior to sub-contracting any Engineering Services.

Further details regarding Consultant's responsibilities and requirements related to the management of Engineering Services, including responsibilities and requirements regarding Company's oversight for technical and design integrity, are described in Exhibit 5, Section 11.

3.6.12 Procurement and Contract Management

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to provide its procurement and contract management services to meet the requirements of the Agreement.

Further details regarding Consultant's responsibilities and requirements related to procurement and contract management are described in Section 3.4 in this Exhibit 3 and in Exhibit 5, Section 6.

3.6.13 Construction and Completions Management

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to provide its Construction Management services including management of specific Project Completions activities including Mechanical Completion, to meet the requirements of the Agreement.

Further details regarding Consultant's and Company's responsibilities and requirements related to the provision of construction management services are described in Exhibit 5, Section 12.

Further details regarding Consultant's and Company's responsibilities and requirements regarding Project Completions activities are described in Exhibit 5, Section 13.

3.6.14 Information Management

Information Management (IM) for the LCP includes the management of all information created, generated or received as a result, or in support of, the activities required for

planning, execution and Project implementation. Included are the associated processes, resources and tools required to manage this information throughout its life cycle.

The specific functional areas of IM required for the Project are:

- Records management;
- Document Management/Control;
- Data Management;
- Information Systems/Information Technology (IS/IT), and
- Information Security.

Project document “Lower Churchill Project – Information Management Policy” document number MSD-IM-003 and Project document “Lower Churchill Project - Information Management Strategy” document number MSD-IM-003 - listed in Exhibit 6 provides the overall policy, strategy and direction with respect to Information Management for the LCP.

Consultant shall establish secure, Agreement-specific, Information Management system(s), acceptable to Company, and meeting Company’s expectations and requirements as outlined in the document “Lower Churchill Project - Information Management Strategy”. The Information Management system(s) shall be capable of efficient capture, distribution/dissemination, management, filing and retrieval of all data and documentation in relation to the Services.

Consultant shall:

- Maximize the use of electronically-accessible documents and data on a common or integrated system where possible;
- Ensure the latest version of all information shall be readily available to all relevant parties (including Company, Subcontractors, Suppliers, Other Consultants, and Contractors) at all times;
- Establish control procedures to prevent the use of outdated documentation or data by any party;
- Have satisfactory infrastructures, systems, procedures and resources to ensure the security of all documentation and data;
- Provide disaster recovery plans for both hard copy and electronic information, and
- Format and deliver all electronic documentation and data in compliance with Company’s requirements.

Coding of all information pertaining to the LCP shall be in accordance with document “Lower Churchill Project – Coding Standard”, document number MSD-IM-008 listed in Exhibit 6. Further details regarding Consultant’s and Company’s responsibilities and requirements related to Information Management are described in Exhibit 5, Section 16.

3.6.15 Invoice and Payment Management

Consultant shall provide all required administration support, Personnel resources, systems, processes, and anything else required to enable Consultant to manage invoicing and payment for its Services.

Further details regarding Consultant's and Company's responsibilities and requirements regarding invoicing and payment are described in Exhibit 5, Section 14.

3.6.16 Engineering and Drafting Control for the Project

Consultant shall implement comprehensive engineering and drafting controls for the Engineering Services. All procedures shall be structured to ensure that there is a common approach to the design and that the design errors are minimized. Central to these controls shall be an Engineering Management Plan that shall be issued for approval by Company in accordance with Exhibit 5, Section 11. The mechanisms for checking and approval of all calculations, specifications, data sheets, and drawings will be adopted and strictly adhered to. Checking and approval of these documents shall be within scope of the Services. Consultant shall ensure that this procedure is strictly implemented.

As part of its Engineering Management Plan, Consultant shall develop a drawing control procedure for acceptance by Company in accordance with Exhibit 5, Section 11. This procedure should address 3D, CADD, GIS, manual drafting, and any other method. The procedure shall have particular emphasis on the unique drawing control problems associated with CADD drafting. The CADD procedure should ensure adequate backup is maintained and that the control of plotted drawings is sufficient to prevent duplication of out of date drawings.

All technical documentation completed by Consultant, Subcontractor(s), Contractors and Suppliers shall meet Company's requirements.

Further details regarding Consultant's responsibilities and requirements related to engineering and drafting control are described in Exhibit 5, Section 11.

3.7 COMPLIANCE WITH PROJECT MILESTONE SCHEDULE

Consultant shall perform all Services and prepare all plans and schedules required for the detailed planning and management of the Services to meet the Project Milestone Schedule. Such plans and schedules shall address all Services' activities without limitation, including Engineering Services, Procurement Services, Construction Management Services including commissioning services to ensure that the Project is completed on schedule in accordance with the requirements of the Agreement.

Consultant shall identify potential risks to the schedule-critical elements of the Services and shall develop contingency plans to ensure prompt implementation of pre-emptive and corrective actions whenever they are needed.

3.8 OFFICE FACILITIES AND SERVICES FOR COMPANY

Consultant shall provide office facilities and associated services to the Company as required by Company during the execution of the Agreement.

Exhibit 5, Section 2 sets out the details of office facilities and associated services that shall be provided by Consultant for Company.

3.9 REGULATIONS AND PERMITTING

3.9.1 General Requirements

Consultant shall comply with all relevant Laws, including conditions of Environmental Assessment release, and / or regulations of any governmental authorities having jurisdiction with respect to the Services.

Consultant shall prepare all documents, drawings, Design Briefs, analyses, manuals, etc. as required by any governmental authorities with respect to the Services.

Company Document PM0010 "Regulatory / Permitting List" located in Exhibit 6 highlights the consents, licenses, permits, notifications and approvals that may be required by the LCP, covering the Project phases from pre-construction through to Operations.

Consultant shall determine and put into effect all regulatory, and permitting requirements, including conditions of Environmental Assessment release, affecting the performance of the Services, including design, engineering, procurement/manufacture, transportation, construction, and Completions activities.

Consultant shall prepare and issue a regulations register in accordance with the requirements outlined in Exhibit 6 identifying the current (or otherwise specifically applicable) version of all documents that contain regulatory, certification, and permitting requirements applicable to the design, engineering, procurement/manufacture, fabrication, transportation, construction, and Completions for the Project. Consultant shall keep the regulations register fully updated at all times throughout the performance of the Services. The register shall identify the latest editions of such documents and where Consultant and/or Company Personnel can access each document freely. Note that the editions of these documents that are current at the time of Agreement signing will be the basis of design and construction. Updates and later editions that are issued during the course of the Agreement are to be reviewed by Consultant and the effects on the Services and on the Project provided to Company for evaluation.

3.9.2 Regulations

Consultant shall be familiar and comply with the technical and safety requirements of Canadian Standards and Laws related to environmental, safety and health issues where applicable in Consultant's and Subcontractors' work location(s).

In performing the Services, Consultant, its Subcontractors shall be familiar with and comply with all Laws for equipment and facilities certification. This applies to actual equipment used during fabrication at Contractor or Supplier locations.

Consultant is responsible for cooperation and coordination with the Government authorities including arranging the supply of necessary documents, drawings, calculations, etc. wherever required as determined during any process for equipment and facilities certification associated with the Project. The form of cooperation includes arranging provision of access for Company and any third party inspectors to Site(s) and documents, drawings, and calculations.

3.9.3 Permitting

Consultant is responsible, except as otherwise noted, for obtaining all regulatory permits, approvals, consents, documents and licenses required for performing the Work. Consultant shall develop and maintain a permit plan identifying permits required, dates required, and submittal and expected processing durations. Both permits and certifications will be covered in this plan. The Consultant shall identify permits which can only be obtained by Company. Company will be responsible for obtaining these permits with the assistance and input from the Consultant.

Consultant is responsible for producing and providing any information and documentation required for Company to obtain all applicable Governmental Authorities' approvals. As requested by Company, Consultant shall submit copies of Project documentation and technical information to Governmental Authorities to enable Company to secure such permits.

Any consequences for non-compliance of Consultant, its Subcontractors, Contractors and Suppliers to the required permits, documents and licenses to perform the Work shall be to Consultant's account including payment of fines.

Consultant is responsible for obtaining documents such as visas and work permits for its Personnel.

Further details regarding Consultant's responsibilities and requirements related to regulations and permitting and engineering are described in Exhibit 5, Section 17.

3.10 NEWFOUNDLAND AND LABRADOR BENEFITS OBLIGATIONS AND REPORTING

Company is committed to supporting the accrual of benefits for the people of Newfoundland and Labrador, with Labrador residents benefiting from both business and employment opportunities. To ensure maximum return on investment and in turn to maximize benefits for the people of the Province, the LCP will be executed on an economic basis adhering to competitive business practices.

Consultant shall work together with Company and all LCP 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 LCP through access of Best Value in the acquisition of goods and services. Consultant shall commit to the following:

- A. Consultant and Company shall work together to form a high performing team to optimize Newfoundland and Labrador Benefits on the Project;
- B. Consultant and Company shall work together to develop and execute an implementation plan consistent with the objectives and principles committed to by Company as relating to optimizing Newfoundland and Labrador Benefits on the Project;

- C. Consultant and Company shall work together to develop and implement a contracting and purchasing policy consistent with the objectives outlined in section 5.1 of Proposal Form B6, Newfoundland and Labrador Benefits Questionnaire;
- D. Consultant and Company shall work together to ensure information relating to Newfoundland and Labrador Benefits is collected and available for reporting purposes by Company.

Further details regarding Consultants responsibilities and obligations are described in Exhibit 5, Section 15.

EXHIBIT 4

COMPENSATION

4.0 COMPENSATION

4.1 Introduction

Consultant shall perform the Services and assume all obligations required by this Agreement for the compensation set forth in this Exhibit 4. Consultant shall prepare and submit invoices in accordance with Exhibit 5.

As full compensation for the Services and all other obligations under this Agreement, Company shall pay Consultant the amounts, referred to collectively as the Agreement Price, as set forth in this Exhibit 4. The Agreement Price is made up of two components: a Fixed Fee and Reimbursable Costs. These elements shall cover Consultant's costs for performing the Services under this Agreement. More complete descriptions of the content of these two components are presented herein.

The Agreement Price for the Services is fully inclusive and is the total compensation Consultant shall receive for complying with and fulfilling all instructions and obligations in this Agreement. Only those rates and prices specifically identified in Exhibit 4 shall be paid by Company to Consultant. All costs not identified are deemed to be included in the rates and prices stated herein.

The currency of the Agreement is Canadian dollars.

4.1.1 Escalation

The Fixed Fee component of compensation is not subject to escalation. All Reimbursable Costs will be escalated based on the following:

(Insert Proposal Form B7 as negotiated)

4.2 Fixed Fee

4.2.1 General

The Fixed Fee is a lump sum amount covering Consultant's costs set forth below as being covered by the Fixed Fee. In general, these costs include Consultant's profit and corporate office overhead and other general costs of doing business not specifically recovered elsewhere in the Agreement including the following:

- Advertising for corporate or general purposes
- Debt interest, cost of capital
- Profit sharing
- Business risks

- Depreciation/ amortization not covered in office overhead or other fixed rates
- Corporate dues
- Executive salaries (and payroll burdens)
- Administrative and executive support personnel (and payroll burdens)
- Sales, business development, including technical participation
- Consultant's own research and development costs
- Legal costs
- Corporate accounting (accounting done for Consultant's general business needs versus accounting for project specific requirements)
- Umbrella insurance
- All costs that are not specified as Reimbursable Costs under this Agreement
- Taxes based on income and licenses/ know-how fees
- All profit related to performing the Services
- Professional engineer licenses to stamp documents
- Team building events
- Team building purchases such as clothing, mugs, kit bags etc.
- Professional memberships, corporate registration and other fees

The Fixed Fee is not subject to escalation and is fixed for the duration of the Agreement. The Fixed Fee may only be increased or decreased in the event of a substantial change to the Services in accordance with Article 23 of the Agreement.

No adjustments to the Fixed Fee will be made if Consultant discovers errors or omissions in its estimates of the amount of Services to be provided or the costs of or the time required for performing Services. No adjustments to the Fixed Fee will be made for changes that are part of normal design, engineering, procurement and construction management development and issues.

The Fixed Fee for the Services shall be a total of \$ _____ CDN.

Consultant shall invoice Company for the Fixed Fee for the Services in accordance with the following schedule:

(Insert Proposal Form B2 as negotiated)

4.3 Reimbursable Costs

4.3.1 General

This Reimbursable Cost section details the rates and methods used to compensate Consultant for the performance of the Services under this Agreement. Services include engineering services, services related to procurement of permanent

equipment and materials for the Project, contracting activities for construction and other project related services, construction management services, and project management services as described in Exhibit 3.

The terms of this Exhibit 4 shall also apply to any Subcontractor that performs a part of the Services.

Reimbursable Costs shall consist of those costs actually incurred and paid by Consultant in performance of the Services, net of any discounts, refunds, retroactive adjustments, or other reductions.

Reimbursable Costs only include those costs allowed under this Exhibit 4 of the Agreement.

Reimbursable Costs must have been incurred after the Effective Date.

Reimbursable Costs exclude the costs of materials/ services and other items that are provided for in the fixed rates of this Exhibit 4.

Reimbursable Costs exclude Consultant's profit and general or corporate overhead and other costs of doing business, which are provided for in the Fixed Fee.

Costs not clearly identified in the Agreement as Reimbursable Costs require Company's written approval prior to committing the expenditures in order to qualify as Reimbursable Costs.

Reimbursable Costs are subject to the terms and conditions contained in Article 12 of this Agreement.

Payment for Reimbursable Costs shall be per the terms contained in Article 12 of this Agreement.

4.3.2 Reimbursable Labour Cost

Consultant shall submit a list of proposed Project Personnel, with appropriate Project Assignment Authorization (PAA) forms, for each phase of the Services for the approved positions. The PAA forms used shall be in the format shown in Appendix 1 of this Exhibit 4.

Only Personnel approved by Company, via a completed PAA form, and actually performing Services under this Agreement are included as Reimbursable Costs. Consultant shall be reimbursed for such Personnel at a rate equal to their actual hourly rate plus applicable burdens and overheads. Costs for all corporate or other

personnel not on the Project and performing Services under this Agreement or activities in support of Consultant's activities shall be recovered through the Fixed Fee or fixed rates as appropriate.

Company shall reimburse Consultant for costs associated with overtime hours worked, travel (limited to 8 hours per day) and relocation of Personnel as agreed with Consultant. These agreed costs shall be as included in Appendix 2 of this Exhibit 4.

Rates for approved Personnel assigned to the Project shall be subject to validation and Company reserves the right to audit these rates throughout the duration of the Agreement.

Consultant shall give Company at least sixty (60) days notice before any salary increase for Personnel on the Project goes into effect. All salary increases reported shall be consistent with Consultant's salary treatment of other personnel (whether on the Project or not) within its organization. Company reserves the right to challenge any such increases that appear unreasonable and Company must agree to any salary increase through the PAA process.

Consultant's compensation for Services performed shall be based upon Company approved time sheets. Notwithstanding the previous statement, Consultant shall only be eligible for reimbursement for hours actually reimbursed to the Consultants personnel. Time sheets shall be completed and submitted in accordance with Exhibit 5.

4.3.2.1 Salary (Hourly Rate)

Salary is the actual hourly rate paid to Consultants personnel and shall not include any burdens or overheads.

Where employees are compensated based on annual fixed salary, the hourly rate shall equal the annual salary over 2080 hours. Salary (hourly rate) shall be agreed on the PAA approving a resource assigned to the project.

4.3.2.2 Payroll Burden Rates (Fixed Multiplier)

The payroll burden rates shall be used to recover Consultant's payroll burden costs. These include costs for items such as vacations, holidays, pension plan, sickness benefits and insurance, etc.

The payroll burden rates are as follows:

(Insert Proposal Form B3 as negotiated)

The above payroll burden multipliers will be applied against the actual hourly rate for approved Consultant's Personnel to arrive at the total billing rates to be invoiced for labor costs (see Section 4.3.2.7 below).

In addition to Consultant's regular employees, Consultant may source Personnel for this scope of Services through independent contractors or personnel agencies. There will be no mark-up on independent contractors or resources from personnel agencies.

Office overhead rate, computer services rate and reproduction services rate will be applied to the cost of these Personnel who will reside in Consultants office.

4.3.2.3 Office Overhead Rate (Fixed Rate)

The office overhead rate is a fixed dollar amount added to the hourly rate to recover Consultant's office overhead costs for reimbursable Personnel on the Project at locations where Services are being executed.

Consultant's project overhead costs recoverable through the office overhead rate include the following:

- Office equipment and furniture
- Office facilities, maintenance and operation
- Stationary, drafting supplies, personal long distance calls
- Postage, outside services, routine courier service
- Non-reimbursable departmental and functional management personnel
- Non-reimbursable, non-technical personnel i.e. (support, clerical)
- Accounting and general services personnel
- Personnel training and orientation

The office overhead rate does not include costs included in other fixed rates, such as the computer services rate and the reproduction services rate, or the Fixed Fee.

The office overhead rate is as follows:

(Insert Proposal Form B3 as negotiated).

The above office overhead rates will be added to the actual hourly rate for approved Personnel on the Project to arrive at the total billing rates to be invoiced for labor costs (see Section 4.3.2.7 below).

4.3.2.4 Computer Services Rate (Fixed Rate)

The computer services rate is a fixed dollar amount added to the actual hourly rate to recover Consultant's cost component that is required for providing the computer services such as software, network infrastructure, IT support costs including staff, operation, support and maintenance and associated consumables etc. to approved Personnel on the Project performing the Services at various Project locations including Site.

(Insert Proposal Form B3 as negotiated)

The above computer services rate will be added to the actual hourly rate for approved Personnel on the Project to arrive at the total billing rates to be invoiced for labor costs (see Section 4.3.2.7 below).

4.3.2.5 Reproduction Services Rate (Fixed Rate)

The reproduction services rate is a fixed dollar amount added to the actual hourly rate to recover Consultant's costs for reproduction services, including all associated equipment, maintenance, and consumables.

(Insert Proposal Form B3 as negotiated)

The above reproduction services rate will be added to the actual hourly rate for approved Personnel on the Project to arrive at the total billing rates to be invoiced for labor costs (see Section 4.3.2.7 below).

4.3.2.6 Canadian Tax Equalization Rate (Fixed Rate)

If applicable to any assigned Personnel, this percentage rate recovers Consultant's costs for Canadian income taxes for non-Canadian (expatriate) employees.

The Canadian tax equalization rate is as follows:

(Insert Proposal Form B7 as negotiated).

Consultant will review with Company the actual Canadian income taxes paid for expatriate employees on the Project each year. Consultant will calculate the difference between actual income taxes paid to Revenue Canada and the amount

recovered through the Canadian tax equalization Rate. Company shall reimburse Consultant for the difference if the actual amount of taxes paid exceeds the amount recovered through the Canadian tax equalization rate. However, Consultant shall reimburse Company for the difference if the amount recovered through the Canadian tax equalization rate exceeds the actual amount of taxes paid. All such calculations shall take into account each employee's hypothetical tax burden in their home country.

The above Canadian tax equalization rate, if applicable, will be applied to the actual hourly rate for approved Personnel on the Project to arrive at the total billing rates to be invoiced for labor costs (see Section 4.3.2.7 below).

4.3.2.7 Total Billing Rates for Labor

Total billing rate for labor is calculated for Personnel as follows:

$$\text{Total Hourly Billing Rate} = A + (B \times A) + C + D + E + (A \times F)$$

| Cost Component | Comments |
|--------------------------------|-----------------------------|
| Salary (A) | See 4.3.2.1 |
| Payroll Burden Rate (B) | See 4.3.2.2 |
| Office Overhead Rate (C) | See 4.3.2.3 |
| Computer Services Rate (D) | See 4.3.2.4 |
| Reproduction Services Rate (E) | See 4.3.2.5 |
| Canadian Tax Equalization (F) | If applicable - See 4.3.2.6 |

4.3.3 Office Facilities and Services for Company and Company Appointed Third Parties

The provision of office facilities and services for Company Personnel in Consultant’s Project office include for all necessary items in accordance with Exhibit 5, Section 2.

These office facilities and services are deemed to be included in the monthly rates as follows:

(Insert Proposal Form B4 as negotiated)

Furthermore, the rates shall include for:

- (a) all charges in connection therewith, including all provision, maintenance, all necessary attendance, heating, cooling, air conditioning, electrical power, lighting and fittings, water and sewerage services and other utilities, daily cleaning and all necessary building maintenance and repairs.
- (b) The supply of all office stationery required by Company in accordance to Consultant's standard supplies.
- (c) All internet, telephone / facsimile charges other than the net cost of all long distance and international telephone and facsimile calls. Such long distance and international telephone and facsimile calls, shall be reimbursed to the Consultant on production of authenticated receipts (separate billings will be required).
- (d) General document administration and postage other than any courier costs required by the Company. Such courier costs shall be reimbursed to the Consultant on production of authenticated receipts.

4.3.4 Miscellaneous Reimbursable Items

Consultant shall recover miscellaneous reimbursable items through the rates listed below. Prior written approval by Company is required for these items.

(Insert Proposal Form B7 as negotiated)

4.3.5 Location Allowances

The Consultant will be reimbursed separately for the documented cost for any location allowances incurred by Consultant's Personnel in the provision of the Services.

Reimbursement for location allowances costs, where applicable, will be subject to Company's prior approval in accordance with agreed policies and procedures.

Location allowances policies and procedures are identified in Appendix 2.

4.3.6 Travel and Subsistence

The Consultant will be reimbursed separately for the documented cost for any business travel, accommodation, subsistence or similar costs incurred by Consultant's Personnel in the provision of the Services.

Reimbursement for travel and subsistence costs, where applicable, will be subject to Company's prior approval of request for travel in accordance with agreed policies and procedures.

Travel and subsistence policies and procedures are identified in Appendix 2.

4.3.7 Additional Rates

Company may request Consultant to arrange and provide for additional goods and services including but not limited to:

- Provision of computer hardware such as desktop computers, laptops, printers, etc.
- Provision of local transport
- Provision of accommodations
- Third party services

Such requests will be authorized by Company in writing and such authorization will be attached to any invoice submitted by Consultant.

Company shall compensate Consultant for any such Company approved goods and services at the rates listed below.

(Insert Proposal Form B4 as negotiated)

4.4 **Performance Incentive Program**

(If applicable, insert Proposal Form B7 as negotiated)

4.5 **Consultant Key Personnel**

Consultant shall not remove Key Personnel, as listed in Part 2, Exhibit 11, from the Services without first obtaining Company's express written approval. Company's approval shall be subject to Consultant:

- (a) Requesting approval by Company at least 60 days in advance of the date of the proposed removal of individual Key Personnel;
- (b) Providing curricula vitae for replacement candidates, who must have qualifications and experience at least equivalent to those of the Key Personnel Consultant proposes to replace; and

- (c) Arranging a minimum 14 day hand-over period between Key Personnel to be replaced and the Company accepted replacements.

Company reserves the right to require Consultant to pay to Company, liquidated damages of \$50,000 (fifty thousand Canadian dollars) per instance if Consultant replaces Key Personnel without following the criteria in this clause. Such amount is agreed as a genuine pre-estimate of the disruptive effect on the Services due to Consultant's unauthorized withdrawal of its Key Personnel. This provision shall not limit Company's other rights under the Agreement in the event of recurrent unauthorized withdrawal of Key Personnel by Consultant.

Appendix 1

Personnel Assignment Authorization (PAA) Form

PERSONNEL ASSIGNMENT AUTHORIZATION
CONFIDENTIAL

| POSITION INFORMATION | | | |
|---|------------------------------------|--|--|
| Position Title: | | Position Number: | |
| Base Salary: | | Charge Rate (specify daily/hourly): | |
| <input type="checkbox"/> Full Time | <input type="checkbox"/> Part Time | Project working on : | |
| PERSONAL INFORMATION | | | |
| Surname: | | Given Names: | |
| Assignment Location: | | Effective Start Date: (D/M/Y) | |
| Point of Origin: | | Projected End Date: (D/M/Y) | |
| Relocation From: | | | |
| Relocation To: | | | |
| Citizenship: <input type="checkbox"/> Canadian - | | <input type="checkbox"/> Non Canadian | |
| ASSIGNMENT INFORMATION | | | |
| Employer: | | | |
| Assignment Status: | | Overtime: | |
| <input type="checkbox"/> Local Hire <input type="checkbox"/> Relocation <input type="checkbox"/> Project Relocation <input type="checkbox"/> Continuous Travel <input type="checkbox"/> Business Travel | | <input type="checkbox"/> Paid <input type="checkbox"/> Not Paid | |
| | | Base Rate/Hour | |
| | | <input type="checkbox"/> Relocation <input type="checkbox"/> Cost of living allowance <input type="checkbox"/> Management <input type="checkbox"/> Other | |
| Personal Status | | Relocation Allowances | |
| <input type="checkbox"/> Unaccompanied <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> # Dependents | | Lump Sum _____/Mth Housing _____/Mth Furniture _____/Mth Utility-S _____/Mth Utility-W _____/Mth Mob. Allow _____ LS Demob. Allow. _____ LS Vehicle Allow . _____/Mth | |
| | | Tax Protected Items | |
| | | _____ _____ _____ _____ _____ | |
| | | Agency Personnel | |
| | | Agency Name: _____ | |
| | | _____ | |
| | | _____ | |
| Comments: | | | |
| AUTHORIZATION INFORMATION | | | |
| EPCM Project Manager _____ | | EPCM Human Resources _____ | |
| Date: _____ | | Date: _____ | |
| EPCM Business Manager _____ | | EPCM Project Team Lead _____ | |
| Date: _____ | | Date: _____ | |
| Client Approval: _____ | | Prepared By: _____ | |
| Date: _____ | | Date: _____ | |

Distribution: *Project Accounting/Finance* *Parent Company (if applicable)* *Project HR/Personnel File*

Appendix 2

Overtime, Travel and Relocation Policies

(to be extracted from Consultants Proposal)

EXHIBIT 5

COORDINATION PROCEDURES

**COORDINATION PROCEDURES
INTRODUCTION**

The Coordination Procedures provide detail regarding administrative responsibilities and interfaces of Company and Consultant. Consultant shall use the Coordination Procedures in tailoring its standard project plans and procedures to meet Company's requirements. The Coordination Procedures also serve to provide:

- Requirements, over and above those described in Exhibit 3, for the execution of specified important elements of the Services,
- A road map to help Consultant and Company succeed at executing the Services,
- Guidelines which facilitate alignment between Company and Consultant

The Coordination Procedures are divided into sections according to subject matter. The Table of Contents is provided.

It is Company's intention that Consultant uses its own methods and procedures in performance of the Services. However, Company has certain requirements that are specified in the Coordination Procedures with which Consultant shall comply. Where necessary, Consultant shall create, adapt and/or modify its own procedures, practices, systems, or programs to satisfy Company's requirements and include necessary elements required to achieve Company's objectives. Company and Consultant shall work together to mutually agree on a set of methods and procedures for performing the Services.

TABLE OF CONTENTS

| Section | Description |
|----------------|---|
| 1 | Early Activities and General Execution |
| 2 | Organization, Administration, Reporting, Office Facilities and Services |
| 3 | Technical Interface Management |
| 4 | Health and Safety Management |
| 5 | Quality Management |
| 6 | Procurement, Contracting and Materials Management |
| 7 | Cost Management |
| 8 | Project Change Management |
| 9 | Changes to the Services |
| 10 | Risk Management |
| 11 | Engineering and Technical Documentation |
| 12 | Construction Management |
| 13 | Project Completions |
| 14 | Invoicing and Payment |
| 15 | Newfoundland and Labrador Benefits Obligations and Reporting |
| 16 | Information Management |
| 17 | Regulatory and Environment |
| 18 | Schedule Management |

SECTION 1 - EARLY ACTIVITIES AND GENERAL EXECUTION

1.1 SCOPE

This section sets forth minimum early activities associated with preparation for execution as well as general execution activities including:

- A. Preparation of an Execution Plan as pertains to the provision of Services and the overall implementation of the Project.
- B. Understanding of and alignment with Company's objectives, priorities, and philosophies with the aim of Consultant developing appropriate plans and procedures.

1.2 OBJECTIVES

- A. Consultant shall employ a systematic management approach to the provision of Services and the overall implementation of the Project embracing sound management principles.
- B. Consultant, Subcontractors, Contractors and Suppliers shall consistently apply the objectives embodied in the various sections of the Coordination Procedures.
- C. Consultant shall develop, implement, and maintain an Execution Plan covering all facets of the provision of Services and the overall implementation of the Project Work.
- D. Consultant shall fully support Company's oversight and engagement protocols.

1.3 CONSULTANT DUTIES

Consultant shall:

- A. Prepare an Execution Plan and submit the plan to Company for acceptance.
- B. Develop plans for execution of the services as identified in Table 1.1 herein.
- C. Participate in workshops to mutually agree on methods and procedures for the provision of Services and the overall implementation of the Project.
- D. Provide all information requested by Company to support Company's appraisal of Consultant's performance in relation to provision of Services and the overall implementation of the Project, including performance of Subcontractors, Contractors and Suppliers.
- E. Maintain close management alignment with Company during provision of Services and the overall implementation of the Project. Consultant shall provide and cause all Subcontractors, Contractors and Suppliers to provide Company's representatives with reasonable access to all places and information where Services are being provided and Work is being performed.

1.4 COMPANY DUTIES

Company shall

- A. Work with Consultant in the preparation of the Execution Plan.
- B. Have the right, but not the obligation, to monitor and appraise the Services and the Work and results thereof for overall compliance with the Agreement, particularly from the standpoints of safety, quality, cost, schedule and environmental compliance and protection.
- C. Work with Consultant to provide clear and consistent expectations as regards success criteria.
- D. Appraise Consultant's performance of the Services and the overall implementation of the Project and request supporting information with as much prior notice as reasonable.
- E. Work with Consultant wherever reasonable to eliminate barriers to successful provision of Services and overall implementation of the Project.
- F. Review and approve plans.

1.5 SPECIFIC REQUIREMENTS

1.5.1 Execution Plan

Within the time specified by Company, Consultant shall develop an Execution Plan for Company's approval (see Attachment 1.1 for required content and format). The Execution Plan will serve as the basis for developing the detailed plans for the provision of Services and the overall implementation of the Project. Consultant shall also develop and maintain detailed plans for the provision of Services and the overall implementation of the Project as further described in the pertinent sections of the Coordination Procedures.

The following requirements apply to the Execution Plan:

- A. Consultant shall maintain the Execution Plan as a living, working document. Changes will be reviewed and agreed with Company. As changes arise Consultant shall identify and document critical issues and/or potential constraints that could adversely affect the accomplishment of Company's objectives for the provision of Services and the overall implementation of the Project, and shall submit to Company for acceptance.
- B. The Execution Plan shall document the results of the overall planning process for the provision of Services and the overall implementation of the Project. The Execution Plan is a framework from which will evolve the detailed procedures, organization, logic networks, schedules, and other material needed by

Consultant's staff to develop execution details and Consultant's plans for the provision of Services and the overall implementation of the Project.

- C. The Execution Plan shall document Consultant's objectives, priorities, and philosophies that are based on and consistent with Company's objectives, priorities, and philosophies for the provision of Services and the overall implementation of the Project.
- D. The Execution Plan shall establish the basis for the formation of Consultant's Plans the provision of Services and the overall implementation of the Project.
- E. The Execution Plan shall outline formalized processes to be employed to identify broad strategic issues, evaluate impact, develop mitigation measures/action plans, and to follow-up on results of mitigation measures/action plans.

1.5.2 Plans for the Provision of Services and Implementation of the Project

As one of the early Project activities, Consultant shall develop formal / documented plans for the provision of Services and the overall implementation of the Project that include the requirements of the various sections of the Coordination Procedures. Table 1.1 herein provides a summary listing of required plans and other deliverables that Consultant shall develop as part of early Project activities. The listing includes the minimum requirements as outlined in the various sections of the Coordination Procedures, and is not considered an exhaustive listing. The actual listing of plans to be produced will be finalized by Consultant in conjunction with Company. Consultant shall maintain the plans. Changes will be reviewed and agreed with Company. Plans will reference Consultant's procedures.

Consultant shall conduct a series of workshops with Company to establish alignment on Consultant's plans. During these workshops, Consultant shall overview its own methods and procedures for performing, monitoring, and appraising the provision of Services and the overall implementation of the Project Work. Consultant shall participate with Company in identification of any gaps, and shall incorporate results from gap analyses.

These workshops shall be held beginning within 14 days of Agreement Award and shall be completed within 45 days of Agreement Award.

ATTACHMENTS

**ATTACHMENT 1.1
EXECUTION PLAN CONTENT****Project Objectives and Strategies**

- Provides overview of the Project objectives and strategies

Execution Methodologies

- Outlines Consultant's general execution approach for implementation of the Project
- Outlines Consultant's overall approach for the provision of Engineering Services, Procurement Services and Construction Management Services

Project Management Systems

- Defines Project management systems, processes, procedures and tools

Safety and Environment

- Defines Project safety and environment related philosophies, goals and targets by quarter and by year
- Provides strategies for achieving safety and environment related goals and targets by quarter and by year
- Provides overview of safety plans and environmental plans and approaches to be employed (to be more specifically detailed in the respective formal management plans)
- Defines strategies for achieving regulatory compliance

Quality

- Defines Project quality philosophies, goals and targets by quarter and by year
- Provides strategies for achieving quality goals and targets by quarter and by year
- Provides overview of quality plans and approaches to be employed (to be more specifically detailed in the Project Quality Plan)

Cost

- Provides overview of cost management approach and methodology
- Provides overview of the Services Budget and Sanction Cost Estimate
- Provides framework for budget stewardship, control and responsibilities within the line organization
- Provides details on cost control strategies, methods, procedures and cost growth mitigation approaches
- Provides details on cost tracking and reporting

Schedule

- Provides overview of planning and scheduling approach and methodology
- Provides overview of the Project Control Schedule
- Provides framework for schedule stewardship, control and responsibilities within the line organization

- Provides details on schedule control strategies, methods, procedures and schedule growth mitigation approaches
- Provides details on schedule tracking and reporting

Key Performance Indicators (KPI's)

- Defines key performance indicators as related to provision of Services and Project execution

Risk Management

- Defines the Project risk philosophy
- Provides overview of risk management processes and approaches to be utilized
- Identifies key risks to the Project and mitigation measures

Change Management

- Provides overview of Change Management philosophy and methods

Organization, Responsibilities and Governance:

- Provides organizational approach to be utilized during all phases of the Project including organization strategies & organization charts and updates thereof
- Provides defined roles and responsibilities for organization units and key personnel, including for Subcontractors in the form of a RACI or LACTI chart
- Identifies and provides responsibilities and authorities of key personnel
- Determine resource allocation required to perform the work (e.g. histograms by discipline)
- Identifies the recruitment and retention plans for the team
- Includes relevant information on levels of decision making authority and financial authority within the organization
- Includes details on overall governance approach to be taken for the Project
- Includes mobilization plans

Interface Process Overview and Key Interface Points

- Provides overview of key elements of interface process to be used
- Provides reference to the other procedures, etc. that will define the detailed technical interface process
- Provides identification of person to person contacts between Consultant's organization and Subcontractors and Company (including position, name, overview of responsibilities of the interface)
- Provides guiding principles for Consultant and Company expectations, obligations, interaction, behavior and effective resolution of issues

Work Breakdown Structure

- Provides definition of boundaries of the work elements reflecting both physical and commercial compensation boundaries

- Provides definition of engineering, procurement, fabrication, erection, etc. provided within each work breakdown structure (WBS)

Information Management

- Provides overview of approach to Information Management and Document Control

Overview of the Further Development of Detailed Functional Project Plans/Procedures

- Provides a framework for understanding the development of detailed Project plans required for management of the overall activities
- Provides definition for the timing and responsibility of developing detailed functional plans
- Provides guidance for required content and scope of the detailed functional plans

Newfoundland and Labrador Benefits

- Provides strategies for Newfoundland and Labrador Benefits philosophy execution
- Provides overview of how specific Newfoundland and Labrador Benefits targets or commitments will be met

**TABLE 1.1
 SUMMARY OF DELIVERABLES**

| Section | Document Name | Submittal Date 'Not later than...' |
|---------|--|---------------------------------------|
| 1 | Execution Plan | AA + 45 days |
| 2 | Organization Charts | AA + 30 days |
| 3 | Technical Interface Management Plan | AA + 90 days |
| 4 | Project Health and Safety Management Plan | AA + 60 days |
| 4 | Site Health and Safety Plans | AA + 180 days (2) |
| 5 | Project Quality Plan | AA + 60 days |
| 6 | Overall Purchasing Plan | AA + 30 days (3) |
| 6 | Individual Purchasing Plans | As Required |
| 6 | Overall Contracting Plan | AA + 90 days |
| 6 | Individual Contracting Plans | As Required |
| 6 | Materials Management Plan | AA + 60 days |
| 6 | Logistics Plan | AA + 90 days |
| 7 | Cost Management Plan | AA + 30 days |
| 7 | Detailed Cost Estimate for the Services | AA + 60 days |
| 8 | Project Change Management Plan | AA + 60 days |
| 9 | Change Control Plan | AA + 30 days |
| 10 | Risk Management System and Criteria | AA + 60 days |
| 10 | Risk Assessment Plan | AA + 60 days |
| 11 | Review Plan for Company Documentation | AA + 30 days |
| 11 | Design Verification Plan | AA + 60 days |
| 11 | Engineering Management Plan | AA + 60 days |
| 11 | Operations and Maintenance Plan | AA + 365 |
| 11 | Design - Construction Management Plan | AA + 60 days |
| 12 | Construction Management Plan | AA + 90 days |
| 12 | Site Security and Access Control Plan | AA + 90 days |
| 12 | Health Management Plan | AA + 60 days |
| 13 | Project Completions Philosophy | AA + 365 days |
| 14 | Invoicing and Payment Plan | AA + 30 days |
| 16 | Information Management Plan | AA + 30 days |
| 16 | Central Document Register (initial) | AA + 60 days |
| 17 | Regulatory Compliance Plan | AA + 90 days |
| 17 | Environmental Management Plan (EMP) | 120 days (4) |
| 17 | Project Environmental Protection Plan (EPP) | AA + 90 days |
| 17 | Site Specific Environmental Protection Plans | 0 days (4) |
| 17 | Rehabilitation Plans | AA + 365 |
| 18 | Schedule Development and Control Plan | AA + 30 days |
| 18 | Project Control Schedule | AA + 60 days |

Notes for Table 1.1

- (1) AA means day of date of Agreement Award
 Or 120 days prior to effective field start, whichever is earlier
- (2) earlier
- (3) Or before first inquiry is issued to Proponents, whichever is earlier
- (4) Days before effective field start
- (5) Days mean calendar days

SECTION 2 – ORGANIZATION, ADMINISTRATION, REPORTING, OFFICE FACILITIES AND SERVICES

2.1 SCOPE

This section provides Company's expectations and minimum requirements in relation to Project organizations, general administration, reporting, meetings, and the provision of office facilities and associated services.

This includes, but is not limited to:

- Consultant's organizational structure and the change management of Key Personnel;
- Interactions and communications between Consultant and Company; and
- Office and support service requirements for Company's onsite(s) Personnel.

2.2 OBJECTIVES

- A. To have Consultant to provide an organization with Personnel who meet minimum requirements regarding qualifications and experience, and who have been approved by Company. Note: References to Consultant and Consultant's Key Personnel also include Subcontractor(s) and their Key Personnel.
- B. That Personnel continuity is maintained for all Consultant's Key Personnel throughout the project.
- C. That the delegation of responsibilities and authorities of Consultant's Personnel shall be controlled and documented.
- D. Establishment of clear communication methods to ensure effective and efficient information exchange between Consultant and Company.
- E. Consultant shall provide secure offices and appropriate support services for Company Personnel at the Consultant's Project office(s) which meet Company Standards.

2.3 CONSULTANT DUTIES

Consultant shall:

- A. Provide, for Company acceptance, proposed organization charts identifying key positions required for executing the Services.
- B. Provide all information required by Company.
- C. Seek Company's approval on matters as required by Agreement.

- D. Actively participate in regular meetings with Company, Subcontractors and/or Other Consultants to discuss Services status, issues encountered or anticipated, methods for resolving issues encountered or anticipated, and other topics pertinent to the Services.
- E. Produce timely, accurate and consistent progress reports for the Services and the Project that facilitate proactive management of the Project.
- F. Take formal minutes of meetings and distribute to all attendees and Company for all meetings with Company, Contractors and Suppliers.
- G. Provide effective communication services among Consultant's engineering office(s), Company's Project office(s), and the Site(s). Including processes and technology solutions.
- H. Provide secure offices and support services at Consultant's Project office(s) utilizing key cards with photograph identification (ID). Includes other Site(s) as required by Company by use of key cards with photograph identification (ID).
- I. Provide dedicated support Personnel as required.
- J. Provide required office equipment, including, but not limited to, computer hardware, printers, scanners, fax machines, projectors, video conference equipment, electronic boards, and telephones to a standard acceptable to Company.

2.4 COMPANY DUTIES

Company shall:

- A. Provide to Consultant, Company's Project team organization and key responsibilities.
- B. Define the information and reporting requirements required of the Consultant.
- C. Provide standards for all office related equipment to be provided by Consultant.
- D. Issue notices, responses to Consultants request for information / clarification or guidance, conduct reviews and issue approvals/acceptances within the time limits set in the Agreement.

2.5 SPECIFIC REQUIREMENTS

2.5.1 Project Organizations

- A. Company shall provide a Company Project team organization to Consultant.

- B. Within the overall Consultant organization, each organization shall have Key Personnel assigned with designated authority and responsibility for the given portion of Services. Consultant shall submit to Company a Project organization for the Services denoting clear lines of authority and responsibility for, as a minimum, the following functional areas:
- Project management;
 - Technical Interface management;
 - Health and Safety management;
 - Quality management;
 - Regulatory and Environment;
 - Procurement, contracting and materials management;
 - Project controls;
 - Newfoundland and Labrador Benefits management
 - Engineering, design, constructability and operability;
 - Information Management, including Records Management, Document Management/Control, Data Management and Information Technology/Systems.
 - Construction Site(s) including engineering support, planning, cost and schedule control, material management, quality, safety, construction operations (including field supervision);
 - Completions organization
- C. For each position designated as being key, the following information shall be provided:
1. Person(s) appointed to each key position, with address(es) and telephone number(s).
 2. Job titles
- D. Organizational charts shall also indicate how and to whom Consultant's organization reports in its home and/or any affiliated offices. Include the relationship of Consultant's organization to its corporate and/or departmental organization. In addition, delegation of responsibilities as it relates to the elements of execution shall be designated.
- E. All Personnel shall be approved by Company to work on the Project. Interviews may be conducted at Company's discretion prior to approval.
- F. Reassignment of Consultant's Key Personnel shall be considered by Company and if acceptable approved by Company. All costs associated with reassignments initiated by Consultant, (including mobilization and demobilization), to replace Key Personnel shall be at the sole expense of Consultant.

- G. Consultant shall promptly remove and replace at its sole expense all persons whose performances are unsatisfactory to Company including mobilization and demobilization costs.
- H. Consultant shall update the organization charts as changes occur to the scope of Services, as Consultant's overall organization changes, or as requested by Company.
- I. Consultant shall conduct exit interviews with all Key Personnel who leave the Project and make these exit interview records available to Company.

2.5.2 Administration

- A. All formal correspondence and notices relating to the Agreement shall be exchanged between Consultant's Representative and Company's Representative, using official letterhead and submitted c/o Company Document Control and shall carry the following: subject, date, reference correspondence. Letters will be, to the degree possible, specific to one subject matter.
- B. All deliverables, as defined in the Agreement, shall be exchanged between Consultant's Representative and Company's Representative to be defined per each deliverable.
- C. All agreement deliverables shall be submitted to Company's Representative, c/c Company Document Control, using a uniquely numbered document transmittal.
- D. All information exchanged shall be managed in accordance with Coordination Procedures, Section 16 – Information Management and all associated standards and procedures.
- E. All information created on behalf of Company shall be in accordance with provided or agreed standards, processes and delivery schedules.
- F. Meetings, discussions, oral or electronic, shall not be used as a means of seeking or obtaining direction or agreements. Change requests shall be managed through the agreed Change Request processes.
- G. Minutes of meetings shall be captured by Consultant and submitted to Company for agreement before being issued as final.

2.5.3 Progress Reports

Consultant shall:

- A. Submit reports to Company on the progress of engineering, procurement, and construction and on the status of other activities for the Services as otherwise provided below and other places herein.
- B. Submit a Monthly Progress Report to include Consultant, Subcontractors, major Contractors' and Suppliers' progress to Company no later than the

eighth working day following the end of the month for which progress is being reported. The first Monthly Progress Report shall be issued not later than forty-five (45) calendar days after the date of execution of the Agreement. Details of format and content of the Monthly Progress Report shall be as agreed between Consultant and Company. The Monthly Progress Report should address:

- HSE and security
- General (including Personnel)
- Detailed Design
- Technical Interface Management
- Procurement and Contracting
- Cost
- Schedule
- Risk Management
- Newfoundland and Labrador Benefits
- Construction
- Project Completions
- Regulatory
- Include invoicing and payment log
- Include Change Order log
- Appropriate photos of the previous month's activities representing Project progress

Further details on Company's expectations and guidelines for Consultant's Monthly Progress Report are contained in Appendix 2.1.

- C. Consultant's progress reports shall include a consolidated summary and analysis of all Contractor and Supplier progress for the same period.
- D. Issue a Final Report for the entire Project prior to the Termination Date. Details of format and content of the Final Report shall be as agreed between Consultant and Company, however at a minimum it shall meet the requirements set forth in Appendix 2.1.

Prior to the Final Report, Consultant shall submit lessons learned captured by individual team members on an ongoing basis during the Project. Consultant shall collect and combine them at specific milestones designated by Company.

2.5.4 Weekly Progress Meetings

Weekly review meetings of key Consultant and Company Representative's Personnel shall be held for each location. Details on Consultant's requirements for the Weekly Progress Meetings are contained in Appendix 2.1.

2.5.5 Photographs

Consultant shall provide photographs as Company may request of sufficient quality for possible inclusion in Company's publications depicting significant activities and general progress of the Project.

2.5.6 Office Facilities

2.5.6.1 Main Project Office

- A. Consultant shall supply Company a self-contained, secure office space at the same location as Consultant's main project office located in St. John's, NL.
- B. Space shall be designed to accommodate a per person footprint based on best practice for a standard business office. Including, but not limited to:
 - Individual offices (for managers, leads, human resources (HR) and other senior company personnel). All offices to have outside windows.
 - Single person cubicles
 - Boardrooms/meeting rooms (equipped with table, chairs, telephone, whiteboard with printing capabilities, computer and projector.)
 - Secure Records Management/Document Control/file room
 - Kitchen facilities (equipped with microwave, coffee maker, hot beverage water capabilities, refrigerator, dishware, cutlery, and dishwasher.)
 - Washroom facilities (reasonably located)
 - Secure data room/closet (potential for server room built to industry standards and best practice)
 - General storage facilities
 - Reception area
 - Office machinery area(s) – for shared use faxes, photocopiers, etc.
- C. Office accommodations and furnishings shall be of a standard comparable to the standard provided to Consultants senior management personnel at the Consultants local project office.
- D. Consultant shall provide all office related equipment including, but not limited to:

- Computer workstations and laptops (and any/all peripheral equipment such as cords, power bars, docking stations, etc.) which shall be to Company provided specifications.
 - Printers - colour (combined printer, scanner, photocopier is acceptable)
 - Photocopiers - colour
 - Fax machines
 - Projectors and screens
 - Telephones
 - Scanners
 - Plotters
 - All technology peripherals required for network access such as pix, switches, and potentially servers.
- E. Facility shall be equipped with secure pass card with picture ID access and the associated systems to provide such. Access shall be on a 24/7 basis.
- F. Facility shall be equipped with secure wireless internet, with ability to allow for guest connections that would be separate from Company's wireless connections.
- G. Consultant shall supply all office supplies, cleaning and general consumables for the kitchen and washroom facilities.
- H. Office facility shall be equipped with air conditioning.
- I. Consultant shall provide parking accommodations for Company's team as well as reasonable parking for visitors.

2.5.6.2 Other Project Office Sites

- A. Where individual Company Personnel are assigned to Consultant office(s) for extended periods of time, office space and office equipment shall be provided to the standard afforded to Personnel of equal organizational level within the Consultant's organization.
- B. Where individual Company Personnel are required to visit other Consultant office(s), temporary space shall be provided, which shall include a fully equipped office space with direct international phone access and internet connections. This office space shall be a separate lockable office.

2.5.7 Services

2.5.7.1 Main Project Office

- A. Consultant shall provide support staff, to be assigned solely to the Company's team, in the areas of administration, Document Control, Records management and Information Technology. Company reserves the right to interview and accept such Personnel.
- B. Consultant shall provide all janitorial services for offices, washrooms and kitchens.
- C. Consultant shall provide all telephone and internet services, maintenance and support.
- D. Consultant shall provide access to mail room services including, but not limited to, packaging, courier services, external mail, etc.
- E. Consultant shall supply assistance to Company Personnel for immigration and other formalities required for work or visits to international sites.
- F. Consultant shall provide Information Technology support for areas where technology is provided or interfaced with Consultant's and Company's systems.
- G. Consultant shall provide all office equipment setup, support and ongoing maintenance, with the exception of computers/laptops and associated hardware and software. Company shall provide the "help desk" type support for Company used computers.

2.5.7.2 Other Project Office Sites

- A. Where individual Company Personnel are assigned to Consultant office(s) for extended periods of time, office services shall be provided to the standard afforded to Personnel of equal organizational level within the Consultant's organization.
- B. Where individual Company Personnel are required to visit other Consultant office(s), all office services required shall be provided.

GUIDANCE & EXPECTATIONS

APPENDIX 2.1**General Correspondence**

- All correspondence shall be identified with a sequential numbering system. The numbering system shall be similar for correspondence originating from Consultant and Company but shall allow identification of the source and category of correspondence. Correspondence shall clearly reference earlier communications that are being confirmed or responded to and each piece of correspondence shall be specific to one subject matter.
- Consultant shall use an appropriate transmittal form to submit technical documents, procurement documents, drawings, and electronic media to Company or other parties within Project. Also transmittal forms shall be used for formal submittal of comments to technical documents.

Monthly Progress Report

Each Monthly Progress Report should include the following:

- Highlights in bullet point style of the significant accomplishments achieved and issues addressed during the reporting period.
- A description of problems or delays encountered or anticipated, corrective actions initiated or contemplated to counteract or minimize the effect of such problem, together with the results of any corrective actions already taken.
- The Site(s) safety status including safety statistics for the past month and for the Project to date. The content and format for the safety statistics are provided in Section 4. Major safety problems should be highlighted and action plans to improve conditions outlined. Safety initiatives undertaken during the past month and/or planned for the forthcoming month should be discussed.
- Short narrative covering all significant events during the reporting period
- Current status of the Services - progress data (progress curves, histograms, productivity information, and summary schedules) should be provided on graphs which show actual versus planned progress as further described in Section 18 for: (i) detailed engineering, (ii) equipment and materials orders, (iii) equipment and materials deliveries at the Site(s), (iv) construction, (v) completions, (vi) commissioning and (vii) total scope of the Services. For activities that are behind schedule, an analysis of reasons for the slippage should be included, together with a description of actions to be taken to recover.
- All constructability issues.
- The quality status including quality statistics for the past month and for the Services to date, including coverage of relevant activities called for by Section 5.

- The status of Risk Management program as further described in Section 10.
- The status of Technical Interface Management programs as further described in Section 3.
- The status of cost estimating and cost control, including coverage of relevant activities called for by Section 7.
- The status of planning, scheduling, and schedule control, including coverage of relevant activities called for by Section 18.
- The status of changes in the Services and the Work, if any, and the corresponding current value of Project Budget including the effect of approved and pending Change Orders as further described in Sections 9.
- The status of procurement and contracting, including placement of purchase orders and contracts, status of spare parts orders, performance of suppliers and contractors, and procurement and contract administration matters, as further described in Section 6.
- The status of items involving governmental authorities such as inspections, approvals, permits, clearances, licenses, as further described in Section 17.
- The status of any issues related data management and computer utilization or any systems development work.
- Status reports for the above typically will be in graphical format showing planned and actual with data shown by reporting period and overall supported by data tables and supporting text. The monthly report shall be provided in paper format and electronic format with all graphs, tables in native data format.

Final Report

The detailed contents and format of the Final Report should be proposed by Consultant and submitted for Company's review and agreement not later than ninety (90) days prior to the Termination Date.

In general, the Final Report shall cover in separate sections the results of engineering, procurement, and construction, and significant outcomes in other activities. One section of the Final Report shall be devoted to an analysis of overall job execution citing those actions by both Consultant and Company that: (i) enhanced job performance, or (ii) interfered with or detracted from achieving desired performance. This lessons learned section shall be a prominent part of the Final Report.

Information and topics that should be addressed in Consultant's Final Report are:

- Executive Summary
- Contract Scope and Description
- Services Execution

- Health, Safety, Environment
- Organization and Staffing
- Cost
- Schedule
- Data Management and Computer Utilization
- Engineering
- Procurement
- Contracting
- Newfoundland and Labrador Benefits
- Construction
- Quality Assurance
- Project Completions
- Lessons Learned

Weekly Progress Meetings

Consultant shall prepare and issue a meeting agenda in advance, and should issue minutes of the meeting within two (2) working days after the meeting. Topics to be addressed at Weekly Progress Meetings should include the following:

- Safety performance,
- Progress from previous week,
- Progress planned for upcoming week,
- Key technical decisions made during previous week, including discussion of the rationale and process for making these decisions,
- Key design criteria and basis,
- Quality indicators (NCRs, deviations, assessments, etc.),
- Key procurement progress and update of issues still being worked,
- Discussion of issues with potential cost and schedule impacts (such meetings will not be a forum for submitting Change Orders.),
- Key decisions made; key decisions needed in next 1, 2, and 3 weeks, etc.,
- Technical challenges experienced or pending, with recommended corrective action, and priorities,
- Schedule(s),
- Administrative issues, and
- Constructability and operability issues.

SECTION 3 - TECHNICAL INTERFACE MANAGEMENT

3.1 SCOPE

This section covers Company's minimum requirements for how Consultant shall manage external technical interfaces with other organizations involved in the Project, including Company, Contractors, Company's Other Consultants, and Suppliers. It also addresses minimum requirements for managing internal technical interfaces, including those with Consultant's Subcontractors.

The key premise for this section is that Consultant shall be responsible for development and implementation of a Technical Interface Management System, and associated Technical Interface Management Plan to diligently manage the technical interfaces required to effectively implement the Work.

3.2 OBJECTIVES

Company's objectives for Technical Interface Management are to:

- A. Identify potential interface problems in advance and to avoid interface problems by timely proactive measures;
- B. Establish a plan and system for Consultant to coordinate its activities internally and directly with other organizations, as required to effectively implement the Work;
- C. To promote clear, accurate, timely, and consistent technical related communication with other organizations for transferring interface information;
- D. To identify major technical interfaces early in the Project through a structured process. These will primarily be hard interfaces;
- E. To identify critical technical interface issues with potential impact to Project targets, communicate to all stakeholders, and minimize impacts;
- F. To establish responsibility for, and associate timelines with, completion of actions to resolve interface requests;
- G. To promote thorough and timely resolution of the requests; and
- H. To create a record of Project technical interface request resolution for future reference.

3.3 CONSULTANT DUTIES

In support of Company's objectives, Consultant shall:

- A. Nominate a Technical Interface Manager, who sits on Consultant's project management team providing direct support to Consultant's Project Manager, but not having scope responsible personnel as subordinates. The Technical Interface Manager shall take ownership of the Technical Interface Management Plan and Technical Interface Management System;
- B. Review and understand the LCP Technical Interface Management Procedure (Refer to attached Guidance Document);
- C. Develop a suitable Technical Interface Management Plan and Technical Interface Management System as based on the LCP Technical Interface Management Procedure and develop any supplementary Work Instruction documentation required for implementation of the system;
- D. Develop and manage a Technical Interface Register that summarizes, at a minimum, the definition, responsibilities, timing and status for each interface;
- E. Ensure that interface management requirements are included in all Contracts, such that the Technical Interface Management System is implemented and understood Project wide;
- F. Develop roll-out presentations and steward information sessions to align Consultant, Subcontractors, Other Consultants, Contractors, Suppliers, and Company;
- G. Identify and define major technical interfaces as early as possible through a structured process;
- H. Actively work with Company and Company's Other Consultants to identify and agree on interface deliverables and dates, and to solve potential interface issues before they impact any Project activity;
- I. Adhere to reporting requirements and ensure that critical interface issues with potential impact to Project targets are communicated to all stakeholders, and ensure that reports are provided regularly to Company;
- J. Schedule, participate in, and chair interface coordination meetings with Company, Subcontractors, Other Consultants, Contractors, Suppliers and other organizations, as required, to properly manage interfaces;
- K. Establish a document control function for interface information. It shall describe how interface information is collected, maintained, tracked, controlled and documented. Consultant shall also provide standard formats for documents regarding interface management; and
- L. Regularly advise Company on the status of resolution of interface issues;

3.4 COMPANY DUTIES

In support of Company's objectives, Company will nominate a Technical Interface Leader to be engaged in the Technical Interface Management process to perform due diligence and monitoring to ensure at a minimum, implementation, adherence, timely close-out achievement, reporting, and understanding of critical issues. Company will independently assess any issues with Consultant's Technical Interface Management processes, and will interject where appropriate to ensure resolution is achieved to Company's satisfaction.

3.5 SPECIFIC REQUIREMENTS

Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company, a detailed Technical Interface Management Plan that shall, as a minimum:

- A. Meet the scope, objectives, philosophy, and processes requirements set out in the attached Guidance Document, LCP Technical Interface Management Procedure;
- B. Include supplementary processes, procedures, work instructions, and tools including the Technical Interface Register and Project Technical Interface Form template required for implementation of the Technical Interface Management System;
- C. Address the following:
 1. Consultant shall describe how the Technical Interface Management System shall be initiated, executed, and maintained on an ongoing basis;
 2. Consultant shall identify the process and/or systems to be used to monitor the plan's effectiveness after implementation;
 3. Consultant shall describe its process for working interface issues in a manner that minimizes their impact on schedule. The plan shall identify how issues are to be identified and who has responsibility for resolving them;
 4. Consultant shall describe its process for developing and implementing changes to the plan; and
 5. Consultant shall describe its recovery plans and contingencies.
 6. Interface issues can be identified by anyone in Consultant's organization. Consultant shall formally advise its employees working on the Project of the employee's responsibility to communicate interface issues to their line management.

Guidance Document
LCP Technical Interface Management Procedure

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1.0 PURPOSE

This procedure is to be implemented by Consultant for the Project. The purpose of this procedure is to:

- Define a formal process to manage hard and soft technical interface requests;
- Produce an auditable document trail from interface request initiation through to closure; and
- Expedite formal agreement and resolution of technical interface requests.

This procedure is not intended to pre-empt or discourage the daily informal communication through which a myriad of Project details are typically resolved. It does, however, provide an alternative and formal method of interface communication and resolution.

2.0 SCOPE

This procedure applies to all hard and soft technical interface requests raised among the various Project groups, including, but not limited to, Consultant, Subcontractors, Company, Other Consultants, Contractors and Suppliers.

This procedure does not apply to Project Change Management.

3.0 BACKGROUND

Technical interface requests can be raised by Consultant, Subcontractors, Company, Other Consultants, Contractors and / or Suppliers. Initially, it is envisaged that interface requests will primarily be among Consultant, Subcontractors, Company and Other Consultants while in later phases Contractors, Suppliers and others may become the primary source of interface requests. Consequently, the interface process must be flexible yet simple enough to facilitate this information and communication exchange throughout all phases of the Project.

This interface process should be supplemented by Consultant Work Instructions. These Work Instructions will be generated by Consultant, endorsed by Company's Technical Interface Leader, and used to provide detail in addition to the general procedure outlined in this document. Examples of information that may be included are:

- definition and assignment of interface roles and responsibilities in addition to those specified in this procedure,
- details pertinent to the Project interface tracking system and instructions which establish the frequency, and

- format or schedule for meetings, reports, reviews or other administrative requirements of the interface system.

4.0 OBJECTIVES

The objectives of this procedure are as follows:

- To establish the method by which the Consultant will formally record the detail of Project related soft and hard technical interfaces, as required to effectively implement the Work;
- To promote clear, accurate, timely, and consistent technical related communication at all levels either internally or with other organizations for transferring technical interface information;
- To identify major interfaces early in the Project through a structured process;
- To identify interface issues with potential impact to LCP targets, communicate to all stakeholders, and minimize impacts.
- To establish responsibility for, and associate timelines with, completion of actions to resolve these requests;
- To promote thorough and timely resolution of the requests; and
- To create a record of Project interface request resolution for future reference.

5.0 DEFINITIONS AND COMMENTARY

5.1 ACTION

An action is an event or task that must be executed by an individual to support the Technical Interface Management Plan. In the context of this procedure, actions are driven by the need to resolve / closeout an interface request.

5.2 CLOSEOUT

Consultant's Technical Interface Manager will formally close out an interface request when the associated Action has been completed and approved at the appropriate levels.

Meaning of Interface Closeout:

For the interfacing parties, Interface Closeout means that they agree on the documented criteria and / or configuration as described in the Closeout Package and state that the technical resolution is mutually acceptable. Thereby they agree to progress their scope of work.

For Company, Interface Closeout means acceptance of the documented resolution and endorsement of progress of the Work based upon it.

NOTE: The Interface process is not intended to resolve scheduling or contractual issues.

5.3 CLOSEOUT PACKAGE

A Closeout Package contains a copy of the interface request along with supporting document(s), such as minutes of meetings, facsimiles, reports, tables, emails, correspondence and / or drawings, that the interfacing parties agree closeout the request.

The Closeout Package, compiled by Consultant's Technical Interface Manager and provided to Company via Company's Document Control organization, will have a document number assigned in accordance with "Lower Churchill Project – Coding Standard", document number MSD-IM-008 located in Exhibit 6. Consultant's Technical Interface Manager will distribute the Closeout Package to Company's Technical Interface Leader, and to originating and responding interface parties. Closeout occurs with receipt and acceptance of this package.

5.4 HARD INTERFACE (HI)

A Hard Interface defines how two physical areas / items fit together (size, material, location, etc.). A preliminary list of Hard Interface points, designated HI, will be generated by Consultant and provided to the Company's Technical Interface Leader, and to Subcontractors, Other Consultants, Contractors and Suppliers, as appropriate, for verification. Additions to the Hard Interface list will be implemented through the interface process.

Each Hard Interface has a unique alphanumeric reference number assigned to it by Consultant's Technical Interface Manager. For example, the following is the structure of the HI number:

LCP-HI-XXXXX

LCP = Project Identifier (unique to Project)

HI = Hard Interface

XXXXX = 5 digit sequential number

All Hard Interfaces will be identified and recorded in the Project interface tracking system. A list of these points is available to all appropriate parties and can be requested through the Consultant's Technical Interface Manager.

5.5 INFORMAL COMMUNICATION

Informal information includes exchange between two interface parties (specifically emails and telephone conversations) related to a documented Hard or Soft Interface request. Where considered necessary interacting parties should follow-up by:

- Providing an email to confirm the intent of the conversation;
- Referencing the Hard or Soft Interface number on emails, faxes, letters and sketches or drawings and copying them to the appropriate Manager and to Consultant's Technical Interface Manager;

Informal communication ends when there is a sense that the interface has no substantial issues to prevent resolution or the parties have polarized into two positions that are not resolvable without management intervention;

In the case where informal communication has resolved an interface request, the Closeout process will be implemented.

In the case where informal communication has led to an impasse the item will be referred to Consultant's Technical Interface Manager.

5.6 TECHNICAL INTERFACE

A technical interface is any technical item of engineering, design, construction, supply, installation, commissioning or operations which is the responsibility of one organization / Project scope but which affects the work of one or more other organizations / Project scopes, and which requires formal resolution / agreement between involved parties.

5.7 INTERFACE IDENTIFICATION (ID) NUMBER

The Interface ID Number is a unique alphanumeric number (see HI & SI definitions) assigned by Consultant's Technical Interface Manager to each identified Hard or Soft Interface request. The Interface ID Number is to be used in the subject line of all related communications and correspondence.

5.8 TECHNICAL INTERFACE REGISTER

The Technical Interface Register is a register for tracking all Project interfaces, hard and soft, and that is owned and managed by Consultant's Technical Interface Manager. The register shall include, but not limited to Consultant's interface number, Contractor interface number, title, description, originating company, responding company, date raised, date due, close-out date etc. It is recommended that the register be "Microsoft Excel" based. The register will also be used to track interface close-out progress and other relevant statistics.

5.9 PROJECT TECHNICAL INTERFACE FORM

The Project Technical Interface Form should be available through Consultant's Document Control group. It is used by the Originating Interface Coordinator to document an interface and for transmitting it to Consultant's Technical Interface Manager.

5.10 COMPANY'S TECHNICAL INTERFACE LEADER

Company's Technical Interface Leader is Consultant's Technical Interface Manager's counterpart in Company. Responsible for monitoring to Consultant to ensure the Technical Interface Management Plan and systems are developed, implemented, and enforced, and ensuring that closeouts are being achieved. Company's Technical Interface Leader will have sufficient involvement such that there is transparency between it and Consultant's Technical Interface Manager, and all critical issues are understood.

5.11 SOFT INTERFACE (SI)

A Soft Interface is raised to facilitate technical information exchange between two or more organizations / Project scopes for design or other work (i.e. fluid properties of stream A). The requests are resolved between the technical staff of the interfacing parties without affecting their contract terms and are communicated using Project-registered drawings, specifications, and / or equipment data sheets. The following is the structure of the soft interface number:

LCP-SI-XXXXX

LCP = Project Identifier

SI = Soft Interface

XXXXX = 5 digit sequential number

6.0 ROLES AND RESPONSIBILITIES

The following sections outline the role and responsibility expectations.

6.1 CONSULTANT'S TECHNICAL INTERFACE MANAGER

Consultant's Technical Interface Manager is responsible for and "owns" the Technical Interface Management System, including any supporting documentation and software. The Technical Interface Manager is solely responsible for the maintenance and management of the interface system. The Technical Interface Manager ensures that interface data is recorded and maintained, monitors activity to resolve interface

requests, and officially closes these requests after all relevant actions have been documented, completed, and verified.

Consultant's Technical Interface Manager is responsible for reporting interface statistics and keeping Company's Technical Interface Leader informed of their status. The Technical Interface Manager may delegate some administrative functions to Project personnel but retains responsibility for the interface management system.

In addition, Consultant's Technical Interface Manager is responsible to (not necessarily in order of priority):

- Maintain transparency with Company's Technical Interface Leader, and ensure Company is fully aware of all interface management related achievements or issues.
- Develop, roll-out, and implement the Interface Management Process;
- Receive and action interface requests;
- Develop and manage the Technical Interface Register;
- Provide support processes to manage resolution of technical interfaces;
- Ensure that open communications are maintained between interfacing parties;
- Chair regular (minimum bi-weekly) interface meetings between all Project Interface Coordinators. Items to be addressed in these meetings will include interface status, interfaces to be closed, any outstanding issues and upcoming (new) interfaces;
- Ensure that appropriate Consultant managers and Company's Technical Interface Leader are regularly informed of the status of interface requests;
- Ensure that this procedure and proper documentation protocol is being followed. This includes ensuring timely registration of Project-wide interfaces, and that closed interfaces are registered and documented as being closed out after having compiled the Interface Closeout Package;
- Monitor interface progress and Project activity affecting interface issues; and
- Prepare and present weekly interface status reports for Consultant's team and for Company's Technical Interface Leader.

6.2 COMPANY'S TECHNICAL INTERFACE LEADER

Company's Technical Interface Leader is responsible to (not necessarily in order of priority):

- Monitor the development, roll-out, and implementation of the Technical Interface Management Plan and System;
- Attend regular (minimum bi-weekly) interface meetings between all Project Interface Coordinators;

- Ensure that Company Management Team is regularly informed of the status of interface requests;
- Monitor interface progress and Project activity affecting interface issues, and interject where appropriate to assist in rectification of issues;
- Prepare and present weekly interface status reports for Company Management Team.

6.3 SCOPE RESPONSIBLE PERSON

The Scope Responsible Person the person who is responsible for the particular scope that is affected by the interface in question. This person shall be engaged in the process, in particular, the interface response and reject / accept approval.

6.4 ORIGINATOR

An Interface Originator can be anyone working on the Project including, but not limited to, Consultant team members, Company, Subcontractors, Contractors, Suppliers, and Other Consultants. An Interface Originator identifies an interface issue and brings it to the attention of the designated Interface Coordinator (Originating Interface Coordinator) responsible for their group or organization. The Interface Originator will assist the Originating Interface Coordinator in understanding and framing the interface issue into a form which will provide sufficient information to achieve a complete response from the responding party.

The Interface Originator and/or the Originating Interface Coordinator will record their interface request on the Project Technical Interface Form (refer to Section 8.0) and submit it to Consultant's Technical Interface Manager by e-mail.

The Interface Originator will be informed of the progress of the interface issue through the Originating Interface Coordinator and will receive a copy of the Closeout Package through them.

6.5 INTERFACE COORDINATOR

The Interface Coordinator is the single point of contact for all interface requests generated within their group or organization. Interface Coordinators' general responsibilities include:

- Identifying and describing interface items and raising these requests to Consultant's Technical Interface Manager;
- Tracking the progress and reporting the status of, interface requests either originated, or being responded to, by their group or organization;
- Leading technical interface resolution efforts for their group or organization;

- Calling interface meetings as required with others and Consultant's Technical Interface Manager; and
- Ensuring that documentation protocol is maintained.

Interface Coordinators will act in one of the two following roles when working an interface issue with another group:

- Originating Interface Coordinator; or
- Responding Interface Coordinator.

The titles refer to the group or organization raising the interface issue (originating) and who has been tasked to respond to it (responding). The responsibilities associated with the titles are detailed in the appropriate sections below.

6.6 ORIGINATING INTERFACE COORDINATOR

The Originating Interface Coordinator's responsibilities include those of an Interface Coordinator and the following:

- Formulating a concise statement of the interface on the Project Technical Interface Form so that Consultant's Technical Interface Manager and Responding Interface Coordinator can clearly identify the information which would comprise a complete response. For Hard Interfaces the Project Technical Interface Form will include the technical details relevant to the HI;
- Communicating with other interface party(s) status of information and requesting technical information offline (email and telephone);
- Reviewing information received from the Responding Interface Coordinator; and
- Sharing technical information with the other interface party to aid in the resolution of an interface.

6.7 RESPONDING INTERFACE COORDINATOR

The Responding Interface Coordinator's responsibilities include those of an Interface Coordinator and the following:

- Responding to interface actions as assigned by Consultant's Technical Interface Manager;
- Determining the actions and information required to close out an interface in conjunction with the Originating Interface Coordinator;
- Designating a technical person within their organization to resolve any particular interface if they are not best suited to the task;

- Sharing technical information with the other interface party to aid in the resolution of an interface; and
- Providing the necessary documentation to Consultant's Technical Interface Manager for the interface closeout package.

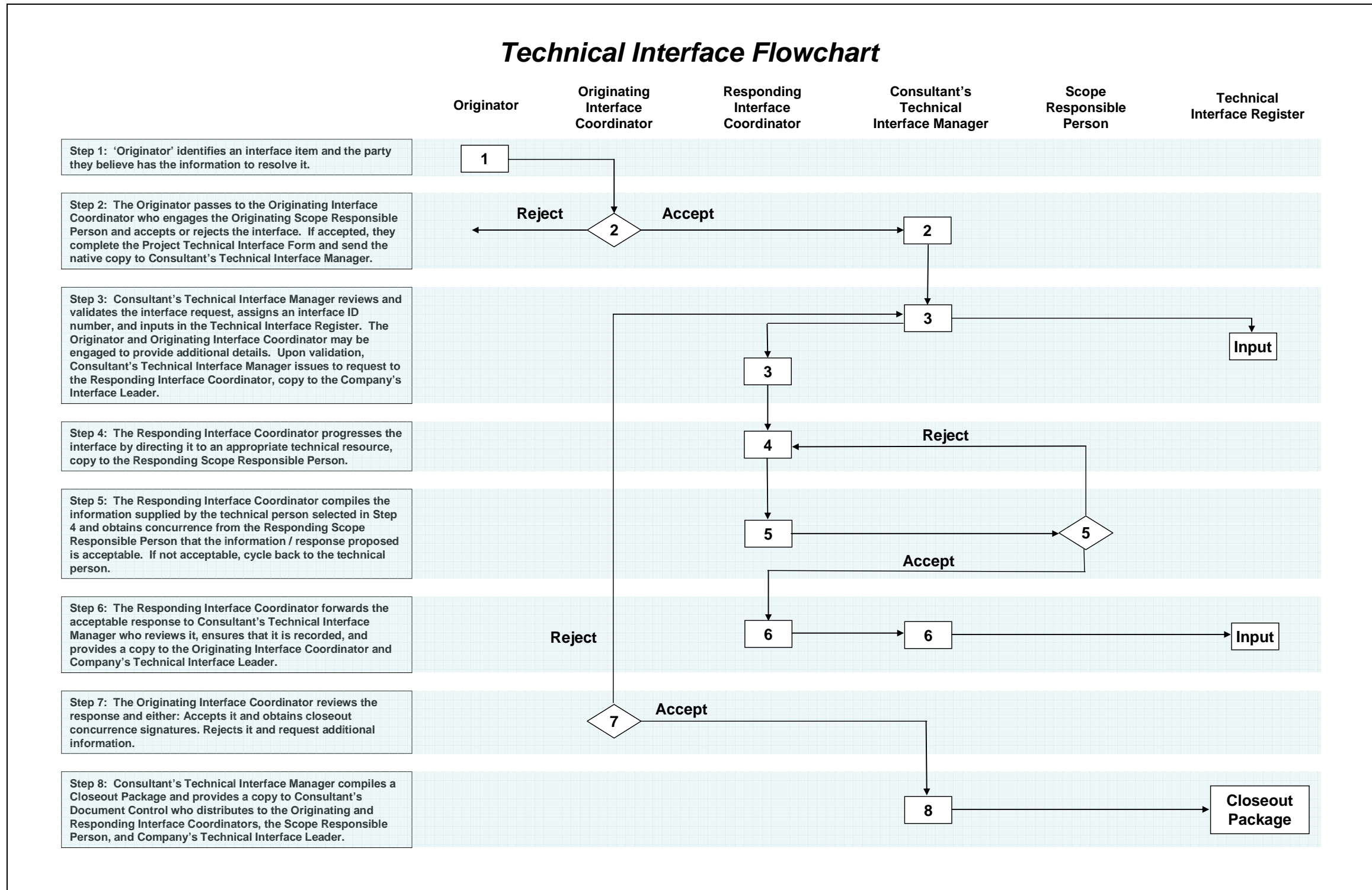
6.8 CONSULTANT'S DOCUMENT CONTROL

Consultant's Technical Interface Manager will ensure that Interface Closeout Packages are provided to Consultant's Document Control, and eventually Company's Document Control so that:

- Document numbers can be assigned; and
- The Packages can be filed in the Document Management System.

Distribution can be performed in accordance document control procedures (completed by Consultant's Technical Interface Manager with distribution to the Company's Technical Interface Leader and other interfacing parties).

7.0 TECHNICAL INTERFACE FLOWCHART



8.0 DRAFT PROJECT TECHNICAL INTERFACE FORM

The following is a draft Project Technical Interface Form that has been included for illustration purposes. The actual form should be finalized by Consultant’s Technical Interface Manager, agreed with Company’s Technical Interface Leader, and filed with the Consultant’s Document Control.

| PROJECT TECHNICAL INTERFACE FORM | | Closeout Package Document # (Added upon Close Out) | |
|---|-----------------------------------|--|--|
| Interface No: | Rev: A | Page | of |
| | | Revision Date: | |
| Title: | | | |
| Short Description: | | | Required Date: |
| Originating Group: | | Responding Group: | |
| Originating Interface Coordinator: | | Responding Interface Coordinator: | |
| Originating Technical Contact: | | Responding Technical Contact: | |
| Interface Details (Deliverable Description): | | | |
| DRAFT | | | |
| Comments: | | | |
| | | | |
| Reference / Attachment List | | | |
| | | | |
| Interface Agreement Approval | | | |
| Originating Technical: | | Responding Technical: | |
| Printed Name: _____ | | Printed Name: _____ | |
| Date: _____ | | Date: _____ | |
| Scope Responsible: | | Scope Responsible: | |
| Printed Name: _____ | | Printed Name: _____ | |
| Date: _____ | | Date: _____ | |
| Interface Agreement Close-Out | | | |
| Originating Interface Coordinator: | Responding Interface Coordinator: | | Consultant's Tech. Interface Manager Approval: |
| Printed Name: _____ | Printed Name: _____ | | Printed Name: _____ |
| Date: _____ | Date: _____ | | Date: _____ |

SECTION 4 - HEALTH AND SAFETY MANAGEMENT

4.1 SCOPE

This section: 1) establishes Company's requirements for Consultant to implement a systematic approach to health and safety management on the Project, and 2) provides Consultant with Company's minimum requirements and expectations related to each Contractor's implementation of a systematic approach to health and safety management on the Project.

4.2 OBJECTIVES

4.2.1 Expectations

- A. Company is committed to providing a safe and healthy workplace for its employees, Consultant Personnel, Contractor Personnel, Suppliers and the general public. Safety is Company's #1 priority and it is one of Company's seven (7) core values. Company is committed to "Zero Harm – Nobody Gets Hurt" and believes this is both achievable and sustainable, while each individual Project team member has a personal responsibility for safety. These commitments are reflected in Company's internal responsibility system depicted in Figure 4.1.
- B. Company 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. Company believes sound health and safety performance is fundamental to successful business performance. It is therefore Company's requirement and expectation that everyone associated with the Company shall play their part in the implementation of its occupational health and safety management strategy, performing at the highest possible levels, and foster continuous improvement in the areas of health and safety. Company believes that achieving its safety commitment of "Zero Harm – Nobody Gets Hurt" requires the, Contractors, and Suppliers is only attainable from proactive health and safety management by Consultant at the work-face level.
- C. Lower Churchill Project - Occupational Health and Safety Policy (MSD-HS-001) contained in Exhibit 6 reflects Company's commitment to safety. Consultant shall subscribe to this commitment throughout all phases of work and relentlessly pursue an objective of an injury and illness free workplace by:
 - Not compromising their focus on safety to achieve other business objectives;
 - Actively caring for Consultant's workers and the public;
 - Taking personal responsibility for safety; and
 - Promoting and recognizing safe behaviour exhibited by workers.

Figure 4.1 – Company’s Internal Responsibility System



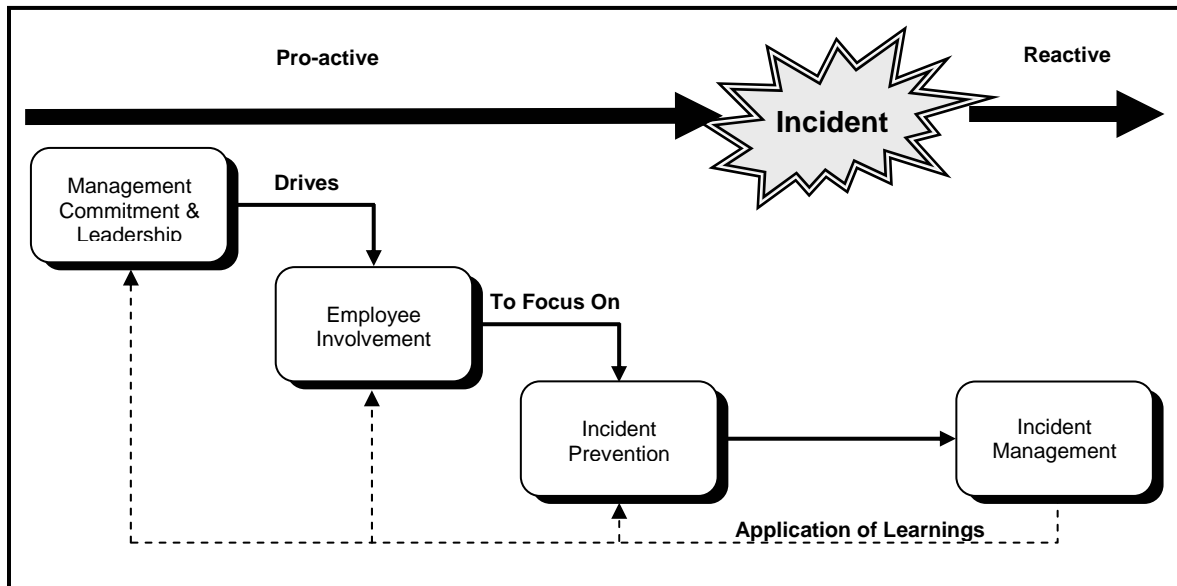
4.2.2 Health and Safety Management Systems

- A. Consultant is required to demonstrate its ability effectively manage safety on the Project such that Company’s commitment of “Zero Harm - Nobody Gets Hurt ” is achieved.
- B. Consultant shall implement a health and safety management system for the Project consistent with the principles of ISO 18001:2007 or CSA Z1000:2006 and based upon Consultant’s existing corporate health and safety management system.
- C. Company’s health and safety management approach has a foundation rooted in a proactive culture focussed on preventative measures, while having the ability

to respond to incidents should they occur. In the simplest of terms, Company believes that management commitment and leadership drive worker involvement to focus on incident prevention processes. In the event that an incident does occur, the learnings shall be applied to continuously improve. Figure 4.2 illustrates this concept. Company requires Consultant, Contractors, and Suppliers to adopt a similar systematic approach to health and safety management. This systematic approach predicated upon:

- Management involvement, leadership, and commitment;
- Getting line supervisors and workers actively involved in health and safety management;
- Significant safety and technical resources to support Consultant’s health safety management plan and site health and safety plans for the Project; and
- Dedication and persistence.

Figure 4.2 – Company’s fundamental approach to safety management

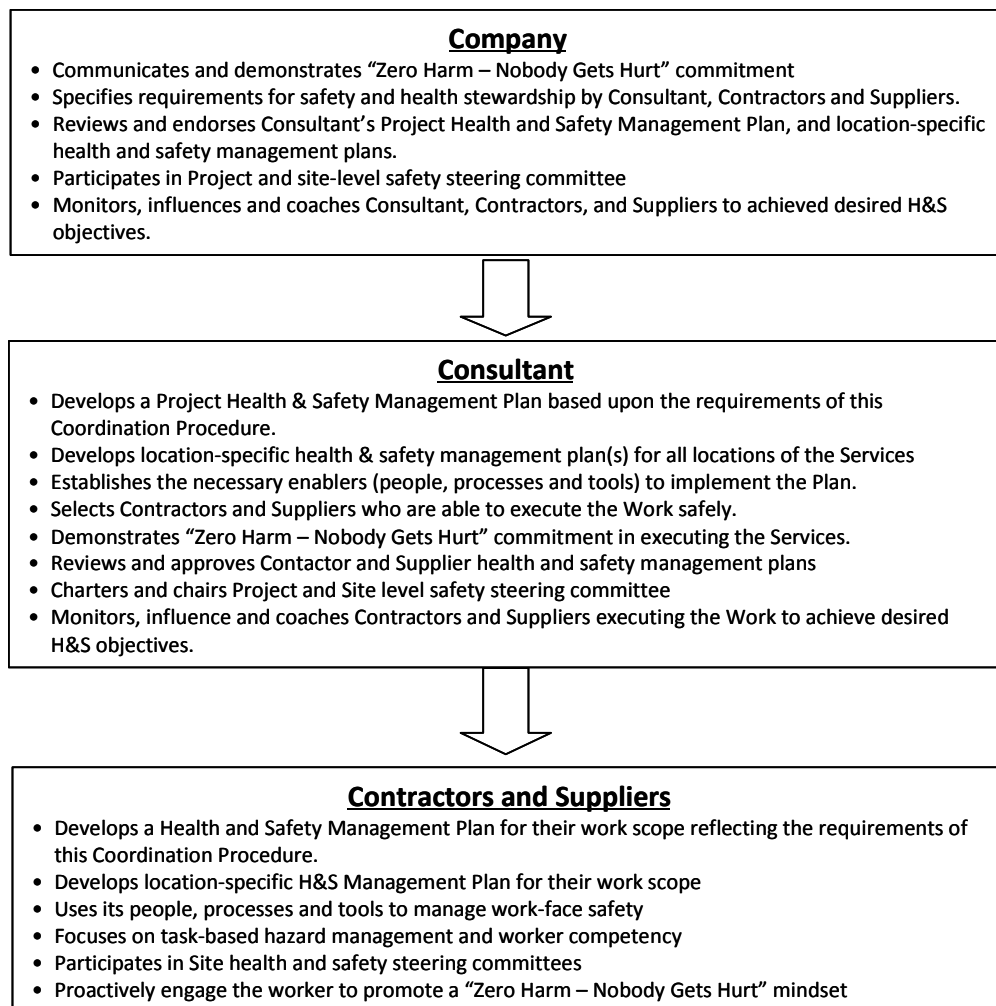


4.2.3 Overview of Company/Consultant/Contractor and Supplier Roles

- A. Figure 4.3 describes the health and safety management relationships between Company, Consultant, Contractors, and Suppliers. Consultant is responsible for Project level health and safety management of the Work, while Consultant shall be responsible for health and safety management at the Project’s Work locations and the Site, including oversight of health and safety management activities of both Contractors and Suppliers.

- B. Company shall influence, monitor, and coach Consultant at Company’s sole discretion to leverage Company’s health and safety management expertise and to ensure that Consultant has the guidance necessary to position them for success.
- C. Company reserves the right to supplement the health and safety management effort of Consultant, and to influence, monitor, and coach Consultant’s Personnel at Company’s sole discretion. Consultant shall work with Company in this capacity and shall support Company’s desire to positively influence health and safety management.
- D. Company’s role in health and safety management in no way relieves Consultant, Contractors, or Suppliers of their health and safety management responsibilities.

Figure 4.3 – Health and safety management roles and responsibilities



4.3 CONSULTANT DUTIES

- A. Consultant shall place the highest priority on safety and health while performing the Services. Consultant is solely responsible for providing and maintaining a safe working environment for Consultant's agents, employees, Subcontractors, the public, Company, and other third parties involved in providing the Services.

- B. Consultant shall not permit nor tolerate an unsafe or unhealthy condition or activity over which it has control. Consultant shall immediately inform Company of any unsafe or unhealthy condition or work practice of which it becomes aware but over which it has no authority to correct.

- C. Within the time specified in Table 1.1 of Section 1, Consultant shall submit to Company a Project Health and Safety Management Plan that encompasses the Services provided by the Consultant and the Work. To the extent possible, the Project Health and Safety Management Plan shall be based upon the Consultant's existing health and safety management system, but must also meet the requirements of ISO 18001:2007 or CSA Z1000: 2006. Company shall review the draft plan and provide written comments to Consultant. Consultant shall make clarifications and upgrades and shall re-issue the for Company's approval. Consultant shall present subsequent upgrades of the plan to Company for approval.

- D. Consultant is responsible for implementing, resourcing, and periodically verifying the Project Health and Safety Management Plan. Consultant shall provide Company with an implementation schedule for the plan and with an update provided on a quarterly basis.

- E. As discussed in Section 4.6, Consultant is responsible to develop, implement, resource, and periodically verify a health and safety management plan for each specific location of the Services and the Work that includes any of the following activities:
 - Engineering
 - Design
 - Procurement
 - Fabrication
 - General construction
 - Underground Work
 - Installation
 - Transportation
 - Start-up
 - Completions

4.4 COMPANY DUTIES

Company has determined the appropriate stewardship approach for each nominated Site as detailed below. Consultant shall reference the appropriate section in this Coordination Procedure to understand Company’s expectations for each Site Health and Safety Management Plan. Consultant shall ensure that its Site team, Contractors and Suppliers clearly understand the expectations of Company.

Table 4.1 identifies the guidelines to be utilized by Consultant and Company in making the stewardship determination.

Table 4.1 – Stewardship approach selection guidelines

| Level | Deciding Principals | Stewardship Approach | Site Health and Safety Management Plan Requirements |
|-----------------|--|--|--|
| <p>1</p> | <p>A. Activity performed on Company or Consultant property or right-of-way, or B. Mobile resource specifically selected by Consultant for essentially 100% dedication to a project activity</p> | <p>Control and oversee implementation of location specific health and safety management plan with support from Company, on Company property or right-of-way. Measure and report safety metrics to Company.</p> | <p>See Section 4.6</p> |
| <p>2</p> | <p>A. 3rd party locations with sufficient Consultant resources to influence health and safety management, or B. 3rd party locations involving scenarios or activities which have the potential to adversely affect cost, schedule, public image, or safety of Consultant or Company Representatives, or C. 3rd party with whom Consultant or Company intends to develop a long term business relationship, or</p> | <p>Influence with Consultant presence and oversee implementation of a location-specific health and safety management plan. Measure and report safety metrics to Company.</p> | <p>See Section 4.6</p> |

| | | | |
|----------|--|--|-----------------|
| | 3 rd party sites where Consultant utilizes essentially 100% of a Site's capacity or essentially 100% of a segregated portion of the overall Site. | | |
| 3 | <p>A. Subcontractor or Supplier activities not included in Level 1 or 2, or</p> <p>B. Engineered work packages not included in Level 1 or 2</p> | Influence health and safety when feasible and as requested by Contractors / Suppliers. Measure and report safety metrics to Company for utilization in establishing future business relationships. | See Section 4.7 |

For purposes of this Agreement, the following stewardship levels (and associated site-specific health and safety management plan requirements) shall apply:

| <u>Location</u> | <u>Level</u> |
|-----------------------|--------------|
| Field | 1 |
| Engineering office(s) | 2 |
| Manufacturing sites | 3 |

All other locations to be determined by Company (with appropriate input from Consultant) before work commences at those locations.

Company reserves the right to support Consultant's development and implementation of the Project Health and Safety Management Plan at Company's sole discretion. Company shall have the right, but not the obligation, to periodically inspect Consultant's operations for the purpose of monitoring Consultant's compliance with the requirements of this Coordination Procedure. Furthermore, such inspections shall not diminish Consultant's complete responsibility for overall health and safety management on the Project. Company shall also have the right, but not the obligation, to periodically inspect the Subcontractors', Contractors' and Suppliers' operations for the purpose of monitoring compliance with the requirements of this Coordination Procedure.

If Company is made aware of a failure of Consultant to comply with this Coordination Procedure which does not create an imminently unsafe condition, Company shall have the right to notify Consultant of such failure and to direct Consultant to abate such condition as soon as possible. If Consultant fails to comply within a reasonable period, then Company shall have the right to stop, at no cost to Company, all Services being

performed by Consultant and such Services shall not be restarted until Consultant has abated the failure to comply.

4.5 SPECIFIC REQUIREMENTS FOR PROJECT HEALTH AND SAFETY MANAGEMENT PLAN

4.5.1 Communication of Expectations

- A. The Project Health and Safety Management Plan shall identify the means that Consultant shall communicate Company's and Consultant's expectations to their Site teams and all Personnel.
- B. Consultant shall facilitate kickoff meetings as required to:
 - Communicate safety policy, expectations, objectives, and desired results
 - Promote alignment, teamwork, and ownership
- C. Consultant shall facilitate alignment sessions for the following groups:
 - Consultant's management team for the Project
 - Contractor's management teams for the Work
 - Site teams
- D. Consultant shall participate in Site team kickoff meetings prior to commencement of Work scopes at each Site. The audience of such kickoff meetings may include Site management, supervisory Personnel, and workers.
- E. Site teams shall inform Company of the dates of alignment sessions and kickoff meetings no later than fifteen (15) calendar days prior to their commencement. Company reserves the right to participate in alignment sessions and kickoff meetings at Company's sole discretion.
- F. Consultant shall host orientations for all Personnel at all locations which shall include a review of Company's safety expectations for the Project.

4.5.2 Demonstration of Management Commitment and Leadership

- A. Consultant shall charter a Project level management safety steering team that includes members from Consultant, Contractors, Suppliers and Company. Consultant shall provide Company and Contractors with a draft charter no later than ninety (90) calendar days from Agreement award. Consultant shall facilitate at least one (1) meeting per quarter. Consultant shall inform Company

and Contractors of the dates of the meetings no later than thirty (30) calendar days prior to their commencement.

- B. Consultant's Project Health and Safety Management Plan shall include a description of how Consultant's management team shall actively participate in both Project and Site health and safety management activities. Consultant's Project Health and Safety Management Plan shall include a description of how Consultant's representatives shall influence, monitor, and coach site teams.

4.5.3 Safety System Resources

- A. Consultant's Project Health and Safety Management Plan shall identify Consultant resources (Personnel, equipment, consumables, etc.) required to support Project level health and safety management, taking care to specify those resources that shall be specifically provided by Site teams.
- B. Consultant's Project Health and Safety Management Plan shall include:
- A Project level safety organization chart;
 - High level, Project specific roles and responsibilities for Consultant resources, including accountabilities and qualifications;
 - Detailed, Project specific roles and responsibilities for each Consultant safety process; and
 - Interface roles and responsibilities between Consultant, Site teams, Contractors and Suppliers by use of responsibility-assignment matrices.

4.5.4 Selection of Contractors and Suppliers

- A. Consultant's Project Health and Safety Management Plan shall identify Consultant's selection criteria for selecting Contractors and Suppliers to perform the Work. The selection of Contractors and Suppliers who are able to execute their Work scope in a safe manner is a key health and safety management expectation. Consultant shall address safety performance Contractors and Suppliers by utilizing a structured selection process that addresses the following considerations:
- Adequacy of Contractors'/Suppliers' health and safety management systems, plans, processes, and procedures;
 - Maturity of Contractors'/Suppliers' health and safety management culture;
 - Recent experience with Contractor / Supplier;
 - Similar work scope experience;
 - Historical safety performance (including recent trends);

- Willingness of Contractor / Supplier to make system and cultural improvements prior to the commencement of the Work;
 - Contractors' / Suppliers' ability and willingness to adequately address hazards identified in the Project-level hazard and risk management processes;
 - Contractors' / Suppliers' ability and willingness to provide resources to the Site Health and Safety Management Plan development and implementation process; and
 - Contractors' / Suppliers' ability and willingness to execute the Work scope in a safe manner while working within the parameters of this Coordination Procedures, applicable statutory regulations, and relevant Project agreements.
- B. Consultant must look beyond historical safety performance (trailing safety performance measures) when selecting potential Contractors and Suppliers for the Work. In many cases, safety performance comparisons between Contractors / Suppliers are not equivalent due to the following considerations:
- Variable cultural, social, and regulatory philosophies/drivers;
 - Variable injury classification definitions;
 - Variable policies/drivers for case management and injury/illness classification; and
 - Failure to follow generally accepted record keeping guidelines.
- C. For those situations where Contractors or Suppliers with inadequate safety performance must be utilized, Consultant shall provide the appropriate level of resources and a written plan to improve such Contractors' / Suppliers' safety performance. Company reserves the right to review and comment on the plan, and where deficiencies are identified to request alternative actions be implemented.

4.5.5 Safety Training

- A. Consultant's Project Health and Safety Management Plan shall identify required Project level safety training for Consultant and Site teams. Consultant shall address the following considerations for Project level safety training:
- Evaluation of training needs, including regulatory requirements and Newfoundland and Labrador content issues;
 - Development of an implementation plan, including required resources and timing;

- Documentation of training;
- Periodic assessments of effectiveness; and
- Refresher training.

4.5.6 Incident Management Requirements

- A. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall manage incidents that occur.
- B. The Consultant is responsible for the following:
- Verbal and written notification to Company by the next calendar day;
 - Verifying that the injured party receives adequate care and that the appropriate level of case management has been performed by Consultant's Site teams;
 - Verifying that injuries are classified according to the Company guidelines and as per appropriate regulations;
 - Verifying that the incident has been fully investigated and that the root cause and contributing factors have been identified and communicated to the appropriate Personnel; and
 - Sharing incident learnings across Consultant's Site teams.

4.5.7 Measurement and Reporting of Performance

- A. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall measure, assimilate, and report Project and site level safety performance to Company. Consultant shall report leading and lagging safety performance to Company electronically on a monthly basis no later than seven (7) calendar days after the close of the month. Section 4.8 provides guidance on incident recordability classification.

Leading indicators to be reported shall include:

- | | |
|--|---|
| <ul style="list-style-type: none"> ▪ Worksite inspections completed ▪ Daily tool box meetings completed ▪ Weekly safety meetings held ▪ Number of items identified at safety meetings and number corrected | <ul style="list-style-type: none"> ▪ Safe Workplace Observation (SWOP) Cards or equivalent reports ▪ Orientations conducted ▪ Task Based Risk Assessments (TBRA) or Job Safety Analysis (JSA) completed ▪ Management site visits ▪ Training sessions conducted ▪ Near misses reported |
|--|---|

Lagging indicator measures to be reported include:

- High potential near misses
- Occupational illnesses
- Restricted duty injuries
- Vehicle accidents
- First aid cases
- Recordable injuries
- Lost time injuries
- Medical aids
- Environmental incidents

Lagging indicator measures shall be calculated per 200,000 work hours using the reporting guidelines, which are included in Section 4.8.

4.5.8 Verification of Safety System and Plans

- A. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall periodically verify that the plan has been implemented as planned, is effective, and is continually improving.
- B. Consultant shall develop, resource, and implement a structured assessment process to ensure that the plan has been fully implemented, is effective, and provides site teams with adequate guidance.
- C. Consultant shall perform at least two (2) such assessments per year. Consultant shall participate in selected site health and safety management plan assessments to accomplish this objective. Consultant shall inform Company of the dates of the assessments no later than fifteen (15) calendar days prior to their commencement. Company reserves the right to participate in selected assessments at Company's sole discretion. Consultant shall capture findings, recommendations for improvement, and learnings and shall track such topics to resolution. Consultant shall provide Company with an updated copy of the tracking list no later than fifteen (15) calendar days from the completion of each assessment. Consultant shall upgrade and reissue the Project Health and Safety Management Plan when high impact learnings are identified and resolved.
- D. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall verify that each Site safety plan, including its associated safety processes, has been implemented as planned, and that they are effective, achieving their intent, and continually improving.
- E. Consultant shall verify that all Work specific safety deliverables have been developed and received and that all safety services have been completed prior

to commencement of the Work at each respective Contractor or Supplier. Consultant shall participate in the Site safety plan assessments performed by each Site team. Consultant shall address corrective action when Site teams deviate from established safety guidelines.

- F. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall verify safety readiness prior to asset handover or transition to another project phase.

4.5.9 Continuous Improvement

- A. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall capture project learnings and best practices. Consultant shall continually capture learnings and best practices over the course of the Project. Consultant shall capture learnings electronically, preferably in a database format, for ease of distribution. Consultant shall capture learnings through formal learnings workshops at the Project-level and through the assimilation of Site level learnings from Site teams.
- B. Consultant shall facilitate at least two (2) formal Project level learnings workshops each year and shall actively participate in the learnings workshops facilitated by each Site team. Company reserves the right to participate in learnings workshops at Company's sole discretion. Consultant shall inform Company of the dates of such events no later than fifteen (15) calendar days prior to their commencement. Consultant shall provide Company with an electronic copy of the results of such events within fifteen (15) calendar days of their completion. Consultant shall disseminate high impact learnings to Site teams as they are captured.
- C. Consultant's Project Health and Safety Management Plan shall identify how Consultant shall prepare a Project-level final health and safety performance report.
- D. Consultant shall develop and forward to Company an electronic copy of a Project level final health and safety report no later than sixty (60) calendar days from the completion of the Project. This report must include the following, at minimum:
- Summaries of the Project Health and Safety Management Plan and each Site Health and Safety Plan;
 - Evaluations of the effectiveness of the Project Health and Safety Management Plan and each Site Health and Safety Plan;

- Project and site level health and safety performance results -- leading and trailing indicator measures;
- Project and site level safety learnings and best practices;
- Summaries of Project incidents; and
- Evaluations of each Site team's overall safety performance.

4.5.10 Other System Requirements

Consultant's Project Health and Safety Management Plan shall identify how:

- A. Consultant shall manage strategic emergency response at the Project level and how Consultant shall verify that site teams have developed and implemented effective tactical emergency response plans.
- B. Consultant shall manage Project level changes that could potentially affect health safety at the Site.
- C. Consultant shall identify the requirement for each Site team performing Work on Company property or right-of-way (level 1 stewardship) to utilize Company's Substance Abuse Prevention Policy (ON HOLD).

4.6 SPECIFIC REQUIREMENTS FOR LEVELS 1 AND 2 LOCATION-SPECIFIC HEALTH AND SAFETY MANAGEMENT PLANS

4.6.1 General Requirements

- A. For all levels 1 and 2 locations of the Services and the Work, the Consultants is responsible for the development and documentation of a health and safety plan specific to the work locations (a location specific health and safety management plan). Company reserves the right to support Consultants development of these location specific health and safety management plans at Company's sole discretion.
- B. Consultant shall provide Company with a draft copy of any location specific health and safety management plan no later than sixty (60) calendar days prior to commencement of Work at that location. Company shall review the draft and provide written comments to Consultant within fifteen (15) calendar days from receipt. Company shall request clarifications and upgrades to ensure completeness. Consultant shall make clarifications and upgrades, and shall issue

the plan for use within fifteen (15) calendar days of receipt. Company shall endorse the updated location specific health and safety management plan upon receipt. Consultant shall present subsequent upgrades of the location specific health and safety management plan to Company for endorsement.

- C. Consultant is responsible for the implementation of the location specific health and safety management plan. Consultant shall provide Company with implementation milestones for the plan and with an updated implementation schedule on a monthly basis. Company reserves the right to support Consultant's implementation of the plan at Company's sole discretion.

4.6.2 Management Expectations

Each location specific health and safety management plan shall:

- A. Identify the means that Consultant's Site team shall communicate safety expectations to onsite Project Personnel.
- For level 1 Sites, Consultant, shall facilitate kickoff meetings for Site management, Site supervisors, and the workers to:
- Communicate safety policy, expectations, objectives, and desired results;
 - Promote alignment, teamwork, and ownership; and
 - Provide a high level rollout of the Site Health and Safety Plan and the associated safety processes.
- B. Outline how Consultant's Site team shall demonstrate commitment and leadership in health and safety management to Site personnel, including a description of how Consultant's Site team shall actively participate in health and safety management activities (safety walkthroughs, safety assessments, kickoff meetings, etc.).
- C. Charter a management level site safety steering team. For level 1 Sites, Consultant shall facilitate a management level site safety steering team and provide Company with a draft charter no later than sixty (60) calendar days prior to site mobilization. Consultant shall facilitate at least one (1) meeting per month and shall inform Company of the dates of the meetings no later than fifteen (15) calendar days prior to their commencement.
- D. Outline how Consultant's representatives at the specific location of the Services and the Work shall influence, monitor, and coach Site Project Personnel, including a description of how Consultant's Personnel shall actively participate in

specific location health and safety management activities (safety assessments, onsite monitoring, etc.).

- E. Identify Consultant’s resources (Personnel, equipment, consumables, etc.) required to support Site health and safety management, taking care to specify those resources that shall be specifically provided by others.

For each location specific health and safety management plan, Consultant’s shall develop:

- A location specific safety organization chart;
- High level, location specific roles and responsibilities for Consultant’s resources, including accountabilities and qualifications;
- Detailed, location-specific roles and responsibilities for each Consultant’s safety process; and
- Interface roles and responsibilities between Consultant, Contractors and Suppliers by use of responsibility-assignment matrices.

4.6.3 Selection of Key Program Elements and Safety Initiatives

Each location specific health and safety management plan shall:

- A. Identify the key program elements that shall be utilized to drive safety performance. Table 4.2 (included for informational purposes) includes those safety elements that are most important to success. Management commitment and worker participation have been identified as the two most effective elements.

Table 4.2 – Safety Elements in Location Specific Health and Safety Management Plan

| ELEMENT | DESCRIPTION |
|--------------------------------|--|
| Management Commitment | Management must convince the worker that safety is a value through visible, active participation and by providing resources. |
| Workforce Participation | All Personnel must actively participate in the safety effort to promote understanding, ownership, and commitment. |
| Effective Communication | Open & honest communication across all levels of Personnel, supervision, and management must be achieved. The safety processes should reinforce mutual feedback and respect. |
| Positive Reinforcement | Positive reinforcement and constructive feedback should be promoted to make the desired workplace behaviours occur more frequently. |

| | |
|--------------------------------|--|
| Performance Measurement | Leading Indicators should be captured, analyzed, and communicated to indicate how the workforce is "making safety happen". |
| Caring About Workers | Focus should be placed on caring for the worker as an individual. |
| Empowerment | Personnel should be empowered to immediately stop any unsafe behaviours or conditions that they may find. Personnel should correct these unsafe behaviours or conditions as soon as they are identified. |
| Accountability | All Personnel should understand that each individual is responsible for his / her own safety. First line supervision must understand that they are accountable for the safety performance of their direct reports. |
| Competence | All Personnel should be competent to safely perform their daily work activities. |
| Pro-activity | A pro-active approach to the safety effort should be emphasized and practiced. This shall allow unsafe workplace behaviours and conditions to be addressed before they turn into incidents. |
| Hazard Management | A process to systematically identify and address hazards should be utilized. When hazards are identified, steps should be taken to eliminate or reduce exposure by designing in safety, changing or adding Work procedures, requiring additional protective equipment, or raising awareness. |
| Incident Management | If an incident occurs, learnings must be systematically applied to prevent reoccurrence. |
| Continuous Improvement | A continuous improvement mechanism should be implemented to consistently evaluate the mechanisms being utilized to achieve the key safety elements. |

- B. Identify the key safety initiatives that shall be utilized to position the Work location to achieve an injury and illness free workplace. Consultant should consider the following during the planning process:
- Attempt to utilize existing initiatives when they are proven and fit for purpose;
 - Focus on a few highly effective initiatives -- implementing too many initiatives may lead to poor or inefficient results, and the indiscriminate application of safety initiatives should be avoided;
 - Certain initiatives are more effective in mature safety cultures, while others are more effective in less mature or emerging safety cultures;
 - Language and literacy barriers may be an issue with certain initiatives;
 - Focus on initiatives that prompt active participation and effective communication;
 - Focus on initiatives that are inherently positive, rather than those that simply identify safety inadequacies;
 - Use a systems approach to each initiative, identify a process owner for each safety initiative, and steward performance for each safety initiative; and

- Recognize that certain initiatives require more administrative duties than others -- plan safety resources accordingly.

Table 4.3 (included for informational purposes) identifies initiatives that are currently designated as industry best practices. Consultant should choose those initiatives that work best for the specific work location. It is recommended that the Consultant facilitate a lessons learned workshop during the planning phase to capture lessons learned and best practices from previous experiences. Company reserves the right to participate in such workshops at its discretion.

Table 4.3 – Best Practice Safety Initiatives to Achieve Zero Harm

| Best Practices | Management Commitment | Workforce Participation | Effective Communication | Positive Reinforcement | Performance Measurement | Caring About Workers | Empowerment | Accountability | Competence | Pro-activity | Hazard Management | Incident Management | Continuous Improvement |
|--|-----------------------|-------------------------|-------------------------|------------------------|-------------------------|----------------------|-------------|----------------|------------|--------------|-------------------|---------------------|------------------------|
| Management HSE Steering Team | ✓ | | ✓ | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Site Management HSE Teams | ✓ | | ✓ | | | | | | | ✓ | ✓ | ✓ | ✓ |
| Worker Safety Teams | | ✓ | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ |
| Behavioural Observations | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | ✓ | | ✓ |
| Walkthroughs and Inspections | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | | ✓ |
| Short Service Employee Programs | | | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | | |
| HSE Meetings | | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | ✓ | | |
| Task Based Risk Assessments | | ✓ | ✓ | | | | ✓ | | ✓ | ✓ | ✓ | | |
| Step Back 5 x 5 | | ✓ | | | | | | | | ✓ | ✓ | | ✓ |
| Near Miss / Hazard Reporting Programs (SWOP) | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ |
| HSE Suggestions | | ✓ | ✓ | | | ✓ | ✓ | | | ✓ | ✓ | | ✓ |
| Housekeeping Programs | | ✓ | | | ✓ | ✓ | | ✓ | | ✓ | ✓ | | ✓ |
| Slogans and Signs | | ✓ | ✓ | | | ✓ | | | | | | | |
| HSE Recognition | ✓ | | | ✓ | ✓ | ✓ | | | | | | | |
| Celebrity Visits | ✓ | | ✓ | ✓ | | ✓ | | | | | | | |

4.6.4 Selection of Contractors and Suppliers

- A. Each location specific health and safety management plan shall identify how the Contractors and Suppliers shall select their subcontractors to perform the work scope.

- B. Safety is a **core value** at Company and the selection of subcontractors who are able to execute their work scope in a safe manner is a key health and safety management activity. Contractor shall utilize a structured selection process that is in alignment with the selection of Contractors and Suppliers outlined in Section 4.5.4.

4.6.5 Location Specific Safety Training

- A. Each location specific health and safety management plan shall identify required location specific safety training for Consultant's Personnel, supervisory Personnel at the location, and the workers. Consultant shall evaluate and address its location specific safety training needs prior to execution of its work scope through a location specific health and safety training plan. The objective of site level safety training is to ensure that onsite Project Personnel have the knowledge and skills necessary to identify and address hazards that they are expected to encounter in their work environment.
- B. Each location specific health and safety training plan shall address the following considerations:
- Evaluation of training needs, including regulatory requirements and "local content" issues;
 - Development of an implementation plan, including required resources and timing;
 - Documentation of training;
 - Periodic assessments of effectiveness; and
 - Refresher training.
- C. Each location specific health and safety management plan shall identify how Consultant shall apply previous learnings and best practices to the development of their location specific health and safety management plan.

For level 1 work locations, Consultant should facilitate a lessons learned workshop during the planning phase to capture learnings and best practices from previous experiences. Consultant shall inform and Company of the date of the workshop no later than fifteen (15) calendar days prior to its commencement. Company reserves the right to participate in such workshops at Company's sole discretion.

4.6.6 Emergency Response Plans

- A. Each location specific health and safety management plan shall identify how Consultant shall prepare for and manage tactical emergency response at the specific-location.
- B. Consultant shall develop an emergency response plan that addresses:
- Onsite emergency response organization;
 - Detailed roles and responsibilities for the onsite emergency response organization;
 - Identification of potential incidents and associated action plans;
 - Responder and non-responder emergency response training;
 - Drills;
 - Required lifesaving equipment and transportation systems;
 - Muster areas, means to account for Personnel, and associated procedures;
 - Alarms;
 - Notification and reporting;
 - Emergency egress routes; and
 - Internal and external communications.
- C. Define and describe how the location specific emergency response plan integrates with the Project and Company's emergency response program.

4.6.7 Hazard Recognition and Control

- A. Each location specific health and safety management plan shall identify processes that position Consultant, the Site supervisors, and the workers to recognize, and then eliminate or control potential Site hazards.
- B. Consultant shall identify and document in the location specific health and safety management plan the safety processes that shall be utilized at the work location to eliminate or control identified hazards. Consultant shall:
- Utilize existing safety processes when feasible;
 - Utilize safety processes and practices that meet or exceed applicable statutory regulations;
 - Utilize safety processes and practices that meet or exceed Company Standards when existing Standards are inadequate or are not in place;
 - Develop Site specific roles and responsibilities for safety processes; and

- Verify that safety processes are effective prior to utilization.

The following is a listing of health and safety management processes that are currently considered industry best practices. Consultant should choose those health and safety management processes that are applicable to the work location.

- | | |
|--------------------------------------|-------------------------------|
| ▪ TBRA | ▪ work procedures |
| ▪ safety meetings | ▪ permit to work |
| ▪ emergency response | ▪ environmental response |
| ▪ orientation & training | ▪ parallel construction |
| ▪ simultaneous operations | ▪ waste management |
| ▪ hazardous materials management | ▪ fitness for duty |
| ▪ substance abuse prevention program | ▪ new employee program |
| ▪ management of change | ▪ process safety |
| ▪ system turnover | ▪ visitor access |
| ▪ incident management | ▪ industrial hygiene |
| ▪ subcontractor management | ▪ severe weather |
| ▪ ergonomics / human factors | ▪ extended shifts / rotations |
| ▪ maintenance program | |

C. Consultant shall perform (or provide) hazard assessments for each generic task (e.g. river operations, formwork erection, brush cutting). Such assessments shall:

- Identify the steps associated with performing a task;
- Identify the hazards associated with each step;
- Identify the means that the hazards shall be eliminated or minimized;
- Be developed prior to commencement of the overall work scope; and
- Be developed by knowledgeable and experienced Personnel.

Consultant should recognize that as the Work progresses, previously unidentified hazards might be introduced into the specific-location of the Work or the provision of the Services. Consultant should periodically reassess potential hazards that may be introduced into the Work place.

For level 1 Work locations:

Consultant shall facilitate hazard identification sessions during the planning phase to identify and document potential hazards. Consultant should consider including the following when facilitating such sessions:

- A skilled facilitator;

- Experienced construction Personnel, including workers, who are knowledgeable and experienced with the Work;
- Experienced safety representatives (experts);
- Participation from Company representatives;
- Review of results of Project-level hazard management exercises;
- Review of constructability methodologies and engineering/design assumptions; and
- Identification of critical hazards on a priority basis.

D. The following hazards are critical and must be addressed in the location specific health and safety management plan:

- | | |
|--|-----------------------------------|
| ▪ fire | ▪ explosion |
| ▪ dropped objects | ▪ falls from heights |
| ▪ hazardous atmospheres | ▪ electrocutions |
| ▪ drowning / hypothermia | ▪ heat stress/fatigue |
| ▪ hazardous materials | ▪ pinch points/moving machinery |
| ▪ unintended releases of energy (lo/to) | ▪ severe environmental conditions |
| ▪ wildlife management | ▪ confined space entry |
| ▪ movement of large objectives | ▪ working over / near water |
| ▪ flying objects/dropped objects | ▪ high noise |
| ▪ hygiene concerns/occupational illness | ▪ communications barriers |
| ▪ remote work locations | ▪ helicopter lifts |
| ▪ use and storage of hazardous materials | |

E. When hazards are identified, Consultant shall first attempt to eliminate the hazard. When elimination is not achievable, then the hazard should be controlled through:

- substitution
- separation
- behavioral identification
- engineered controls
- administrative controls
- additional protective equipment
- heightening awareness of the hazard

F. Consultant shall identify common safety rules, procedures, and safe work practices to be utilized, including but not limited to:

- confined space entry
- hot work
- electrical work
- overboard work
- fire protection
- work platforms / scaffolding
- material handling
- radiography
- driver and pedestrian safety
- helicopter transportation
- use and storage of hazardous materials
- energy control
- crane operations and rigging
- working at heights
- personal protective equipment
- tools and equipment
- housekeeping
- manual lifting
- pressure testing
- marine transportation
- diving
- eye protection

G. Consultant shall identify the statutory regulations that are applicable to the Work.

4.6.8 Verification of Plans

Each location specific health and safety management plan shall identify how:

A. Consultant shall verify that all safety deliverables have been developed and that all safety processes are in place prior to commencement of the Work.

For level 1 locations:

Consultant shall inform Company of the date of this assessment no later than fifteen (15) calendar days prior to its commencement. Company reserves the right to participate in such assessments at Company’s sole discretion. Consultant shall forward the results of their assessment to Company for endorsement no later than five (5) work days from the completion of the assessment. Company may allow minor omissions or deficiencies to be tracked to resolution by Consultant during the execution phase, but shall require that major omissions or deficiencies be resolved prior to commencement of the Work.

B. Consultant shall periodically verify that the safety processes of each location specific health and safety management plan are effective, achieving their intent, and continually improving. Consultant shall perform an initial assessment approximately thirty (30) calendar days from the commencement of their Services. Company reserves the right to participate in such assessments at Company’s sole discretion.

For level 2 locations:

Consultant shall inform Company of the dates of such assessments no later than (15) calendar days prior to their commencement. Assessments shall be performed every (60) to (90) calendar days. Consultant shall forward the results of their assessments to Company for review no later than five (5) work days from the completion of the assessment. Consultant shall capture findings and recommendations for improvement and shall track such topics to resolution. Consultant shall provide Company with an updated copy of the tracking list no later than (15) calendar days from the completion of each assessment.

- C. Consultant's shall verify safety readiness prior to asset handover or transition to another Project phase. Consultant's shall:
- Identify milestones and interface focal points for transition and/or handover of health and safety management responsibilities to another;
 - Perform a pre-handover health and safety inspection prior to handover of the asset or transition to another project phase and deliver a pre-handover health and safety punchlist to the receiving party prior to formal handover of the asset; and
 - Ensure that Consultant's personnel who may follow the asset into the next project phase have the appropriate safety training and orientation.

Consultant shall inform Company of the dates of their pre-handover health and safety inspection no later than fifteen (15) calendar days prior to their commencement. Consultant shall provide Company with the results of their inspection no later than five (5) work days from the completion of the inspection. Company reserves the right to participate in such inspections at Company's sole discretion.

4.6.9 Incident Management Requirements

Each location specific health and safety management plan shall identify how:

- A. Consultant's shall manage incidents that occur. Consultant's is responsible for the following:
- Verbal and written notification to Company by the next calendar day and to local authorities as required;
 - Providing adequate medical care and follow-up to the injured party;
 - Classifying injuries per Canadian Electrical Association (CEA) criteria (reference Section 4.8);

- Facilitating a comprehensive incident investigation to identify the root cause and contributing factors, including timely communication of the results to onsite project Personnel and Company; and
- Taking immediate measures to prevent reoccurrence of similar incidents.

4.6.10 Measurement and Reporting of Performance

- A. Each location specific health and safety management plan shall identify how Consultant shall initiate and steward site specific leading safety performance indicators to indicate how effectively they are "making safety happen" through their pro-active health and safety management activities. Several examples of typical leading indicators follow:
- Number of Safe Workplace Observation Program (SWOP) cards or equivalent completed;
 - Ratio of leading to lagging indicators;
 - Number of management safety walkthroughs performed;
 - Average housekeeping score; and
 - Average quality of task based risk assessments or job safety analyses.

Consultant shall set aggressive, yet attainable, goals related to leading indicators and shall develop a process to ensure that leading indicator performance is periodically analyzed by the appropriate Personnel (typically Site management and safety teams) and communicated to the workforce in summary form.

Consultant should consider the following when developing leading indicators:

- What do you expect to be your basis for safety success?
- If you do more of it (or do it better) ... shall safety performance improve?
- If you don't steward the leading indicator ... shall safety performance decline?
- Can the leading indicator be measured objectively?

- B. Consultant's shall report leading and lagging safety performance to Company electronically on a monthly basis no later than five (5) calendar days after the close of the month. In addition, Consultant shall communicate safety performance to onsite Project Personnel, preferably on a weekly basis.

Leading indicators to be reported shall include:

- worksite inspections completed
- daily tool box meetings completed
- weekly safety meetings held
- number of items identified at safety meetings and number corrected
- SWOP cards or equivalent reports
- orientations conducted
- task based risk assessments or job safety analysis completed
- management site visits
- training sessions conducted
- near misses reported

Lagging indicator measures to be reported include:

- high potential near misses
- occupational illnesses
- restricted duty injuries
- vehicle accidents
- first aid cases
- recordable injuries
- lost time injuries
- medical aids
- environmental incidents

Lagging indicator measures shall be calculated per 200,000 work hours using the Reporting Guidelines, which are included in Section 4.8.

- C. Each location specific health and safety management plan shall identify how Consultant will capture project learnings and best practices. Consultant should continually capture learnings and best practices over the course of their Services. Consultant shall assimilate all learnings and best practices for inclusion in the Project level final health and safety report.

For level 1 locations:

Consultant shall facilitate at least two (2) formal Project-level learnings workshops (suggested milestones are 50% and 100% complete) over the course of their Services. Consultant shall inform Company of the dates of such events no later than fifteen (15) calendar days prior to their commencement. Consultant shall provide Company with an electronic copy of the results of such events within fifteen (15) calendar days of their completion.

- D. Each location specific health and safety management plan shall identify how Consultant shall prepare a location specific final health and safety report. Consultant shall develop and forward to Company an electronic copy of these reports no later than thirty (30) calendar days from completion of the Work. These reports must include the following:

- Summary of the location specific health and safety management plan;

- Evaluation of the effectiveness of the location specific health and safety management plan;
- Location-specific safety performance results -- leading and trailing indicator measures;
- Location-specific safety learnings and best practices; and
- Summaries of incidents (if any) at the specific location.

4.7 LEVEL 3 LOCATION–SPECIFIC HEALTH AND SAFETY REQUIREMENTS

4.7.1 General Safety Requirements

- A. This section sets forth minimum overall safety requirements that Consultant shall observe and maintain in its performance of Services. The Consultant shall:
- Perform all Services in a responsible manner;
 - Adhere to Company’s objective of performing its activities in a way that protects the workers from injuries and occupational illnesses;
 - Be committed to identifying, reducing and, if possible, eliminating the risk of injury to the worker;
 - Design and maintain facilities, establish management systems, provide training, and conduct operations in a manner that safeguards workers and property;
 - Respond quickly, effectively, and with care to emergencies or accidents resulting from its operations, co-operating with authorized government agencies;
 - Comply with all applicable Laws and regulations and apply responsible Standards where Laws and regulations do not exist; and
 - Undertake appropriate reviews and evaluations of its operations to measure progress and to ensure compliance with applicable safety policies, Laws, and regulations.
- B. For those Sites where Company representatives shall be required to perform onsite activities, Consultant shall, prior to commencement of the Work:
- Provide Company in writing with all existing or potential hazards to which Company Representatives may be exposed to in performing their onsite activities; and
 - Take the necessary actions to ensure that the Company Representatives can safely perform their onsite activities -- the level of safety deemed acceptable is at the sole discretion of Company and shall be defined as those industry

and governmental Standards applicable to similar work scope performed in Canada.

- C. Company reserve the right to meet with Consultant prior to commencement of the Work and during the execution phase to request improvements to verify that Company's onsite representatives can be adequately protected. Consultant and Company also reserve the right to halt the applicable Consultant's operations at their sole discretion until Company onsite representatives can be adequately protected.

4.7.2 Reporting Requirements

- A. Consultant shall provide Company with a safety report each month no later than five (5) calendar days after the close of the month. The safety report shall include the following measures, at minimum:
- high potential near misses
 - occupational illnesses
 - restricted duty injuries
 - fatalities
 - first aid cases
 - recordable injuries
 - lost time injuries
- B. Such measures shall be calculated per 200,000 work hours using the criteria set forth in Section 4.8, Incident Recordability Guidelines.

4.8 INCIDENT RECORDABILITY GUIDELINES

4.8.1 Overview

- A. For those level 1 and level 2 sites where Consultant shall steward health and safety, the basis for incident recordability shall be the Canadian Electrical Association (CEA) injury classification guidelines. Rather than everyone attempting to become an expert on recordability, they should use these guidelines to make an initial determination. If stewardship is still questionable, then contact the Company Representative for assistance.
- B. The ultimate goal is to assure that the injured person gets the right medical treatment, and that Consultant's, Contractor's, and Supplier's safety resources are applied towards accident prevention rather than determining incident classification. In general terms the following are the classification scheme for all

injury types:

- Lost Time Injury is defined as a work related injury for which an employee requires medical attention and is unable to return to work for his/her next scheduled shift.
 - Medical Treatment Injury is defined as a work related injury for which an employee requires medical attention; however, he/she is able to return to work for the next scheduled shift.
 - First Aid Injury is defined as a work related injury which is minor in nature and can be treated at the work site.
- C. The general decision-making process for injury classification typically consists of five steps:
- A. Determine whether a case occurred; that is, whether there was a death, illness, or an injury;
 - B. Establish that the case was work related or resulted from an event or exposure in the work environment;
 - C. Decide whether the case is an injury or an illness; and
 - D. If the case is an illness, record it; or
 - E. If the case is an injury, decide if it is recordable based on a finding of medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

4.8.2 Injury / Illness Classification

- A. Injury/illness shall be classified in accordance to CEA Standard A-2-2007. Generally a recordable injury is any Occupational Injury / Illness that results in an individual experiencing:
 - a) Fatality;
 - b) Lost Time Injury;
 - c) Medical Treatment Injury; or
 - d) Other injury/illness (not captured above), which has:
 - i. Restricted Work; or
 - ii. Significant Occupational Injury/Illness; or
 - iii. Loss of consciousness.
- B. Each injury or illness should be recorded only once and categorized using the above hierarchy. For example, a Lost Time Injury that involves Medical Treatment Injury and subsequent Restricted Work shall be categorized as a Lost Time Injury.

- C. For work-related injury/illness where the signs and symptoms recur or continue in the absence of an exposure for the workplace, the incident is recurred and does not precipitate a new incident.

4.8.3 Definitions

The following definitions shall be used when classifying incidents.

- A. **Fatality** – Any death resulting from an injury/illness regardless of time intervening between injury/illness and death will be reported but no days will be charged to the event.
- B. **First Aid Injury** – An Occupational Injury/Illness that requires first aid treatment only and does not result in loss of time from work. First Aid Injuries include:
- Use of non-prescription medications at a non-prescription strength, including antiseptics;
 - Administration of tetanus or diphtheria shot(s) or booster(s). Other immunizations such as Hepatitis B vaccine or rabies vaccine related to an injury are considered medical treatment;
 - Cleaning, flushing or soaking wounds on skin surface;
 - Use of wound coverings such as bandages including liquid bandages, gauze pads, steristrips or butterfly bandages, etc. Wound closing devices such as staples, sutures and skin glue are considered medical treatment; Use of any hot/cold therapy (e.g., compresses, soaking, whirlpools, non-prescription skin creams / lotions for local relief, etc.);
 - Use of any totally non-rigid, non-immobilization means of support (e.g., elastic bandages, wraps);
 - Use of temporary immobilization devices while transporting an accident victim;
 - Drilling of a nail to relieve pressure or to drain fluid from a blister;
 - Use of eye patches;
 - Removal of foreign bodies not embedded in the eye if only irrigation or removal with a cotton swab is required;
 - Removal of splinters or foreign material from areas other than eyes by irrigation, tweezers, cotton swabs or other simple means;
 - Use of finger guards;
 - Use of massages; and,
 - Drinking of fluids for relief of heat stress.
- C. **Loss of Consciousness** – Is a work-related, altered state of consciousness that can vary from disorientation to time, place or person, to coma. For reporting purposes,

- the Loss of Consciousness must be witnessed or medically substantiated as related to a work activity or exposure.
- D. **Lost Time Injury** – An injury/illness resulting in Lost Days beyond the date of injury as a direct result of an Occupational Injury/Illness incident. A Fatality is not considered a Lost-Time Injury.
- E. **Lost Days** – The number of calendar days that the employee is unable to work beyond the day of injury/illness recommended by a physician or other health care professional. Lost time ends as of the date that the employee is deemed fit to work either full or Restricted Work or to a maximum of 180 calendar days for any individual case. For cases where the disability will continue beyond the closing date, Lost Days and Restricted Days shall be estimated on the basis of medical opinion as to probable ultimate disability and included in the data submission. Lost Days are only recorded for the period that the injured person is in the employ of the company.
- F. **Medical Treatment** – A classification of Occupational Injury/Illness for Medical Treatment beyond First Aid Injury, where there has been no Lost Days. The following are not considered Medical Treatment Injuries:
- Visit(s) to a health care provider limited to observation or counselling or prescribed Restricted Work;
 - Diagnostic procedures (e.g., X-rays, blood tests), including the use of prescription medications solely for diagnostic purposes (e.g., eye drops to dilate pupils).
- G. **Occupational Injury/Illness** – Any injury/illness that arises out of and in the course of employment (i.e., is defined as “work-related”). To meet this work-relatedness criteria, there must have been:
- An event or exposure in the work environment that either caused or contributed to the resulting condition, (e.g., laceration from a trimming knife, dermatitis from exposure to solvents); or
 - An event or exposure in the work environment that has significantly aggravated a pre-existing injury or illness and the aggravation calls for Medical Treatment, days away from work, or Restricted Work activity; and,
 - The event or exposure must have occurred within the reporting period (i.e., calendar year).
- H. **Pre-Existing Condition** – Pre-Existing Condition is a physiological condition that may be the root cause of injury/illness symptoms or may be a contributing factor to a workplace injury/illness (whether it is related to the onset or to the recovery).

- I. **Exceptions to Work-Relatedness** – The following are situations that are not considered to be work-related:
- Being present at the workplace as a member of the general public;
 - Experiencing symptoms that arise in the work environment but are solely due to non-work-related event(s) or exposure(s);
 - Participating in a voluntary wellness program, medical, fitness, or recreational activity;
 - Eating, drinking or preparing food or drink for the employee’s personal consumption;
 - Doing personal tasks outside assigned working hours;
 - Undertaking personal grooming (e.g., shaving), conducting self-medication for a non-work-related medical condition (e.g., allergic reaction to a medication), or intentionally self-inflicting;
 - Experiencing a motor vehicle incident in a parking lot or access road during the work commute (i.e., arriving to or departing from the employee’s normal place of work);
 - Experiencing a common cold or flu;
 - Suffering from a mental illness unless medical opinion states it is induced by a single traumatic work-related event and accepted by a compensation authority;
 - Injury/illness that occurred while the employee has checked into a hotel or motel when travelling on Project business, but the injury/illness occurred during personal activities (e.g., personal recreational activities or detours made for personal reasons including the work commute from the hotel/motel to the work location); or,
 - Injury/illness that occurred while working at home if the employee is doing non-work related activities.
- J. **Restricted Work** – When an individual, due to a work-related injury/illness, is medically determined to be unable to perform one or more routine functions or unable to work the normal time period of their pre-injury/illness work day, they are working in a “restricted” capacity. Routine functions are the work activities that employee regularly performs at least once a week.
- K. **Restricted Days** – The number of calendar days to a maximum of 180 days during which the employee is subject to Restricted Work, based on the recommendation of a physician or licensed health care professional, for an individual case. For cases where the disability will continue beyond the closing date, Lost Days and Restricted Days shall be estimated on the basis of medical opinion as to probable ultimate disability and included in the data submission. Restricted Days are only recorded for the period that the injured person is in the employ of the company.

- L. **Significant Occupational Injury/Illness** – Any injury/illness, that is not recorded as a Fatality, Lost-Time Injury or Medical Treatment Injury, but has been medically diagnosed and determined to be work-related and the cause is a verified trauma or workplace exposure that has extended to be within the current reporting period. Injury examples include: punctured eardrums and fractured or cracked bones. Illness examples might be hearing loss, or respiratory disease.

SECTION 5 - QUALITY MANAGEMENT

5.1 SCOPE

This section establishes Company's quality assurance / control (QA/QC) requirements that will provide assurance that all Consultant's Services, including Engineering Services, Procurement Services, Construction Management Services, and other project management services will satisfactorily meet Company's requirements, and ultimately that the Work will conform to specifications, regulatory requirements, and sound and generally accepted engineering, procurement and construction management practices, including commissioning management and other project management services. In this regard, the following QA/QC requirements are applicable to all Services, and ultimately the Work activities of Contractors and Suppliers.

Additional Quality coordination requirements, over and above requirements stated in this coordination procedure, which are unique to the Consultant's Services and to the Contractors' and Suppliers' scope of Work, may also be identified and included in individual contract documents.

5.2 OBJECTIVES

The following Quality objectives have been established for Consultant's Services:

- That the Services will comply with the Agreement requirements, with all applicable government regulations, statutes, and permitting requirements, and with sound and generally accepted engineering, procurement, and construction management practices and other project management services;
- That the Services will ensure early and proactive identification of process or product failure so as to minimize rework, cost and schedule impacts, and to identify potential failures, opportunities for improvement and best practices so as to prevent problems before they occur;
- That the engineering design is clearly documented and is consistent with acceptable design standards and meets operating performance requirements;
- That the equipment and materials procured and installed for the Project are consistent with the engineering design;
- That construction during the project is carried out in accordance with established construction standards and methods;
- That the Completions activities conform to all procedures and manuals required for those activities;
- That documentation of objective evidence of conformance to the requirements is maintained and recorded during the provision of the Services.

5.3 CONSULTANT'S GENERAL REQUIREMENTS

5.3.1 General

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Provision of quality assurance for Services, consisting of all those planned and systematic activities that are necessary to establish quality requirements and to ascertain with confidence that the Services, and ultimately the Work performed by Contractors and Suppliers will conform to established requirements;
- Provision of quality control for the Services, and the Work of Contractors and Suppliers, consisting of those quality controls, operational techniques, and activities that provide a means of measuring and controlling the characteristics of an item, element, component, product, service, or installation to meet the established requirements;
- Preparation of required control procedures, Quality Plans and inspection and test plans (ITPs) before start of the corresponding part of the Work and have these documents available for Company for review and comment;
- Compliance with Agreement requirements and Quality activities through the application of Quality Plans, in ITPs and control procedures for all phases of the Services and ensure that Contractors and Suppliers have and utilize similar approved plans and procedures;
- Identification of and resolution of deficiencies detected during the provision of the Services, and Contractor's and Supplier's Work;
- Ensuring qualified inputs, qualified resources (personnel, tools, equipment and materials), and qualified work processes are used by Contractors and Suppliers to perform Work in conformance with specifications;
- Ensuring that the degree of Quality planning, level of inspection, procurement of materials and equipment and oversight and verification is driven by criticality;
- Tracking all Quality submittals and maintain a register of status to ensure that submittals are provided, and approved in a timely manner;
- Providing Quality metrics for gauging Quality performance, and report status monthly/weekly as agreed with Company;
- Supporting Company's QA/QC activities related to the Services, and ultimately the Work completed by Contractors and Suppliers;
- Providing Company personnel and designated representatives timely and free access to all Work (materials, equipment, work sites, documents and records) for the purpose of review, inspection, audits and surveillance. Consultant shall ensure that Contractors and Suppliers are also required to provide this right of access.

5.3.2 Organization

The following QA/QC organization requirements shall be fulfilled by Consultant:

- Designation of a Quality manager, empowered by senior management with freedom and authority to manage Quality issues and their resolution, and to oversee the management of Quality project wide, and to correct non-conformances and or adverse Quality trends;
- Defining and staffing overall organization with personnel whose primary responsibilities and accountability is for Quality and to manage and control Quality of the Services;
- Ensuring Quality engineer(s), for design, procurement, construction and Completions phases are engaged to ensure adherence to Quality Plans, ITPs and control procedures;
- Ensuring Quality auditor(s) are engaged to conduct formal internal and external audits on a project-wide basis throughout the applicable phases of the Project execution;
- Ensuring inspection supervisors are engaged to oversee the daily inspection and testing activities associated with procurement, construction and Completions and the daily supervision of qualified field discipline inspectors;
- Ensuring inspection coordinator(s) for procurement and construction phases (inclusive of Completions) to oversee and implement inspection process for Contractor and/or Supplier materials and equipment.

5.3.3 Audit / Assessment

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Developing, implementing and maintaining a Quality audit schedule to ensure periodic verification of compliance with approved Quality Plans, ITPs, and associated control procedures, including those of Contractors and Suppliers;
- Making available to Company all Quality audit schedules, including audits of Contractors and Suppliers;
- Developing and implementing corrective and preventive actions to resolve Quality issues and concerns for all phases of the project. Resolve all non-conformances resulting from audits;
- Detect report and control non-conforming processes and items, including Contractor and Supplier activities;
- Addressing and resolving, to Company's satisfaction, issues identified during Company reviews, audits, surveillance, and inspection and third party reviews and inspections performed on behalf of Company.

5.3.4 Engineering Services

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Preparing design review plan and design verification plan. Conducting design reviews and verification, including independent reviews, to ensure that design requirements are met;
- Performing design control, including establishing design requirements, reviewing design inputs, and reviewing and approving design outputs. Developing design review and approval matrix identifying Consultant and Company participation;
- Maintaining design change control log and conduct reviews by Quality representative for compliance with Quality requirements;
- Ensuring sufficient Quality resources are engaged to monitor and measure process activities;
- Ensuring Contractors and Suppliers have approved Quality Plans and control procedures;

5.3.5 Procurement Services

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Ensuring Contractors and Suppliers selected to execute elements of the Work scope are approved by Consultant prior to commitment;
- Ensuring that applicable Consultant Quality requirements are communicated to Contractor and Supplier and that requirements are implemented;
- Identifying Contractor / Supplier Quality submittals (Quality Plans, control procedures and ITPs) for Consultant review and approval prior to start of work;
- Conducting reviews of procurement documents by Quality personnel for compliance with Quality requirements;
- Ensuring that the extent of Quality activities related to procured materials and equipment is based on a criticality system which defines equipment criticality ratings and provide criticality rating matrix for procured items. Criticality ratings are to be determined by Consultant, in conjunction with Company, prior to commitment;
- Approving manufacturing procedures for major Procured Goods. Include review by Quality Personnel for compliance with Quality requirements.

5.3.6 Construction Management Services

Construction Management Services include Construction Management, as well as Completions Services. The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Planning, specifying, monitoring and coordinating all construction-related activities;
- Assigning a construction quality manager. This position will be responsible for supervising and monitoring the QA/QC activities of all Contractors and Suppliers on site;
- Ensuring Contractors and Suppliers QA/QC plans for construction and installation are prepared and approved;
- Ensuring compliance and consistency with the specifications across all construction Work;
- Ensuring constructability reviews are held to maximize savings and benefits by implementing well coordinated industry best practices;
- Ensuring that construction and installation activities are adequately planned and performed by qualified trained personnel equipped with suitable tools and procedures;
- Ensuring that construction and installation activities are conducted in accordance with drawings, specifications and if required special vendor installation procedures;
- Verifying and documenting the acceptability of construction and installation activities per the Project Completions documentation;
- Ensuring that construction audit plans are developed and a schedule for construction;
- Ensuring Completions activities are conducted as per manuals and procedures.

5.3.8 Inspection & Testing

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Ensuring inspection & testing activities are conducted during the Services in accordance with Contractors' and Suppliers' Quality manuals, relevant codes, standards and ITPs;
- Ensuring inspection coverage levels are developed for each procurement package for materials and equipment;
- Ensuring ITPs shall, as far as practical, follow the normal sequencing of the Work. ITPs shall identify the stages requiring approval, and inspection and testing hold and witness points;

- Ensuring Contractor and Supplier source inspection and field inspection / surveillance is in accordance with Consultant's control procedure(s);
- Conducting pre-production / pre-inspection meetings as applicable to the Work for Contractors and Suppliers providing critical services, material and equipment are conducted;
- Ensuring in-process inspection during fabrication, construction, installation and Completions is conducted and covers all disciplines required to complete critical items;
- Ensuring that equipment and materials that are incorporated into the Work including positive materials identification (PMI) for alloy materials is identified, segregated, controlled, tracked and certified, where applicable;
- Ensuring inspection and testing is supported by documentation generated to provide objective evidence of acceptable Quality and compliance with specified requirements and that those documents are signed and approved by authorized personnel;
- Providing sufficient notification of impending inspection and tests involving Company participation;
- Ensuring inspection activities performed by Contractors and Suppliers are approved by Consultant;
- Ensuring that inspectors do not release any equipment and materials which do not comply with the requirements of the purchase order or cannot be identified with applicable specifications or insufficient data is available to assure compliance, or in the opinion of the inspector, are of unacceptable workmanship.

5.3.9 Quality Documentation and Records

The following QA/QC requirements shall be fulfilled by Consultant for the provision of Services:

- Ensuring all Quality related documentation, including inspection and test records are generated as required by all Quality Plans, ITPs, coordination procedures and contractual requirements;
- Providing and controlling all inspection and test records and associated Quality related documentation, including the collation in relevant sections of dossiers for ultimate hand-over to Company as specified in the Agreement;
- Reviewing and approving dossiers provided by the respective Contractors and Suppliers to ensure that Project Quality requirements have been met.

5.4 CONSULTANT'S SPECIFIC REQUIREMENTS

5.4.1 Consultant's Quality Management System

Consultant shall have a documented and fully functional Quality Management System in place to assure the Quality of the Services. Consultant is not required to submit the Quality Management System for Company approval, but it shall be available to Company representatives for reference during the execution of Quality audits, inspection, testing and surveillance. The Quality Management System shall:

- emphasize building Quality into the Services through the use of documented control processes that incorporate necessary activities to assure Quality;
- be formally documented and in compliance with ISO 9001;
- be supported by an established Quality organization with qualified resources, and formally documented control procedures to effectively administer and implement the requirements;
- produce documentation to demonstrate the Quality of service performed;
- be supported by a functioning audit program in place to provide verification of compliance with all Quality requirements during the service;
- Demonstrate that:
 1. all personnel related to a given work process, understand the respective job requirements;
 2. qualified inputs are utilized in the work processes to produce work products that meet specifications. Quality process inputs include qualified workers, qualified tools, qualified equipment and qualified materials;
 3. work products are in compliance with the specified job requirements through inspection and surveillance;
 4. the extent of inspection and surveillance is commensurate with the risk (cost, schedule or safety risk), and / or the magnitude of any Quality problems that may cause a project disruption;
 5. all re-work is recorded and the cause is identified for all work processes.

5.4.2 Consultant's Plans and Procedures

Within 60 days of award of Agreement, Consultant shall submit Consultant's Project Quality Plan to Company for review and acceptance. As a minimum the Project Quality Plan shall contain the noted sections and comply with the requirements listed below:

- Scope
- Quality objectives
- Definitions, terms and abbreviations

- Organization chart and Quality related roles and responsibilities associated with technical and Quality activities for all Project phases
- Management review of Contracts / purchase orders
- Documentation and Records Management
- Audit planning including Quality audit schedule, to include timing and frequency for Consultant activities and critical Contractors and Suppliers.
- Listing of control procedures required to perform the scope of work (current and to-be-developed)
- The Quality Plan should provide detailed descriptions of:
 1. Responsibilities of Consultant's management related to QA/QC activities;
 2. The systems and procedures Consultant will use to ensure that quality is an intrinsic part of all aspects of the Services and ultimately the Work;
 3. How the work is to be performed, reviews, approvals required and checks/inspection to be conducted, including responsibilities and the timing of the required checks / inspections in the work sequence;
 4. How information, reports and records relating to quality assurance and quality control will flow among the various groups (e.g., design, engineering, purchasing, construction, controls, other Consultants) and Company and how this information will be stored and retrieved;
 5. How Site specific codes and Standards will be analyzed in conjunction with specifications and Consultant's internal standards to ensure that the engineering design will comply with specifications, sound and generally accepted practice, and regulatory requirements;
 6. How procurement documents will be prepared to properly establish Quality requirements with suppliers. Consultant shall have major suppliers prepare a product-specific or service-specific quality assurance plan for their respective scopes of supply;
 7. How potential Contractors and Suppliers will be evaluated/selected to ensure they have the requisite resources, tools, procedures, and quality capabilities to meet established requirements;
 8. How individual ITPs will be prepared for each equipment item or Contractor and Supplier shop that has been assigned a criticality rating. Each ITP shall include a list of the specifications that must be met, describe the tests that will be done to ensure compliance, and identify who will perform the tests. Further, each such plan shall identify inspections and QA/QC steps that will be taken by the Contractor and Supplier in addition to those done by Consultant or Company;

9. How Contractor and Supplier calculations and fabrication drawings will be reviewed for consistency with engineering design and Standards;
10. How records will be maintained to demonstrate that all design, materials, equipment, and construction conforms to established requirements and how and in what form the records will be turned over to Company;
11. How nonconformities, concessions and waivers shall be controlled and resolved including the process that will be used, the personnel responsible for administering the process, and the information flow through Consultant's organization for resolution;
12. How all instruments used for testing and inspection in the work will be properly certified, including positive material identification (PMI) devices, equipment for calibrating instrumentation, hydrostatic test gauges, and the like;
13. The auditing, appraising, sampling techniques, reviews, and reporting Consultant intends to carry out for the service to confirm the effectiveness of the QA/QC activities, and that the QA systems are indeed delivering the quality required;
14. The way Consultant plans to meet requirements for PMI, source inspection, and field quality control including the frequency of testing, the locations where the testing will be conducted (e.g., Supplier, upon receipt at site, following installation), and the type(s) of testing equipment to be used;
15. the requirement for individual Quality Plans to be developed by all Contractors and Suppliers supplying critical materials and equipment including shop fabrication and manufacturers;
16. Control procedures that adequately address the controls required for Quality activities;
17. Acceptance / rejection criteria applicable to the activity and / or approval requirements.

5.5 COMPANY DUTIES

Company shall perform certain QA/QC activities, however the performance of which shall not relieve Consultant of its responsibilities to ensure compliance with Agreement requirements or Consultant's overall responsibility for Quality of the Services and ultimately the Quality of the Work performed by Contractors and Suppliers. Company's QA/QC activities will include, but will not be limited to the following:

- Design reviews – During the provision of Services, Company will perform reviews of Consultant's design, including methods, drawings, calculations, specifications and approvals, and other design documents. Consultant shall provide the

- QA audit - Company will audit Consultant's QA/QC program. Audit scope will include, but not be limited to:
 - (i) review of Consultant's documented QA/QC plans and procedures
 - (ii) random review of Consultant's procurement documents for inspection and specification content
 - (iii) review of Consultant's specific equipment inspection plans in relation to specification requirements and criticality rating assessments
 - (iv) review of inspector's surveillance / non-conformance reports, Consultant's deviation log, procedure approval logs,
 - (v) receipt of inspection discrepancy reports and field inspection reports, and
 - (vi) review of activities undertaken by Contractors and Suppliers
- Source inspection – Company may conduct independent source inspections as the Work progresses. These inspections shall not relieve Consultant of its responsibility related to source inspection. Results of Company source inspections will be made available to Consultant and Consultant shall address and resolve any issues arising from this independent inspection;
- Review and assessment, if so desired, of Consultant and selected Contractor and Supplier Quality Plans, and ITPs prior to start of Work;
- Review and assessment of Consultant's control procedures and audit schedule and monitor compliance. Company will monitor the resolution of any issues raised;
- Participation in design control, including review of design input and design review output;
- Review of equipment criticality ratings and criticality rating matrices prior to procurement;
- Review of procurement documents, including changes, for technical and Quality compliance for critical items prior to issue;
- Participation in selected pre-inspection / pre-production meetings;
- Conducting oversight of Consultant's Quality activities including, but not limited to, Contractor and Supplier inspection activities, field inspection and surveillance activities. Participation in inspection and test stages per approved ITPs;
- Review and approval of non-conformance reports (NCRs) where proposed dispositions do not result in meeting specifications.
- Other reviews as deemed appropriate by Company.

SECTION 6 - PROCUREMENT, CONTRACTING & MATERIALS MANAGEMENT

6.1 SCOPE

This Section contains Company's minimum requirements and procedures for Consultant's procurement, contracting and materials management Services. It encompasses all activities needed to acquire the Procured Goods and Services, contracting, materials management activities such as expediting, transportation of goods purchased, and field materials functions.

6.2 OBJECTIVES

In executing its Services, Consultant shall:

Utilize financially sound and reputable Suppliers and Contractors with proven performance suitable to the needs of the Project,

Ensure that Company's rights and Consultant's obligations under this Agreement are maintained and not limited or adversely affected by the award of purchase orders or Contracts,

Meet all Project schedule and quality requirements by properly managing its procurement processes and monitoring the performance of its Suppliers and Contractors,

Standardize on manufacturers for the equipment and materials purchased for the Work, and

Optimize the scope and timing of Supplier site support and spare parts purchases to minimize their life cycle cost.

Purchase materials in a manner that minimizes surplus while eliminating shortages.

6.3 CONSULTANT'S DUTIES

6.3.1 In executing its Procurement activities, Consultant shall:

- A. Develop strategies and plans for using Newfoundland and Labrador Contractors and Suppliers to meet Project objectives,
- B. Consider using, as appropriate, Consultant's and Company's existing contracts to meet cost and schedule objectives,

- C. Develop contractual documents that accurately describe the Procured Goods being purchased and the terms under which such purchases are made,
- D. Identify principal procurement interfaces and develop work plans to achieve effective execution of the Work interfaces between Consultant and its Suppliers and Contractors as well as those interfaces with Company's Other Consultant(s) and Contractors,
- E. Monitor Contractors and Suppliers to ensure that quality, cost, technical and schedule objectives are being met, and
- F. Keep Company informed of Consultant's ongoing procurement activities to maintain alignment with Company. Consultant shall highlight all problem areas and describe actions being taken to resolve.

6.3.2 With respect to Purchasing activities for the Work, Consultant shall:

- A. Prepare, submit for Company review and endorsement, maintain, and implement an Overall Purchasing Plan for execution of the Work,
- B. Assume responsibility for early purchasing activities initiated by Company before award of Agreement,
- C. Prepare, submit for Company review and endorsement, and implement Individual Purchasing Plans for major and critical purchases as required by this Coordination Procedure,
- D. Purchase equipment and material on behalf of the Company,
- E. Use an integrated materials management system to generate procurement documents and track the status of procurement activities through engineering, purchasing, fabrication, shipment through delivery to final destination,
- F. Award purchase orders that include pricing and terms for spare parts and technical services as applicable, and
- G. Prepare and maintain requisition and purchase order registers that include pertinent data such as requisition numbers, purchase order numbers, type, scope, execution milestones (dates for inquiries, awards, and deliveries), values, revisions, etc. These shall not contain cost information for lump sum portions of the Work.

6.3.3 With respect to Contracting activities for the Work, Consultant shall:

- A. Prepare, submit for Company review and endorsement, maintain, and implement an Overall Contracting Plan for the Work,
- B. Prepare, submit for Company review and endorsement, and implement Individual Contracting Plans for major Contracts as required by this Coordination Procedure,
- C. Award and administer Contracts and provide support to Contractors when required, and
- D. Review and endorse the contracting activities of its Contractors, where required, to ensure compliance with requirements of the Work.

6.3.4 With respect to Materials Management activities for the Work, Consultant shall:

- A. Prepare, submit for Company review and endorsement, maintain, and implement a Materials Management Plan for the Work,
- B. Implement and use an integrated materials management system to track materials and equipment throughout the entire procurement chain (from issuance of requisitions by engineering through purchase, receipt of Supplier data, release to Supplier for fabrication, fabrication, equipment delivery, transport to final destination, receipt by end users),
- C. Support construction planning activities by working with construction to establish realistic and achievable delivery dates for equipment and materials purchased for the Work. The delivery dates will be compatible with the construction sequence and schedule,
- D. Prepare and maintain, as part of its expediting activities, a central register of Suppliers drawings and data, with those items requiring review and/or approval by Consultant and/or Company clearly identified,
- E. Provide continuous on-going review of the status of all purchase orders and report the status by issuing appropriate reports,
- F. Provide field materials management services,

- G. Properly store and preserve all equipment and materials received to maintain the validity of all warranties and to prevent damage, and
- H. Develop and implement strategies that provide cost effective disposal of any Company owned surplus materials at the end of the project.

6.4 COMPANY'S DUTIES

- A. Review and approve Consultants plans, procedures, documents and recommendations in support of overall Project objectives,
- B. Identify Company's agreements and preferred and/or acceptable Suppliers and Contractors that could be used for the Work,
- C. Provide instructions regarding spares and other materials for the Work listed as being of special interest to Company, and
- D. Approve purchase orders and Contracts issued by Consultant on Company's behalf.

6.5 SPECIFIC REQUIREMENTS

6.5.1 Requirements specific to Purchasing are as follows:

6.5.1.1 Consultant's Overall Purchasing Plan

Consultant shall submit its Overall Purchasing Plan for Company's review, within the time specified in Table 1.1 of Section 1 but before the first inquiry is issued. The Overall Purchasing Plan shall explain Consultant's main purchasing methods and strategies and how Consultant will execute Purchasing to achieve Project objectives. The Overall Purchasing Plan shall be comprehensive and explain the purpose and relationship of the various plans, processes and procedures described in it.

Contents of Overall Purchasing Plan

Consultant's Overall Purchasing Plan shall include at least the following information:

- a. Preliminary Project equipment list based on the Scope of Services,
- b. Schedule for all purchasing activities (e.g., receipt of requisitions, issue of inquiries, placement of orders, etc.),
- c. Process for fast-track commitments,

- d. Describe Consultant's needs for Supplier data and its plan for acquisition of the Supplier data,
- e. Identify items requiring Supplier assistance for receipt at the Site, installation, start-up and/or operator training and the method of obtaining such assistance for use by Consultant and Company,
- f. List of inquiries and purchase orders initiated by Company prior to Agreement award and a process to assign these to Consultant, transition them into Consultant's system and for Consultant to complete the purchasing activities. Consultant shall provide a responsibility matrix showing the activities required and the responsible party,
- g. Consultant's plan to identify and use Newfoundland and Labrador Contractors and Suppliers in executing the Work,
- h. Consultant's plan to implement the Project Impact Benefits Agreement (IBA),
- i. Guidelines for communicating with bidders to maintain the integrity of the bid process,
- j. Proposed purchase order documents with terms and conditions,
- k. Consultant's purchasing procedures,
- l. Strategy for standardization of equipment and materials, as required,
- m. Strategy for purchasing spare parts based on criticality of the parts, lead time, availability and Company's inventory principles,
- n. Critical Items List
 - 1. Consultant shall prepare and include with its Overall Purchasing Plan a list of items that it considers to be of prime importance to the successful completion of the Project (hereinafter referred to as 'Critical Items'),
 - 2. Company shall review and include additional items to Consultant's list, as required. All Purchasing activities, including award recommendations and purchase orders, in respect to these Critical Items shall be subject to review and endorsement by Company.

- o. Proposed use of Consultant and/or Company Supplier agreements including:
 - 1. Market testing to verify competitiveness of potential use of agreements,
 - 2. Comparison of Company's and/or Consultants agreements,
 - 3. Consultant's choice of agreements to be used,
 - 4. Estimate of benefits (savings, reduction in schedule, etc.) by using agreements, and
 - 5. Establishing appropriate alignment with such Suppliers.
- p. Process for identifying type and quantities of bulk material required for the Work and Consultants plan for purchasing these materials,

6.5.1.2 Individual Purchasing Plans

- q. Consultant shall prepare and submit, as requested, its Individual Purchasing Plans for Critical Items for Company's review within the time specified in Table 1.1 of Section 1. Purchasing releases against existing agreements will not require individual plans if the original agreement already has one,
- r. Consultant shall submit Individual Purchasing Plans to Company at the earliest opportunity and in time to permit adequate analysis, distribution and review by Company prior to requesting proposals. Company shall endorse Individual Purchasing Plans for Critical Items before issuance of the inquiry package,
- s. Individual Purchasing Plans shall include a list of proposed bidders. A brief description of any issues or special considerations for each bidder will also be included,
- t. Consultant shall integrate Individual Purchasing Plans with the overall schedule requirements to the extent possible. Consultant will also identify any potential schedule risks, their probable causes, and any steps to be taken to mitigate such risks for delivery assurance,
- u. Individual Purchasing Plans shall address any technical issues that may influence the selection. Such issues may include technical preferences, the use of new technology, testing and documentation requirements, and differences between Suppliers,

- v. The level of detail for each Individual Purchasing Plan will be commensurate with its criticality and the order value. Each individual plan prepared by Consultant shall include, as a minimum, the following:
 - 1. Scope of supply, including tag numbers, as applicable;
 - 2. Lead time estimates developed by Consultant for scheduling purposes;
 - 3. Recommended purchasing strategy and justification of methods to be employed, such as competitive bidding, use of existing agreements, negotiation, etc; and
 - 4. Bid evaluation criteria including cost, schedule, execution, quality, HSE, benefits and technical evaluation criteria. Consultant's bid evaluation criteria shall also include warranties, licensing requirements, distribution of risks, confidentiality requirements, and other such terms offered by bidders.
- w. Execution milestones such as inquiry issue and return, proposal evaluation and clarification, award recommendation, anticipated date of order placement, delivery dates for goods and/or services, design and interface information, and other deliverables,
- x. Special interface issues resulting from placement of the order, and
- y. Budget price and the basis of the estimate.

6.5.2 Requirements specific to Contracting are as follows:

6.5.2.1 Consultant's Overall Contracting Plan

Consultant shall submit its Overall Contracting Plan for Company's review, within the time specified in Table 1.1 of Section 1, but before issuing the first inquiry for a Contract. The Overall Contracting Plan shall explain Consultant's main contracting methods and strategies and how Consultant will execute contracting activities to achieve Project objectives. The Overall Contracting Plan shall be comprehensive and explain the purpose and relationship of the various plans, processes and procedures described in it.

Contents of Overall Contracting Plan

Consultant's Overall Contracting Plan shall include at least the following information:

- a. The plan shall describe the extent of the Work to be bid to Contractors and a definition of each party's roles and responsibilities. Consultant shall show the number and type of Contracts, including the scope of Work for each;
- b. Identification of Contracts that Consultant proposes be handled from the Site. In addition, Consultant shall describe any oversight or assistance to be provided by the home office;
- c. The division of responsibility between Consultant and its Contractors for providing materials and equipment required for the Work:
- d. Schedule for all contracting activities (e.g., issue of inquiries, receive proposals, evaluate bids, award contracts, etc.). Consultant shall assure that the key dates shown are compatible with the overall project schedule;
- e. Consultant's contracting procedures, including the methodology used for the following:
 - 1. Screening and selecting bidders;
 - 2. Issuing inquiries;
 - 3. Performing bid evaluations; and
 - 4. Awarding Contracts.
- f. Process to fast-track commitments;
- g. A list of the major contracting issues anticipated for the Work (with emphasis on interface management and priority based on project risk, e.g. Work scope, schedule, value, etc.), and recommended actions to successfully address them;
- h. A summary of contracting activities already completed by Consultant;
- i. Contract administration processes and procedures including a discussion of how Consultant will ensure that Contractors comply with all requirements of this Agreement including these coordination procedures, where applicable;
- j. Consultant's plan to identify and use Newfoundland and Labrador Contractors and Suppliers in executing the Work in a main contract or subcontracting capacity;

- k. Guidelines for communicating with bidders and Contractors; and
- l. Proposed Contract documents with terms and conditions.

6.5.2.2 Individual Contracting Plans

- a. Consultant and its Contractors shall prepare and submit its Individual Contracting Plans for every Contract estimated to cost 5,000,000 CDN Dollars or greater for Company's review within the time specified in Table 1.1 of Section 1. Releases against existing agreements will not require individual plans if the original agreement already has one that can be reviewed by Company;
- b. Consultant shall submit Individual Contracting Plans to Company at the earliest opportunity and in time to permit adequate analysis, distribution and review by Company prior to requesting proposals. Company shall endorse Individual Contracting Plans before issuance of the inquiry package;
- c. Individual Contracting Plans shall include a list of proposed bidders. A brief description of each proposed bidder as well as any issues or special considerations for each bidder will also be included. Prospective bidders shall be qualified using the process described in section 6.5.3.2;
- d. Consultant shall integrate Individual Contracting Plans with the overall schedule requirements to the extent possible. Consultant shall identify any potential schedule risks, their probable causes, and any steps to be taken to mitigate such risks for delivery assurance;
- e. Individual Contracting Plans shall identify any technical issues that may impact the selection of the Contractor. Such issues may include technical preferences, the use of new technology, testing and documentation requirements, and differences between Contractors;
- f. The level of detail for each Individual Contracting Plan will be commensurate with its criticality and the Contract value. Each individual plan prepared by Consultant shall include, as a minimum, the following:
 - 1. Work scope of the Contract;
 - 2. Schedule estimates developed by Consultant for completing the Contract Work scope;

3. Recommended contracting strategy and justification of methods to be employed, such as competitive bidding, use of existing agreements, negotiation, etc;
4. The proposed compensation basis (e.g. lump sum, reimbursable cost, etc) and a justification for the recommendation. Consultant shall also advise if they propose using any incentive plan for the Work being contracted;
5. Execution milestones such as inquiry issue and return, proposal evaluation and clarification, award recommendation, anticipated date of Contract award, schedule for completion of contracted Work, design and interface information, and other deliverables;
6. Bid evaluation criteria to be used for selecting the successful bidder, including cost, schedule, effectiveness of proposed execution plan, quality, HSE, Newfoundland and Labrador Benefits and technical aspects of each bidder's proposal. Consultant's bid evaluation criteria shall also include warranties, licensing requirements, distribution of risks, confidentiality requirements, and other such terms offered by bidders;
7. Special interface issues resulting from placement of the Contract;
8. Budget price and the basis of the estimate; and
9. Assessment of the market and its impact on cost and schedule

6.5.3 Requirements common to Purchasing and Contracting are as follows:

6.5.3.1 Bid List for Inquiry Packages

- g. For requirements to be bid, Consultant shall develop the bid list for these specific inquiry packages. Consultant shall ensure that the bidders can meet the specification and quality requirements for the Work,
- h. The bid list is subject to review and endorsement by Company. Company may request that the Suppliers recommended by Consultant be qualified using as a minimum the process described in section 6.5.3.2 below,
- i. Consultant shall advise Company if there are any potential Newfoundland and Labrador Contractors and Suppliers for the goods and services for which Consultant is requesting quotes. Company and Consultant shall work together to determine if such Newfoundland and Labrador Contractors and Suppliers are suitable for inclusion on the bid list;

6.5.3.2 Qualification of Suppliers

- j. Consultant shall recommend a process to qualify Suppliers and Contractors for possible inclusion on the bid list.
- k. As part of its qualification process, Consultant shall contact prospective bidders to confirm that they can supply the material or equipment required in conformance with the specification.
- l. Company's minimum requirements to assure that only technically qualified Suppliers and Contractors are invited to submit proposals are as follows:
 - 1. On-time delivery or ability to consistently meet schedule,
 - 2. Technical competence and ability of goods and services to meet the requirements of the specification for the Work,
 - 3. Relevant experience in providing what is being purchased,
 - 4. Acceptable quality practices and performance that demonstrates the effectiveness of Supplier's quality systems, and
 - 5. Consultant's and Company's experience with any potential Supplier or Contractor.
- m. Consultant shall establish criteria for review of a potential bidder's financial condition and shall implement them in order to avoid placing orders with financially risky or unstable companies.
- n. For Suppliers and Contractors providing a service along with the equipment (on Company sites), Consultant shall review each prospective bidder's safety performance and compliance with drug and alcohol requirements.

6.5.4 Requirements specific to Materials Management are as follows:

6.5.4.1 Materials Management Plan

Consultant shall submit its Materials Management Plan for Company's review, within the time specified in Table 1.1 of Section 1, but before the first order is placed. The Materials Management Plan shall explain Consultant's main methods and strategies for the contents listed below and how Consultant will execute these activities to achieve Project objectives. The Materials Management Plan shall be comprehensive and explain

its relationship to activities in the Overall Purchasing Plan supported by the Materials Management function.

Contents of Materials Management Plan

Consultant's Materials Management Plan shall include, at least, the following information:

- a. The forms and documents used for materials management activities (e.g. expediting reports, OS&D reports, etc.),
- b. Consultant's plan and procedures for expediting Suppliers to assure delivery of the equipment and materials purchased for the Work. These will incorporate as a minimum, the following:
 1. A list of the critical items and specific expediting plans for these purchases,
 2. A matrix showing Consultant responsibility for the critical items (management, purchasing and engineering),
 3. Target dates for order placement and initial Supplier alignment meeting,
 4. Consultant's expediting plan for the Work shall show a detailed description of how Consultant will expedite the following:
 - a) Supplier acknowledgment of purchase orders and revisions
 - b) Submittal of required Supplier drawings and data
 - c) Consultant's comments and/or approval of Supplier drawings and data received
 - d) Placement of sub-orders by Suppliers
 - e) Inspection requirements and dates
 - l) Delivery of equipment and materials
 - g) Invoices (as needed for exporting)
- c. Consultant's Logistics Plan, which shall include local deliveries, ocean/air shipments and shipments requiring special handling (highway permitting, heavy lifts, etc.) through delivery to final destination safely and efficiently, shall address the following:

1. How Consultant will source different modes of transportation (truck, rail, barge, air, ocean, etc.),
 2. How Consultant will coordinate and manage the movement of equipment and materials required for the Work,
 3. How Consultant will handle export packing, freight forwarding, import/export requirements, shipping, customs clearance, as applicable, and delivery to all destinations,
 4. How Consultant intends to use a freight forwarder specialist company and integrate into the overall project logistics plan, and
 5. How Consultant will manage seasonal shipping restrictions to ensure timely delivery of materials.
- d. Consultant's Materials Management Plan and procedures shall include the following:
1. The location of warehouses, laydown yards, and staging areas for storing equipment and materials,
 2. The processes and procedures to be used for preservation, receipt, storage, and issuance of equipment and materials purchased for the Work,
 3. Description of Consultant's process for initial inspection of equipment and materials received at the warehouses and laydown yards and for follow up inspections,
 4. Controls and security measures used to ensure that all equipment and materials received are properly stored and accounted for,
 5. Any special materials handling equipment needed for moving equipment and material, etc.
 6. Provide a plan for minimizing surplus material and effectively dispose of any surplus material remaining when the Work is completed, and

7. Outline methods to ensure material can be located under snow cover and ensure access without damaging equipment and materials with snow removal equipment.

SECTION 7 - COST MANAGEMENT

7.1 SCOPE

This section sets forth Company's minimum requirements for cost estimates, cost control budgets, and forecasts for the Services and the Project.

7.2 DEFINITIONS

- A. **Baseline** – In project control, the reference plans in which cost, schedule, scope and other project performance criteria are formally compared against for assessment of progress and performance, and the comparison benchmark for identifying cost and schedule deviations.
- B. **Code of Accounts (COA)** – A systematic coding structure for organizing and managing scope, asset, cost, resource, work, and schedule activity information. A COA is essentially an index to facilitate finding, sorting, compiling, summarizing, or otherwise managing information that the code is tied to. A complete code of accounts includes definitions of the content of each account.
- C. **Cost Baseline** – A time-phased budget used to measure and monitor cost performance. It is developed by summing estimated costs by period and is usually graphically displayed in the form of an S-curve.
- D. **Forecast Final Cost** – The anticipated cost of a project or component when it is complete. The value of the incurred costs plus the estimated cost of work left to complete. The cost of the work left to complete is calculated based on past performance, pending contracts, pending Change Orders, approved trends, assigned technical allowance and applied contingency.
- E. **Work Breakdown Structure (WBS)** – Framework for organizing and ordering the activities that makes up a project. Systematic approach to reflect a top-down hierarchy structure with each lower level providing more detail and smaller elements of the overall work.

7.3 OBJECTIVES

- A. The basic cost control mechanism for the Agreement shall be the Services Budget. The Services Budget shall be prepared from a detailed cost estimate covering the full scope of the Services. The detailed cost estimate for the Services will be prepared by the Consultant as described in Paragraph 7.6 below and developed in accordance to the Work Breakdown Structure, reference LCP Work Breakdown Structure MSD-

- PJ-010 contained in Part 2, Exhibit 6 Company Supplied Data, on a package by package basis. The detailed estimate shall encompass Consultant's entire scope of Services as defined in Agreement, including, but not limited to, reimbursable costs, unit rates, lump sum, and fee. It will contain sufficient detail for full understanding of how all activities contribute to the overall cost of the Services.
- B. Once approved by Company, the detailed estimate shall become the Services Budget and to act as the Cost Baseline for the Services upon which the Consultant shall assess cost performance and deviations.
 - C. The basic cost control mechanism for the Project shall be the Project Budget. The Project Budget shall be prepared based upon the Services Budget and the Sanction Cost Estimate for the Project.
 - D. A Sanction Cost Estimate for the Project will be prepared by the Consultant, with Company, as described in Paragraph 7.6 below and developed in accordance to the Work Breakdown Structure, reference LCP Work Breakdown Structure MSD-PJ-010 contained in Part 2, Exhibit 6 Company Supplied Data, on a package by package basis. The Sanction Cost Estimate shall be prepared to meet the requirement set forth by the Project Milestone Schedule.
 - E. The Sanction Cost Estimate shall encompass the entire Work for the Project. It will contain sufficient detail for full understanding of how all activities contribute to the overall cost of the Services. The Sanction Cost Estimate should meet at minimum the requirements of a Class 3 Estimate under the Association for Advancement of Cost Engineering International (AACEI) cost estimate classification system.
 - F. Once approved by Company, the Sanction Cost Estimate will serve as the Cost Baseline for the Work upon which the Consultant shall assess cost performance and deviations.
 - G. Cost management procedures for the Services shall be based on Consultant's established procedures to the extent possible and shall be approved by Company as part of Consultant's Cost Management Plan.
 - H. Consultant will monitor costs on an on-going basis to compare actual costs with the Cost Baseline.
 - I. Consultant shall take immediate corrective action when forecasted costs exceed those reflected in Cost Baseline. Consultant will monitor corrective actions to ensure that they effectively reduce costs back to the levels contained in Cost Baseline.

- J. As applicable, for portions of the Services to be compensated on a unit rates basis, quantities will be determined from and traceable to the detailed design drawings or other agreed metrics.

7.4 CONSULTANT DUTIES

With respect to cost management, Consultant shall:

- A. Prepare, maintain, and implement a Cost Management Plan to manage costs associated with the Services and the Work. Consultant's Cost Management Plan shall be presented to Company for review and approval prior to implementation.
- B. Prepare a detailed estimate for the Services that accurately reflect Consultant's entire scope of the Services, the Work Breakdown Structure, the Execution Plan, and the Project Milestone Schedule.
- C. Agree with Company the Services Budget using the detailed cost estimate prepared for the Services.
- D. With Company's input, prepare a detailed estimate for the Work that accurately reflects the scope of the Project, the Work Breakdown Structure, the Execution Plan, and the Project Milestone Schedule.
- E. Agree with Company the Project Budget using the detailed cost estimate prepared for the Work.
- F. Monitor costs of the Services to ensure that all costs remain within the Services Budget and Cost Baseline for the Services.
- G. Monitor costs of the Works to ensure that all costs remain within the Project Budget and Cost Baseline for the Project.
- H. Provide all supplementary estimating work that is necessary for effective Services and Work execution and cost control, including providing timely estimates for the cost impact of changes in accordance with Section 9 of this Coordination Procedure to keep the Services Budget and Project Budget current.
- I. Perform timely cost analysis for all items within the Services and the Work.
- J. Take corrective action when the forecast of any cost component begins to trend higher than the Cost Baseline for the Service and Cost Baseline for the Project and to

take advantage of potential cost reductions. Consultant shall also monitor such corrective actions to ensure that they are working as intended.

- K. Provide, on a monthly basis, Forecast Final Cost for the Services and the Work.
- L. Prepare and issue monthly cost reports for the Services and the Work.

7.5 COMPANY DUTIES

- A. Company will review, upgrade as necessary to ensure compliance with Agreement requirements and Company guidelines, and approve Consultant's Cost Management Plan.
- B. Review Consultant's detailed estimate for the Services to ensure that they accurately reflect the scope of Services as defined in Agreement.
- C. Agree with Consultant the Services Budget.
- D. Engage with Consultant, to a level deemed appropriate, to develop the Sanction Cost Estimate for the Work.
- E. Monitor Consultant's on-going cost control activities to assure that cost objectives are being achieved.

7.6 SPECIFIC REQUIREMENTS

- A. Within the time specified in Table 1.1, Consultant shall prepare and submit to Company its Cost Management Plan for the Services and for the Work. Consultant's Cost Management Plan should cover all areas of cost control including the items listed in Appendix 7.1.
- B. Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company, Consultant's detailed estimate of the total cost to Company for the Services.
- C. Company shall review Consultant's detailed estimate for the Services and shall work with Consultant for the purpose of establishing the Services Budget as soon as reasonably practical.
- D. The Services Budget shall become the Cost Baseline for the Services.

- E. In order to meet the requirements of Gate 3 within the time specified in the Project Milestone Schedule, Consultant shall prepare and submit to Company, a detailed estimate of the total cost for the Work. The guidelines and expectations set forth in Appendix 7.2 shall be adhered to by Consultant when preparing this detailed estimate. Company will work with Consultant, as it believes is necessary, in order to prepare the detailed estimate for the Work.
- F. Once approved by Company, the detailed estimate of the total cost for the Work shall become the Sanction Cost Estimate and the Cost Baseline for the Work.
- G. All cost estimates shall be consistent with the compensation basis in Exhibit 4.
- H. The Cost Baseline shall include a corresponding cost flow showing the time-phased projection of how costs are expected to be incurred over the Agreement duration and consistent with the Project Master Schedule.
- I. Cost analysis shall be done as early as possible for any given item. For equipment, analysis should be accomplished by spot checks of key design parameters (e.g. wall thickness, etc.) in Consultant's request for quotations versus the estimate basis; and by direct comparison of the actual cost of the items to the estimated cost of the respective items contained in the control estimate.
- J. For bulk materials, cost analysis normally should be accomplished by sampling techniques (for quantity), and direct comparison to unit prices (for cost) contained in the control estimate. Sampling procedures to be utilized for the above should be reviewed by Company. Cost analysis should be performed before committing to an order for the relevant item.
- K. For portions of the Services and the Work to be compensated on a reimbursable basis, Company shall have full access to Consultant's analyses and backup data, including any historical data that may have been used by Consultant.
- L. For portions of the Work to be compensated on a unit rate basis, Company shall have full access to Consultant's quantity analyses and backup data, including any historical data that may have been used by Consultant to determine quantities. Consultant is expected to compare actual design quantities for bulk materials with estimated quantities using a sampling technique. Consultant shall examine the cost history related to the Work, and apply this knowledge in forecasting the costs of the remaining portions of the Work. This type of analysis shall be made for all known remaining items.

- M. Consultant shall review with Company the basis and assumptions used in forecasting. This will be done monthly or as requested by Company.
- N. Consultant may use accepted industry norms in forecasting costs of equipment, materials and Contracts. The level of these allowances shall be agreed with Company. Consultant shall identify these allowances in the forecast, reassess them periodically, and adjust them at a rate agreed to by Company.
- O. Consultant shall take corrective action whenever there is an identified trend which indicates a potential cost overrun, or which indicates an opportunity to reduce Project costs or counteract potential cost overruns. After Consultant identifies a potential corrective action, it shall review that action with Company who shall approve the corrective action prior to the Consultant initiating the corrective action. After the Consultant initiates Company-approved corrective action, it shall review the results of this action with Company to determine whether it has been effective in accomplishing its intended purpose.
- P. Consultant shall review all corrective actions with Company at least monthly. This review should include results of those actions taken previously; actions initiated since the last review, and identified trends together with contemplated corrective actions to halt/reverse adverse trends or to take advantage of identified opportunities.
- Q. Consultant's Representative shall hold regular meetings to discuss cost control with members of Consultant's organization for the Services. The purpose of such meetings should be to decide on corrective action to counter undesirable trends and to review the effectiveness of previous decisions. The frequency and schedule for such meetings shall be agreed by Consultant and Company.
- R. The format and content of the monthly cost report (to be included in the monthly progress report) shall be agreed to by Company promptly after award of Agreement. It shall integrate and contain an analysis for all the Services. At a minimum, the monthly cost report should contain:
- 1) Summary tabulation of the Cost Baseline, the current budget, incurred cost of Services, value of work done and commitments to date;
 - 2) The latest Forecast Final Cost, and associated time phased data representing Consultant's best estimate of the final cost of the Services under the Agreement;

- 3) Reconciliation of deviations (complete with reasons) between the Forecast Final Cost and the Services Budget;
 - 4) Tracking profiles of items specified by Company as well as work-hour and productivity data, including comparable data on all major Contracts;
 - 5) Analysis of any significant variances between the Project Budget and the costs to date of purchase orders and Contracts already awarded;
 - 6) Where overruns or under-runs are forecast Consultant shall determine reasons for any deviations, and an analysis as to whether they are due to differences in quantity or purchase price, schedule delays, estimate errors or some other identifiable cause;
 - 7) Change log showing the status and expected costs (and any expected schedule impacts) of all changes issued to Consultant; whether they are approved or pending; and
 - 8) A continuous variance record from the Cost Baseline.
- S. When the Services are complete, Consultant shall prepare a final cost report in a format to be agreed with Company. This final cost report shall be structured by work package in accordance with Exhibit 4 - Compensation. The final account for each work package shall clearly identify the original Project Budget, approved Change Orders, disputed Change Proposals, and actual costs for those components compensated on a reimbursable basis.

GUIDANCE & EXPECTATIONS

APPENDIX 7.1

Consultant's Cost Management Plan should, at a minimum, incorporate the following items:

- A. Consultant shall describe in-detail the process for developing and documenting cost estimates and how their accuracy is to be ensured.
- B. How the various groups in Consultant's organization (e.g. engineering, procurement, construction, etc.) participate in developing cost data and in cost control activities. Consultant's plan should include diagrams that show the sources and flow of such information.
- C. Process for aligning and interfacing Company's and Consultant's standard cost management processes and tools, including code of accounts, and cost control system Consultant will use for the Services.
- D. Consultant's process for verifying physical progress of Services (e.g. production of engineering drawing deliverables) and of Work (e.g. cubic meters of concrete placed) in order to assert actual earned cost against the Cost Baseline.
- E. Consultant's process for analyzing cost data and assessing the relation between actual costs and the cost control estimate as the work progresses.
- F. Consultant's process for forecasting costs of the Services and the Work to determine if corrective action needs to be taken in anticipation of unfavorable trends. Consultant should describe in detail its use of earned value management practices, productivity curves (by engineering discipline and construction craft) showing historical and expected productivity to forecast staffing requirements and associated costs against key performance indicators (KPIs) Consultant intends to use and as agreed by Company.
- G. How corrective action will be initiated when required to maintain actual and forecasted costs within the control budget.
- H. The methodology for handling change proposals and approved/pending Change Orders so that the Services Budget and Project Budget are maintained on a current basis.
- I. Samples of the various cost related reports that will be produced (indicating the type of data to be included) and their scheduled issue dates.
- J. Consultant will describe procedures for maintaining the same level of control and reporting data for Contractors.

APPENDIX 7.2

Prior to beginning its Services on the assigned portions of the development of detailed cost estimates for the Work, Consultant shall meet with Company to discuss and agree upon the following items:

- A. Basis of Design – The estimate shall be based on the scope of the Project and the Lower Churchill Project Basis of Design. The estimate should not reflect any anticipated design or execution changes.
- B. Cost basis – The same cost basis should be used for the entire cost estimate. Factors that must be agreed to include: wage rates and productivities, unit costs for common commodities, data sources for permanent equipment costs, source of bulk material quantities, construction equipment rates, and escalation methodology.
- C. Allowances – Consultant should identify any (and all) allowances, take-off factors, or contingencies that it normally uses as part of its estimating methods, together with a description of the costs which they are intended to cover. All must be agreed by Company before incorporation into the estimate.
- D. Contingency – Company shall define how contingency shall be determined for the estimate. Consultant will not include any contingency within the development of the cost estimate.
- E. Exclusions – Items outside the scope of Services shall be excluded from those portions of the estimate development assigned to Consultant. Consultant should identify any items that it considers an exclusion.
- F. Code of accounts – All cost estimates shall be prepared using the same code of accounts and area breakdown that will be used to report and control the costs and progress of the Work. This code of accounts should also be applicable to Consultant’s accounting. The code of accounts will also be consistent with LCP Work Breakdown Structure (WBS).
- G. Documentation – Company shall describe the amount of documentation that it requires to support the all cost estimates, including the Cost Baseline. Documentation would include a detailed basis of estimate, estimate summaries and relevant details of all components of the estimate. A typical control estimate and its backup data previously developed by Consultant will be available to support discussion of how best to provide that detail.
- H. Review – Company shall prescribe the desired timing and the scope of its review of those portions of the estimate being prepared by Consultant. Company’s review may include a review by independent third parties.
- I. Timing – Consultant shall submit a schedule to Company indicating when the various assigned portions of the estimate will be needed to support Services requirements.

SECTION 8 – PROJECT CHANGE MANAGEMENT

8.1 SCOPE

This section sets forth Company's minimum requirements for Project change management by Consultant. This encompasses all changes to the Project, including:

- Changes to the Services that are covered under the Agreement and Exhibit 5, Section 9 – Changes to the Services;
- Other waivers, deviations or changes to the Project's definition, scope, technical basis, execution methodology, schedules, estimates, design criteria, etc. resulting from design and execution planning progression;
- Changes to the Lower Churchill Project Basis of Design; and
- Changes to the Work carried out by Contractors and Suppliers.

The Project change management process applies irrespective of whether Company, Consultant, Contractors, or Suppliers initiate the change.

8.2 OBJECTIVES

Managing and monitoring Project changes is critical to achieving Company's objectives for the LCP. Changes in design criteria, philosophies, construction methods, standards, laws regulations, operational parameters, procedures, site standards, facilities or personnel must be evaluated and managed to ensure that health, safety, environmental, operational, reliability, regulatory, cost, commercial / contractual and schedule issues arising from these changes /deviations are thoroughly considered and are acceptable to both Consultant and Company.

All changes, deviations, revisions, or waivers irrespective of whether Company, Consultant, Contractors, or Suppliers initiate the change must be reviewed, approved, and documented before they are implemented to ensure that minimal risks are introduced into the design of the Services or the Project.

8.3 CONSULTANT DUTIES

- A. Prepare, implement, and maintain a Project Change Management Plan for Company's approval that ensures changes that occur during progression of the Services and Work are properly identified, documented, reviewed and approved.
- B. Ensure similar requirements are placed on Contractors, Suppliers, and other third party service providers.
- C. Establish and manage linkages between Consultant's Project Change Management Plan, Cost Management Plan and Schedule Development and Control Plan in order to produce accurate cost and schedule forecasts.

8.4 COMPANY DUTIES

- A. Review and approve Consultant's Project Change Management Plan.
- B. Monitor and appraise Consultant's implementation of Project Change Management Plan.
- C. Respond to Consultant requests for deviations in a timely manner.
- D. Approve Change Orders and deviation requests as required or as applicable.

8.5 SPECIFIC REQUIREMENTS

Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company a Project Change Management Plan. The Project Change Management Plan should include as a minimum the following:

- A. A procedure for freezing the design basis drawings, plans, procedures, and other documentation issued for project execution activities and managing subsequent engineering design changes and quantity changes.
- B. A procedure for managing change during the construction and Completions phases of the Project.
- C. Classification and definitions for the types of change that likely will be encountered.
- D. Definition of the authorities (both internal and external) that approve changes / deviations.
- E. Description of the technical reviews of changes that includes impact on safety, health, environment, schedule, cost, execution, regulatory compliance, operational reliability risks.
- F. Process for ensuring that Contractors, Suppliers, and other third party service providers have similar management of change procedures and processes in place.
- G. Procedures for processing change / deviation requests from Contractors, Subcontractors, Suppliers, or other third party service providers.
- H. Procedures for obtaining Company approvals, when required.
- I. How changes will be documented, including but not limited to, update of specifications, drawings, plans, and procedures.
- J. How changes will be considered when producing cost and schedule forecasts.
- K. How approved changes will be communicated to Company, Consultant personnel, Contractors, Suppliers, or external interfaces.

SECTION 9 - CHANGES TO THE SERVICES

9.1 SCOPE

This section sets forth the minimum requirements for identifying and processing any Changes to the Services. Changes are revisions to the Services or other events that require administration as Change Orders pursuant to Article 23 of the Agreement and / or require modification of the overall Services during execution of the Services.

9.2 OBJECTIVES

Change Requests will be processed by Consultant quickly and submitted to Company for approval in a timely manner. Once approved, project documents, budgets, forecasts, and schedules will be updated in a timely manner.

9.3 CONSULTANT DUTIES

With respect to identifying and processing Change Requests and implementing Change Orders, Consultant shall:

- A. Prepare, maintain and implement the Change Control Plan covering all aspects of processing Changes as described in Paragraph 9.5.
- B. Ensure that plans and procedures for processing Changes are consistent with work processes and review requirements specified in elsewhere in this Agreement.
- C. Initiate a request for a revision to or deviation from the Services when such revision, if implemented, would increase the likelihood of achieving the established objectives for the Services.
- D. Respond promptly to each request from Company for an estimate of the effect, if any, that a proposed revision to or deviation from the Services will have upon the Services Budget or Project Control Schedule.
- E. Implement revisions to the Services when authorized by Company via a Change Order.
- F. Provide all supporting documentation required to justify a Change Request including cost, resource and schedule impact.
- G. Communicate Change Request as soon as after identification to allow for mitigation by Consultant and Company.

9.4 COMPANY DUTIES

- A. Review, upgrade as necessary to meet the requirements of the Agreement, and approve Consultant's Change Control Plan.
- B. Initiate Change Requests for Changes to the Services.
- C. Review Change Proposals prepared by Consultant.
- D. Authorize and approve Change Orders.

9.5 SPECIFIC REQUIREMENTS

Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company a Change Control Plan that should include detailed procedures to be followed in processing Change Orders. The procedures should cover the receipt of Change Requests, the preparation of Change Proposals, and the implementation of Change Orders. In addition the procedures shall reflect how Change Orders will be incorporated into the Project Control Schedule and progress and performance management system.

Consultant's normal methods of processing Change Orders are acceptable provided that these methods meet the requirements of Article 23 of the Agreement and include appropriate schedule and cost control measures. The Change Control Plan will be reviewed for acceptability by Company, and Company may require modifications to the procedures or recasting of the information in different formats to those proposed by Consultant in order to meet Company's expectations defined in Attachment 9.2.

9.5.1 Procedural Requirements

1. Consultant's procedures for initiating and processing Change Requests and implementing Change Orders shall incorporate the following requirements, at a minimum:

9.5.1.1 Change Requests

- A. Consultant or Company may initiate a request for a revision of the Services. However, Consultant shall obtain Company's approval prior to expending any engineering, cost estimating, scheduling or other effort in support of the requested Change. Company, if it approves, shall issue a Change Request to Consultant. The Change Request shall include a brief description of the proposed revision to Services and the required Consultant's services, including appropriate identifying references, and identification of who initiated the Change Request (Company or Consultant) and the reason for the Change Request (e.g., safety, operability, Company preference, or investment return).

- B. At Company's discretion, Company may authorize Consultant to perform all or part of the work associated with the Change at the time a Change Request is issued. In such a case, Consultant shall perform the work so authorized while preparing the associated Change Proposal.
- C. Consultant shall assign a Change Request number to each Change Request and enter it into the Change Order log (Paragraph 9.5.1.5 below) at the time that it is issued. Change Requests shall be numbered consecutively

9.5.1.2 Change Proposals

- A. Consultant shall respond to a Change Request by submitting a completed Change Proposal to Company within fourteen (14) working days of the initial request. If Consultant determines that the Change Proposal cannot be completed within fourteen working days, Consultant shall promptly advise Company of that fact, the reason for the delay and the date that the Change Proposal will be available for Company's review. The Change Proposal shall include:
 - 1) The impact of the Change on health, safety, and the environment.
 - 2) The effect, if any, on the cost forecast, Services Budget , with subtotals reflecting estimated increases/decreases in direct material, direct labor, subcontracts, indirect field costs, home office costs, other costs, and the cost of preparing the Change Proposal. The estimates shall be supported by accompanying backup data that clearly define how the subtotals were developed.
 - 3) The effect, if any, on the Project Control Schedule, or the Scheduled Completion Date, with appropriate accompanying backup data.
 - 4) A statement regarding the effect of the proposed Change, if any, on Consultant's, Contractors' and Suppliers' guarantees.
 - 5) The effect, if any, on process or utility requirements.
- B. A Change Proposal shall specify that the Services Budget will be adjusted upward or downward because of the Change, on the basis set forth in Exhibit 4. A Change Proposal shall contain a detailed estimate of the Consultants resource requirements as well as any facilities requirements for each item in the Change. These items shall be defined on new or revised cost time-resource (CTR) sheets. Any revisions to the Project Control Schedule shall be noted on the Change Proposal.
- C. If Company authorization to proceed with the revision to the Services has not accompanied the Change Request, the Change Proposal shall include the latest date such authorization can be given without affecting the Scheduled Completion Date.
- D. Change Proposals shall be numbered to match corresponding Change Requests.

- E. If Consultant wishes to initiate a Change Proposal, it shall obtain Company's approval before expending any costs associated with engineering, estimating, scheduling, or other efforts in support of the proposal for which Consultant expects to be reimbursed.

9.5.1.3 Change Orders

After receipt of the Change Proposal, Company will respond to it. Company will not be obligated to accept any Change Proposal, but may do so at Company's sole discretion. If Company decides to proceed with a Change, it may direct Consultant to make the Change by issuing a Change Order. Company will transmit two (2) unsigned originals of the Change Order to Consultant for signature. Both Consultant's Representative and Company's Representative or their designees, shall sign the Change Order. Consultant shall sign and return both originals to Company. After signature of the Change Order by Company, the Change Order will be considered executed and one (1) original will be returned to the Consultant.

Company's authorization for Consultant to perform work associated with a Change will normally accompany the approved Change Order. However, Company may authorize Consultant to perform part or all of the work associated with the Change at the time that it issues the Change Request.

Change Orders shall be numbered to match corresponding Change Requests and Change Proposals and shall be generally in the format shown in Attachment 9.1. A Change Order when issued represents full and complete compensation for performing a Change including any cumulative effect this Change may have on the overall Work.

Change Requests, Change Proposals, and Change Orders shall be distributed in accordance with the requirements of Section 2 of these Coordination Procedures.

9.5.1.4 Disputed Changes

Disputed Changes shall be dealt with as per the terms of Agreement.

9.5.1.5 Change Order Log

Consultant shall maintain a Change Order log of approved and pending Changes that shall include: the Change Order, a brief description of the Change, the date that the request was received by Consultant, the date that the Change Proposal was submitted to Company, the date that it was approved or rejected, the action taken by Company (approval or rejection), the effect upon the cost forecast, Services Budget, forecast and Scheduled Completion Date, and any remarks.

Each Change Request shall be entered on the summary at the time it is requested. Subsequent entries shall be made at appropriate times to ensure that the summary is current. The logs should be maintained in a comprehensive database for easy sorting and retrieval. Consultant shall keep the logs current and include a summary of them in

its monthly progress report. Consultant shall issue the summary with Consultant's monthly progress report and additionally, as requested by Company.

**Attachment 9.1
 Change Order**

| | |
|--|---------------------------|
| Consultant: Agreement No: | Date: Change Order No: |
| Title of the Change Order | |
| <p>Change to the Services: Description of proposed Change: Portion of Services affected: Deliverables: Special Conditions:</p> | |
| <p>Accepted effects of the Change to the Services: Effect on Services Budget by currency and WBS Cost build up and justification (including person-hours, facilities, indirects, etc.) Effect on Project Control Schedule: Effect on Safety, Health, or Environmental and Other Areas (compliance, interfaces, other consultants, etc.): Other Impact: Payment Provisions:</p> | |
| <p>Change Order: Consultant shall be authorized to proceed with the Change as described above when this Change Order is signed by Company. When the Change Order is signed by both Company and Consultant, then the Parties shall be obligated to fulfill the terms and conditions of the Agreement as may be modified above in respect of this Change Order. This Change Order is executed in duplicate originals on the date shown below.</p> | |
| For Consultant: | For Company: |
| Signed By: | Authorized By: |
| Print Name: | Print Name: |
| Date: | Date: |

Note: Consultant may use its own form as long as all the information contained in Attachment I is contained in Consultant's Change Order form.

GUIDANCE AND EXPECTATIONS

ATTACHMENT 9.2

Consultant's Change Control Plan for the Services shall cover all essential areas of Change Management and control and reporting. The plan shall include a detailed description of:

- A. How Change / deviation requests will be initiated.
- B. How Change Proposals will be prepared by Consultant and the format which they will be presented in to Company.
- C. How potential health, safety, and environmental impacts will be assessed.
- D. How schedule and resource impacts will be assessed.
- E. The methodology for recording and tracking Change Requests, Change Proposals, and Change Orders approvals.
- F. How revisions to the Services will be implemented when authorized by Company.
- G. The forms that will be used in the entire process, including a sample of each.
- H. The plan will include a responsibility flow diagram (RFD) that shows how the Change control systems work, including responsibilities for approval and review.
- I. Methodology to be used to prepare Change Proposal estimates requested by Company.
- J. Methodology Consultant will use to handle Change Requests from its Subcontractors.
- K. Where in the management process cost and schedule bases assessments are developed and by whom.
- L. Once approved, how the Services Budget and Project Control Schedule are updated.
- M. Major points of interface between Consultant and Company.
- N. How assessment recommendations are made as to whether Change / deviation impacts other major project elements not directly within Consultant's scope.
- O. Sample Change Order log.
- P. Example tables that show how pending and approved Changes are to be documented for the monthly report. A Change that has been submitted to Company but not yet approved shall be classified as pending.

SECTION 10 – RISK MANAGEMENT

10.1 SCOPE

This section addresses the need to implement a Project risk management program for the Services and the Work encompassing all Project-level risks.

Consultant's risk management program shall consider HSE (health, safety and environmental), design, regulatory, construction / execution-related, and operational, quality, and reliability risks.

Risks assessments, including HAZOPs (hazard operability reviews) and Project cost and Services risk analysis are to be conducted by Consultant, in conjunction with Company, during the performance of the Services. Risk assessments shall consider design, construction, Completions and future operations phases.

10.2 OBJECTIVES

- A. Facilitate effective management of all Project risks and opportunities including HSE, design, execution, construction, schedule, cost, operational, reliability, and quality risks.
- B. Risk assessments will be planned and conducted in advance of appropriate schedule milestones or activities to allow resolution of risk without schedule disruption.
- C. Appropriate Personnel are included in risk assessments to ensure that risks are correctly identified and assessed.
- D. Results of risk assessments are evaluated by appropriate levels of Consultant and Company management and risk reduction measures are documented, executed, and followed-up to completion to reduce risks to an acceptable level at a reasonable cost.
- E. Risks and their resolutions plans are documented for acceptance by Company.

10.3 CONSULTANT DUTIES

- A. Consultant shall establish and implement a risk management program to identify and manage all types of Project risks including, but not limited to, HSE, quality, operational, reliability, cost, schedule during project design, execution, and operations consistent with Company's Risk Policy MSD-RI-001 and Lower Churchill Project Risk Management Philosophy MSD-RI-004 as contained in Part 2, Exhibit 6 Company Supplied Data.
- B. Consultant's risk management activities shall be encompassed under the overall LCP risk management program led by Company.

- C. Consultant's risk assessment system and activities must be based on the following principles:
1. All risks are to be identified.
 2. All risks must be qualified using Company's risk matrix contained in Project Execution Risk and Uncertainty Ranking Matrix MSD-RI-002, as contained in Part 2, Exhibit 6 Company Supplied Data.
 3. All risk scenarios shall be evaluated for elimination or mitigation.
 4. All risk shall have a documented response plan, with level of detail commensurate with exposure of the risk on the Project.
 5. All risks shall have a designated individual responsible managing the mitigation or elimination of the risk.
 6. Risk shall be allocated to the party who can most efficiently and effectively manage the risk.
 7. All higher and medium risk scenarios and associated risk management strategies must be communicated and accepted by the appropriate level of Company's management.
- D. Other requirements:
1. Consultant's risk management program shall include a plan listing the formal risk assessment activities and risk reviews to be performed during the engineering and procurement, construction and Completions phases, with risk assessment approach and frequency endorsed by appropriate management. It shall be consistent with Project Execution Risk and Uncertainty Ranking Matrix MSD-RI-002, as contained in Part 2, Exhibit 6 Company Supplied Data.
 2. The Scope of Services provides details for the minimum assessments required for the consideration of health, safety and environmental (HSE) risks. Consistent with Company's Safety-by-Design philosophy provide in the Scope of Services, the following are examples of HSE risk assessments that shall be included in the plan:
 - a) Design risk assessments
 - b) Preliminary HAZOP based on the concept design data (layout, design basis memorandum (DBM), etc.)
 - c) Final HAZOPs based the detailed design data (usually at a design freeze preceding construction and fabrication).
 - d) Installation and construction risk assessments
 - e) Completions risk assessments
 - f) Pre-start-up risk assessment

3. Consultant shall perform risk assessments using qualified Personnel. Consultant shall also include active involvement of Company operations Personnel and expertise from outside the Project team as appropriate.
4. Risk assessments and recommended prevention and/or mitigation measures must be formally documented.
5. Risk reduction measures and strategies shall be considered for all risks.
6. Risk response strategies for assessed risks in the higher and medium categories are required to be reviewed for acceptability by Company. These strategies must be appropriate to the nature and magnitude of the risk, with decisions clearly documented. Low risk scenarios in which the recommended action from the risk assessment is not accepted must be communicated and accepted by the Company. The recommended resolution of any risk items which do not have a high, medium or low risk ranking must be communicated and accepted by Company.
7. Approved plans for implementation of risk assessment response actions, showing priority, responsibility and planned timing for completion of each action must be managed throughout the Project duration. Plan deviations must be reviewed and approved by a level of Consultant and Company management specified in the original approved plan.
8. Results of formal risk assessments shall be considered in the preparation or review of key Project plans, strategies, and Forecast Final Cost projections.
9. Follow-up process to ensure that decisions have been implemented shall be formally documented. At a predetermined frequency, compliance reviews shall be undertaken to verify that formal risk assessments and follow-up actions are implemented according to plans.
10. At completion of all risk assessments and associated response actions, results of risk assessments and associated actions must be recorded and communicated to those affected.
11. Risk assessments shall be updated as changes occur as part of the project change management. Significant changes shall not be authorized until appropriate risk assessments are conducted, reviewed, and approved by Consultant and Company.

- E. Within the time specified in Table 1.1 of Section 1, Consultant shall submit the following for Company review and approval:

| Title | Contents |
|-------------------------------------|---|
| Risk Management System and Criteria | Description of the detailed approach that Consultant will apply for defining levels of risk assessment studies, approach to be taken, risk criteria, action tracking system & close-out, management communication & acceptance sign-off, etc. |
| Risk Assessment Plan | Planned dates, duration, participants of future activities. Status of completed and future activities. |
| Risk Action Close-out Report | Status report for actions and recommendations raised during risk management activities. |

- F. Company shall be invited to observe and/or participate, at its discretion, in any project-specific risk assessments performed by Consultant. Results of risk assessments shall be distributed to Company upon completion of any of the assessments included within the Risk Assessment Plan.
- G. Consultant shall also participate in risk assessments conducted by either Company or Other Consultants when these risk assessments include work activities where Consultant is involved.

10.4 COMPANY DUTIES

- A. Company will lead and coordinate overall LCP risk management program, and work with Consultant to integrate Consultant’s activities under the umbrella of this program.
- B. Company shall review and approve Consultant’s Risk Management System and Criteria, Risk Assessment Plan, and Risk Action Close-out Reports.
- C. Company shall familiarize Consultant with a risk management program currently in place for the LCP.
- D. Company shall provide Consultant with specifications that detail the status and remaining actions to be taken by Consultant on previously conducted any risk assessments.
- E. Company will provide participants for Consultant lead risk assessments as required by the Consultant's duties listed in this section.

SECTION 11 – ENGINEERING AND TECHNICAL DOCUMENTATION**11.1 SCOPE**

This section sets forth Company's minimum requirements for management of Engineering Services required to:

- A. Develop technical documentation through all phases of Project execution including those activities performed by Contractors, Subcontractors and Suppliers.
- B. Provide assurance that the detailed design conforms to Company's requirements, and is of acceptable Quality for safe operation of the Project.
- C. Ensure Company's Technical and Design Integrity (T&DI) oversight requirements and responsibilities are fully supported and seamlessly incorporated into Consultant's Services.

11.2 OBJECTIVES

Consultant shall:

- A. Manage all engineering activities within its organization as well as those of Subcontractor(s).
- B. Fully support Company's T&DI oversight requirements.
- C. Produce designs which minimize rework by Contractors during fabrication and construction.
- D. Minimize the work required to incorporate Contractors and Suppliers drawings into Consultant's designs. To this end, Consultant will work with Contractors and Suppliers to receive drawings and other documents in an electronic format compatible with Consultant's systems so that:
 - Consultant can use them directly without rework; and
 - Company can use them directly without rework.
- E. Document work processes, procedures and systems to ensure efficient control and Quality of design documentation and processes related to: completeness, validity, correctness, compatibility, compliance with safety, environmental and statutory requirements, and with good engineering practice.
- F. Use systematic design processes, allowing for timely input from appropriate disciplines (e.g. construction, operations, etc.), and Company, and allowing for effective evaluation/mitigation of risks and executions of the Work.
- G. Establish appropriate documented controls to manage design evolution.

- H. Develop engineering drawings, specifications and operating procedures in sufficient detail to permit the procurement, manufacture, fabrication, construction, installation, Completions, and operation of the Project.
- I. Ensure that all documentation is available to Company upon request.

11.3 CONSULTANT DUTIES

Consultant shall:

- A. Perform Engineering Services which allow for timely Company review and meets overall Project objectives pertaining to safety, environment, Quality, cost, and schedule.
- B. Manage Contractors and Suppliers to ensure that technical documentation submitted to Consultant are of adequate Quality, in a format that can be readily incorporated into Consultant's relevant documentation, and within the time frame required.
- C. Prepare, submit to Company for acceptance, implement, and maintain the following:
 - Review Plan for Company Documentation
 - Design Verification Plan
 - Engineering Management Plan
 - Operations and Maintenance Plan
 - Design – Construction Management Plan
 - Central Document Register
- D. Take due account of Company's recommendation(s) for all plans and take necessary actions to ensure and accomplish compliance.
- E. Document risk assessments as required in the Risk Management section of the Coordination Procedures.
- F. Assist Company by preparing technical presentations and documents for meetings with governmental regulatory agencies. Consultant participation in such meetings may be requested by Company.
- G. Assist Company by providing necessary supporting documentation as required in connection with applications to governmental regulatory agencies, and other approvals throughout the different phases of the Work.
- H. Provide Design Briefs for all infrastructures with consideration of Company's Basis of Design and Design Philosophies.

- I. Provide relevant documentation with consideration of Company's Basis of Design and Design Philosophies.
- J. Provide technical specifications and drawings for tendering processes for all infrastructures with consideration of Company's Basis of Design, Design Philosophies and Consultant's Design Briefs.
- K. Provide approved for construction drawings and installation information for construction of the Work.

11.4 COMPANY DUTIES

11.4.1 General

Company will:

- A. Maintain oversight for technical and design integrity through Company management T&DI team.
- B. Review and provide comments on Consultant's documentation, including but not limited to, Design Briefs, design criteria, technical specifications, design drawings, construction drawings, as-built drawings and any other technical documentation deemed necessary by Company.
- C. Maintain ownership and provide maintenance and interpretation of the Basis of Design. Any required changes will be managed under Project Change Management described in Section 8.
- D. Maintain ownership and provide maintenance and interpretation of the Design Philosophies for further clarification of the Basis of Design, as deemed appropriate.
- E. Provide input into Consultant's operability plans.
- F. Provide input into Consultant's constructability plans.
- G. Provide the template, Standards, and organizational techniques to be used by Consultant in developing operations and maintenance procedures.

11.4.2 T&DI Interface and Engagement

- A. Company's detailed requirements respecting the protocols that will be implemented for Company's engagement with Consultant to enable Company to perform its technical and design integrity role are contained in the Project Design and Technical Integrity Engagement Plan attached to this Section 11. The plan outlines the various procedures that are to be followed during Consultant's interactions with Company's dedicated T&DI team, established to maintain oversight of technical and design integrity.

11.5 SPECIFIC REQUIREMENTS

11.5.1 Review Plan for Company Documentation

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall develop a Review Plan for Company Documentation which outlines Consultant's plan for reviewing and verifying Company Supplied Data for purposes of identifying errors, omissions, or Changes which would improve the HSE integrity, Quality, or operability of the Work, lower the cost, or improve the schedule.
- B. The Review Plan for Company Documentation shall contain, but not be limited to, the following:
 - Review of available reports, specifications and Nalcor Standards
 - Review of all drawings
 - Review of all calculations
- C. Consultant shall review all Company Supplied Data within 45 calendar days of Company acceptance of the Review Plan for Company Documentation. During this time, Consultant shall continue to progress the design of the Work.
- D. If required, Consultant shall submit a list of questions/clarifications during the 45 calendar day period to Company for resolution. Company shall determine solutions, follow-up actions or any future actions within 15 calendar days.

11.5.2 Design Verification Plan

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall submit a Design Verification Plan which outlines processes and procedures used by Consultant to manage deliverables.
- B. The Design Verification Plan shall contain, but not be limited to, the following:
 - Definition of the checking and verification activities for Consultants engineering data, Subcontractor engineering data and Contractors' and Suppliers' data.
 - Definition of all checks and verification activities for specific document/document packages that are inclusive of and in addition to Consultant's normal self check/internal discipline checking process.
 - Listing of documents/document types to be produced and associated timing including, Design Briefs, drawings, calculations, schedules, reports, requisitions, manuals, etc.
 - Identification of individuals responsible for the verification activities including all third party verification.

11.5.3 Engineering Management Plan

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall prepare an Engineering Management Plan that outlines the various processes, procedures, and methodologies to be utilized by Consultant to manage the Work during: detailed engineering; coordination/package/subcontract engineering; and follow-on/support engineering during construction and Completions.
- B. The Engineering Management Plan shall contain the following:
- Scope of Engineering Services
 - Organizational responsibilities
 - An operability plan which provides, at a minimum, for early input by key operations stakeholders into the design to establish guidance and direction to the design as it relates to operations including accessibility, maintenance, ergonomics, etc.
 - Engineering and design controls, which include the processes used to capture design and other input from Company during design evolution. Other input includes, but is not limited to, HSE, Quality, environmental, construction etc. The frequency of such input shall align with the documentation transmittal frequency as stated in Project Design and Technical Integrity Engagement Plan herein.
 - A technical document control plan that outlines the various procedures that are to be followed to ensure the Work is being implemented using the latest approved technical document, including organization, document development and distribution, tools and systems employed, plan implementation with Subcontractors, Contractors and Suppliers.
 - Design planning/resource management processes with accompanying detail schedule, including the process used to measure physical progress of detailed engineering. A separate process for progress measurement of coordination engineering (e.g., contract management/package engineers) and follow-on engineering for construction and Completions shall be developed, agreed with Company and employed. Consultant shall prepare engineering deliverables milestones for Company's review and acceptance. To the extent possible, the physical progress measurement for detailed engineering shall be based on deliverables completed and be reported against a 100% detailed engineering completion milestone.
 - Approval requirements/turn around cycles for deliverables.
 - Critical issues/decisions list which shall be compiled/updated weekly identifying any issues or decisions which are hindering Consultant in meeting Company objectives. This list will focus on items that, if not resolved, will hinder overall design execution/production of deliverables. The list will be reviewed bi-weekly by Consultant and Company in a formal meeting.

- A list of independent reviews which shall be conducted and lead by Company to evaluate: effectiveness of Consultant procedures and processes in managing the Work, degree of understanding of processes, and compliance with other sections of the Coordination Procedures as they apply to the Services.

11.5.4 Operations and Maintenance Plan

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall prepare an Operations and Maintenance Plan that outlines the various procedures that are to be followed to ensure safe, environmentally conscious and efficient operation of the Project during all key procedures.
- B. The Operations and Maintenance Plan shall consider the following:
- Utilization of Personnel familiar with the design and intended operations of the Project to write the operations and maintenance procedures. The procedures shall be written in a format and template prescribed by Company.
 - Implementation of a sparing philosophy containing recommended operating and capital spares, Supplier data and recommendations, etc.

11.5.5 Support to Company's Technical and Design Integrity Team

Consultant shall fully support Company's T&DI requirements and activities, meeting all requirements as outlined in the Project Design and Technical Integrity Engagement Plan attached herein. In particular Consultant shall:

- Extensively interact with Company's T&DI management team as part of its ongoing activities for information and consultation support to ensure T&DI requirements are being met.
- Provide opportunity for timely review and comment by Company's T&DI management team for all design criteria, Design Briefs, and technical documentation provided by Consultant. Such review and subsequent comments shall in no way result in design liability nor responsibility by Company.
- Develop and manage detailed monthly deliverable schedule indicating T&DI review durations for each deliverable, to be reviewed and accepted by Company's T&DI management team.
- Obtain required agreement from Company's T&DI management team for all design codes and Standards employed and for any Consultant proposed deviations from design codes, Standards, specifications and procedures.
- Provide opportunity for Company's T&DI team to, at its discretion, utilize the services and organize and direct the activities of independent engineers and

technical panels to review project elements on its behalf, including engineering, throughout Project execution.

- Provide opportunity for Company's T&DI management team to request, and Consultant to provide, design verification documentation as required including, as a minimum, requirement, assumptions, detailed calculations and analysis, and detailed drawings.

11.5.6 Design - Construction Management Plan

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall prepare a Design - Construction Management Plan that outlines the various plans and procedures that are to be followed to ensure the close cooperation between Consultant's and Company's design and construction teams.
- B. The Design – Construction Management Plan shall consider the following:
 - Organizational responsibilities to manage the interface between design and construction.
 - Construction stakeholder's endorsement of drawing requirements to support construction, and plans and procedures for delivering required documents to construction within their required need dates at the specified Quality.
 - A constructability program which provides, at a minimum, for early input by key construction stakeholders into the design to establish guidance and direction to the design as it relates to construction: execution steps, sequence, productivity enhancements, standardization, etc.
- C. Consultant shall implement its constructability program, as endorsed by Company.

Attachment
Guidance Document

Project Design and Technical Integrity Engagement Plan

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1.0 PURPOSE

Consultant shall implement this procedure for the Project. The purpose of this procedure is to:

- Define a formal process to enable Company to provide technical and operational input, and to review and comment on Consultant's Services to ensure Project is designed and constructed to Company's requirements;
- Define a formal process to enable Company to provide technical and operational review of and comment on Contractor's Work to ensure Project is designed and constructed to Company's requirements;
- Define a formal review process that ensures Consultant's and Contractor's technical deliverables are of a high quality and respect Exhibit 5, Section 5 – Quality Management; and
- Ensure that Company provides all of its initial technical documentation and requirements to Consultant on a timely basis.

While this procedure is intended to ensure formal technical and operational input, review and comment by Company throughout all stages of the Project; moreover, it encourages regular and informal interface between Consultant, Contractor and Company Personnel from the earliest stages of design, through construction and Completions and into final Project completion.

2.0 SCOPE

This procedure applies to all Consultant Services and Contractor Work including initial Project technical documents supplied by Company.

3.0 OBJECTIVES

The objectives of this procedure are to:

- Ensure that Consultant reviews and understands all Company provided technical documentation including Basis of Design, Design Philosophies, and applicable technical reports and designs completed prior to the start of Project;
- Ensure that all Consultant's designs, design criteria, Design Briefs, technical specifications and drawings reflect Company's technical and operational requirements;
- Ensure that all tender documents reflect Company's technical and operational requirements;
- Ensure that all Contracts reflect Company's technical and operational requirements;
- Ensure that all Contractor's designs, design criteria, Design Briefs, technical specifications, drawings, and models reflect Company's technical and operational requirements;
- Ensure that all Contractor's tests including Factory Acceptance Tests, reflect Company's technical and operational requirements;

- Ensure that all Consultant's and Contractor's construction drawings reflect Company's technical and operational requirements;
- Ensure that all Consultant's and Contractor's design Changes reflect Company's technical and operational requirements;
- Ensure that all Completions activities reflect Company's technical and operational requirements;
- Ensure that all Project as-built and close-out documentation reflect Company's technical and operational requirements; and
- Ensure that a formal Engineering Query process is developed and implemented.

4.0 RESPONSIBILITIES

4.1 CONSULTANT

Consultant shall:

- Receive and review all technical documentation and information provided by Company and develop a Review Plan for Company Documentation as per Section 11.5.1;
- Provide access to Company to its Services specifically initial design, design criteria, Design Briefs, technical specifications, tender drawings, Contract documents, construction drawings, models, tests, construction, Completions, as-built documentation and close-out documentation for informal technical and operational input by Company;
- Provide documentation at all stages of its Services, specifically design criteria, Design Briefs, technical specifications, tender drawings, Contract documents, construction drawings, Completions, as-built documentation and close-out documentation for formal technical and operational review and comment by Company. Such documentation shall be provided to Company typically at the 50/80/100% completion range which corresponds to the interdiscipline checks (IDC), approved for tender and approved for construction (AFC) versions or as otherwise agreed with Consultant.
- Provide documentation on Contractor's Work, specifically design criteria, Design Briefs, technical specifications, fabrication drawings, construction drawings, shop drawings, Factory Acceptance Tests, models, tests, Completions, as-built documentation and close-out documentation for formal technical and operational review and comment by Company to Consultant. Such documentation shall be provided by Consultant to Company at agreed intervals which shall align with Consultant's review periods for such documentation.
- Provide immediate on-line access to Company for updated technical codes and Standards that Consultant uses in the performance of its Services.
- Develop and implement a formal Engineering Query process.

4.2 COMPANY

Company will:

- Prepare and approve a Basis of Design for the Project. The Basis of Design is reflected in Exhibit 2, Project Description.
- Prepare and approve Design Philosophies on specific aspects of Project based on the Basis of Design that require further clarification to define Company's requirements. Company will provide all Design Philosophies to Consultant on a timely basis;
- Provide all relevant technical documentation and information related to Project that has been completed and/or is in progress to Consultant at start of Project;
- Provide informal technical and operational input to Consultant at all stages of its Services, specifically initial design, design criteria, Design Briefs, technical specifications, tender drawings, Contract documents, construction drawings, models, tests, construction, Completions, as-built documentation and close-out documentation;
- Provide formal technical and operational review and comment to Consultant at all stages of its Services, specifically design criteria, Design Briefs, technical specifications, tender drawings, Contract documents, construction drawings, Completions, as-built documentation and close-out documentation;
- Provide formal technical and operational review and comment to Consultant related to Contractor's Work, specifically design criteria, Design Briefs, technical specifications, fabrication drawings, construction drawings, shop drawings, Factory Acceptance Tests, models, tests, Completions, as-built Documentation and close-out Documentation;
- Conduct a formal review of Consultant's technical performance on a quarterly basis; and
- Respond to formal Engineering Queries from Consultant within 15 calendar days.

5.0 SPECIFIC RESPONSIBILITIES

5.1 CONSULTANT

5.1.1 TECHNICAL MANAGER

Technical manager shall:

- Ensure all Company supplied documentation is reviewed and understood as per Section 11.5.1, Review Plan for Company Documentation;
- Provide adequate staff to complete Services on a timely basis;
- Ensure access to relevant documentation to enable ongoing informal technical and operational input by Company's T&DI team;
- Ensure timely transfer of documentation to allow formal technical and operation review by Company as noted above; and

- Meet with Company's T&DI manager on a timely basis but not less than once per week on a formal basis for a weekly technical and design review status meeting along with all Company's and Consultant's leads. Consultant shall record minutes of such meetings for review and acceptance by Company, specifically T&DI manager. Company and Consultant shall agree, in advance, as to persons attending these weekly meetings but typically they will include all relevant technical leads from Company and Consultant.

5.1.2 TECHNICAL DISCIPLINE LEADS

Technical discipline leads shall:

- Provide access to relevant documentation to enable ongoing informal technical and operational input by Company's T&DI team;
- Provide documentation to Company on a timely basis related to its Services for formal technical and operational review and comment by T&DI leads as per Section 16;
- Provide documentation to Company on a timely basis related to Contractor's Work for formal technical and operational review and comment to Consultant by T&DI leads as per Section 16; and
- Meet with relevant Company's leads on a timely basis but not less than once per week on a formal basis with all other Company's and Consultant's technical leads and managers for the weekly technical and design review status meeting as noted in 5.1.1., above.

5.2 COMPANY

5.2.1 TECHNICAL & DESIGN INTEGRITY (T&DI) MANAGER

T&DI manager will:

- Provide the current Basis of Design to Consultant at the start of Project. All Changes to Basis of Design will be provided to Consultant under Section 9, Changes to the Services;
- Provide all Design Philosophies to Consultant on a timely basis. All Changes to Design Philosophies will be provided to Consultant under Section 9, Changes to the Services;
- Provide all relevant technical information related to Project that has been completed and/or is in progress, to Consultant at start of Project;
- Provide adequate staff to provide informal technical and operational input to Consultant on a timely basis during all stages of its Services;

- Provide adequate staff to provide formal technical and operational review and comment to Consultant related to its Services within the timelines outlined in this section. Such review and comment will be completed to ensure that Consultant's Services reflect the Company's technical and operational requirements only and should, at no time, be taken as approval of Consultant's Services;
- Provide adequate staff to provide formal technical and operational review and comment to Consultant related to Contractor's Work within the timelines outlined in this section. Such review and comment will be completed to ensure that Contractor's Work reflects the Company's technical and operational requirements only and should, at no time, be taken as approval of Contractor Work and Consultant Services;
- Meet with Consultant's technical manager on a timely basis, but not less than once per week on a formal basis, for a weekly technical and design review status meeting along with all Company's and Consultant's leads. Consultant shall record minutes of such meetings for review and acceptance by Company. Company and Consultant shall agree, in advance, as to persons attending these weekly meetings but typically they will include all relevant technical leads from Company and Consultant; and
- Conduct a formal review of Consultant's technical performance on a quarterly basis. The results of such a review will be provided to Consultant in a formal report and discussed, as required, in a formal meeting. Consultant shall record minutes of such meetings for review and acceptance by Company, specifically T&DI manager.

5.2.2 T&DI DISCIPLINE LEADS

T&DI discipline leads will:

- Provide informal technical and operational input to Consultant at all stages of its Services on an ongoing basis;
- Provide formal technical and operational review and comment to Consultant related to its Services on a timely basis but not less than 15 calendar days following formal receipt of documentation as per Section 16. Should Consultant not receive comments from Company by close of business on the 15th day, Consultant shall proceed with its Services. The period of review, particularly for items of re-work, may be reduced by mutual agreement between Consultant and Company on an item by item basis;
- Provide formal technical and operational review and comment to Consultant related to Contractor's Work on a timely basis but not less than 15 calendar days following formal receipt of documentation from Consultant as per Section 16. Should Consultant not receive comments from Company by close of business on the 15th day, Consultant shall proceed with its Services. The period of review, particularly for items of re-work, may be reduced by mutual agreement between Consultant and Company on an item by item basis ; and

- Meet with relevant Consultant's leads on a timely basis but not less than once per week on a formal basis with all other Company's and Consultant's technical leads and managers for the weekly technical and design review status meeting as noted in 5.1.1., above.

SECTION 12 – CONSTRUCTION MANAGEMENT

12.1 SCOPE

This section describes Company's minimum coordination requirements and expectations related to the provision of Construction Management Services by Consultant and the construction of the Work by Contractors.

Section 13 in the Exhibit 5 contains the coordination procedure for Completions activities. The requirements contained therein are not repeated in this Section 12.

12.2 OBJECTIVES

In providing the Construction Management Services, Consultant shall:

- A. Ensure all of its construction management scope requirements, as provided in Exhibit 3, as well as all construction management requirements documented elsewhere in the Agreement are addressed in its coordination activities;
- B. Develop and implement coordination protocols that are focused on achieving best value for the Project;
- C. Develop and foster a pro-active approach and culture respecting construction execution planning and implementation;
- D. Espouse a culture of open communication with Company during the construction of the Work;
- E. Ensure communication channels between Company and Consultant are agreed, documented, implemented and regularly assessed for effectiveness;
- F. Ensure appropriate communication protocols among Consultant, Company and all Contractors are developed, implemented and regularly assessed for effectiveness;
- G. Ensure that formal mechanisms are put in place to ensure that all construction related requirements and expectations of the Agreement are, as applicable, fully included and clearly documented in construction Contracts and communicated to all affected Subcontractors, Contractors and Suppliers;
- H. Ensure that all construction-related requirements as described in item G above are fully implemented by all applicable Subcontractors, Contractors and Suppliers, and regularly assessed for compliance and effectiveness;

- I. Ensure mechanisms are developed and implemented for formal Company engagement in the development of construction Contracts and the execution of Work;
- J. Ensure mechanisms are developed and implemented to formally address Company's ongoing requirements and recommendations related to construction, and to fully support Company's efforts in this regard;
- K. Ensure its coordination processes, procedures and management plans take full consideration of risk, cost, schedule, quality, and health, safety and environment (HSE) aspects related to construction activities.

12.3 CONSULTANT'S DUTIES

With respect to Company's minimum coordination requirements and expectations for the provision of Construction Management Services by Consultant and the construction of the Work by Contractors, Consultant shall:

- A. Prepare and implement a formal Construction Management Plan as described in paragraph 12.5.1 herein;
- B. Prepare and implement Site-specific construction management procedures as listed in paragraph 12.5.2 herein;
- C. Fully comply with and support Company HSE policies and procedures in its development and implementation of its construction management plans and procedures;
- D. Support Company construction and installation management activities related to the Work;
- E. Fully comply with and support Company commitments made regarding aboriginal groups, including those included in any impacts and benefits agreement or other agreements made by Company with aboriginal groups;
- F. Fully comply with and support Company commitments made regarding diversity as stipulated in Company diversity policies and procedures.

12.4 COMPANY'S DUTIES

With respect to construction coordination requirements Company shall:

- A. Provide Company's organization with details on the key interfaces with Consultant's organization;
- B. Provide Consultant with Company communication requirements;

- C. Work with Consultant to establish common objectives for providing the Services and implementing the Work;
- D. Provide Consultant with Company's policies and procedures which Consultant is required to comply with, and support Consultant in the integration and inclusion of these into the provision of Services and in the construction Contracts;
- E. Provide further insights and details regarding the specific requirements provided in the Agreement;
- F. Review and accept Consultant's Construction Management Plan(s) and procedures.
- G. Provide Company's Work Protection Code and necessary training for Consultants, Subcontractors, Contractors and Suppliers as required to complete Services and Work as per Section 13.

12.5 SPECIFIC REQUIREMENTS

12.5.1 Construction Management Plan

Within the time specified in Table 1.1, Consultant will be required to prepare and submit a preliminary Construction Management Plan for Company review and acceptance.

The preliminary Construction Management Plan shall be predicated on Company's Work Breakdown Structure, on Consultant's Execution Plan, on Consultant's Overall Contracting Plan, and on individual plans for the implementation of the Work. It shall identify the construction scope of work for each potential Contractor and/or Supplier. The Construction Management Plan shall describe how Consultant intends to manage and monitor the Contractor(s) and Supplier(s) performing construction of the Work, and shall fully describe how all project management functions, particularly Quality management, will be carried out. Activities to be performed in the pre-construction phase will be included.

The Construction Management Plan will address and incorporate all the objectives presented in paragraph 12.2 herein with particular emphasis on communication protocols among all stakeholders.

The preliminary Construction Management Plan shall be further developed as Contracts are executed with Contractors and Suppliers. The Construction Management Plan will incorporate and be supplemented by individual construction execution plans as developed and agreed in conjunction with Contractors/Suppliers, Consultant and Company.

12.5.2 Site Specific Plans

Site specific plans required to be prepared by Consultant include the following:

- a) Site Communications Plan
- b) Site Security and Access Control Plan
- c) Site Evacuation Plan
- d) Emergency Response Plan
- e) Fire Protection Plan
- f) Storm Protection Plan
- g) Medical Facilities and Personnel Plan
- h) Insurance Plan (facilities, autos, liability , third party , etc)
- i) Site Area Usage Plan (allocation)
- j) Traffic Management Plan
- k) Heavy Transport and Lifting Plan, including haul roads
- l) Warehousing/Laydown Plan
- m) Material Preservation Plans and Procedures
- n) Positive Material Identification Plans and Procedures
- o) Temporary Electric Power Generation and Distribution Plan
- p) Document Control and Distribution Plan
- q) File Index and Document Retention Plan
- r) Customs Clearance Plan
- s) Site Induction Plans and Procedures including cultural awareness, HSE and other site /camp rules(Labor and staff)
- t) Organizational Plan (Org Chart/Bar Charts/Duty Rotations)
- u) Team Building / Alignment Plan (internal and with Contractors/ Suppliers)
- v) Public Affairs Plans
- w) Site Labor Agreement or similar/special labor agreement(s)
- x) Permit Plan- for those specific to Consultant (regulatory permits)
- y) Training Plan
- z) Audit Plan
- aa) Permit Plan – for those specific to Consultant (regulatory permits)
- bb) Training Plan
- cc) Audit Plan
- dd) Surplus Management and Disposal
- ee) Supplier Representative Management Plan
- ff) Field Procurement Plan
- gg) Logistics and Materials Management Plan

Each plan shall be a concise written description of the organization, activities, and procedures for effectively carrying out the respective area of the Work. Consultant will ensure that all plans are integrated and consistent for each area of activity and over the Work as a whole and interface with Company policies and procedures as necessary.

Each Site specific plan shall include, but not be limited to, the following information:

- a) Procedures for the performance of the respective activity;
- b) Consultant's organization of the activity, including organization charts and identification of the persons assigned to perform those activities;
- c) Schedules and resources required to execute those activities;
- d) Interfaces with and engagement of Company;

The Site specific plans will address and incorporate all the objectives presented in paragraph 12.2 herein with particular emphasis on communication protocols among all stakeholders.

The schedule for the development and implementation of each Site-specific plan shall be aligned with Consultant's detailed Project schedule(s) and shall be agreed with Company.

SECTION13 - PROJECT COMPLETIONS**13.1 SCOPE**

This section sets forth Company's minimum requirements for the Completions activities which include Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations.

13.1.1 DEFINITION

- Commissioning Check List (CCL) – the documentation approved by Consultant to record all Commissioning Static Checks and results carried out during commissioning.
- Commissioning Procedure (CPR) – detailed step by step description of relevant multi-discipline, Dynamic Commissioning / System Commissioning activities carried out to prove the design and suitability for operation of a system or part system.
- Commissioning Static Checks – shall mean all live / energized tests that are carried out after a section of Work has reached Mechanical Completion. These shall be completed in compliance with the specifications at Contractors / Suppliers facilities, factory tests and during installation and/or construction as soon as it is safe for commissioning Static Checks to commence initially on a single discipline basis.
- Completions – shall mean all activities involved in Mechanical Completion, Preservation, handover for commissioning, commissioning and turnover to Operations.
- Dispatch Dossier – shall mean those documents required, as a minimum, to accompany goods released to Site from Contractors / Suppliers and fabricators. Procured Goods shall not be dispatched without Dispatch Dossier.
- Dynamic Commissioning / Systems Commissioning – shall mean commissioning activities which simulate operations of a complete system or part system. These tests shall, as near as possible, be at full operating conditions in order to carry out operational performance tests to verify that the system / equipment performs in accordance with the design criteria, together with the recording of such tests. Such Dynamic Commissioning / Systems Commissioning shall be sufficient to allow systems, part system and/or equipment to be certified, turned over to Operations by the RFO team and rapidly brought into operational service by Operations, if not already operational.
- Inspection Test Records (ITR) – the documentation approved by Consultant that defines all procedural checks and tests to be carried out by Contractor / Supplier during Mechanical Completion.

- Livening Up Notice (LUN) – a notification to all involved parties at Site that commissioning will start and that all further work on a particular system or part system shall be subject to permit to work procedures. The LUN shall contain descriptions and marked up drawings of which particular system or part system that will become live during commissioning. The method of work permit shall be the WPC established by Company or the Contractor’s Project Safety Management Plan if its requirements exceed the WPC.
- MC Handover – the formal transfer of MC documentation and responsibility for part systems, systems, area / building or the complete facility defined on the MCC, from Consultant to RFO.
- Mechanical Completion (MC) – shall reflect non-live / non-energized completion of specified systems and part systems in the specification for Work, while in storage and during installation or construction to the latest design drawings, specifications and Standards.
- Mechanical Completion Certificate (MCC) – Issued by Contractor or Supplier to RFO upon successful MC of a single discipline within a system or part system, thus allowing commencement of Commissioning Static Checks.
- Operations – Company or its nominated representative.
- Part System Limits – clearly defined stand alone scopes of work, which can be single or multi-discipline.
- Preservation – shall mean those activities that are necessary to prepare the systems, part systems or equipment described in the specification before, during or after delivery, during MC and commissioning.
- Project Completion System (PCS) is a computerized system for tracking status of MC and commissioning by individual tag, MC Pack or commissioning pack. This system is used to verify MC and commissioning of all Project equipment at Suppliers facilities and /or Site. The PCS operating software shall be provided by Consultant and it shall be the responsibility of each Contractor / Supplier to supply engineering data to the Consultant. This data shall be updated by the responsible Contractor and/or Supplier on an ongoing basis.
-
- Punch List – a list of incomplete scope and / or deficiencies agreed between Contractor offering the equipment, system, or part system and RFO receiving the equipment, system, or part system.

- Punch List A item – means that the deficiency noted is significant and is preventing the MC Handover or RFO Turnover process.
- Punch list B item – means that the deficiency is minor in nature and is not preventing the MC Handover or RFO Turnover process.
- Ready for Operations (RFO) – a team, lead by Company, consisting of qualified personnel from Company, Consultant, Contractors and Suppliers, who shall provide commissioning services of systems and part systems under technical supervision and direction of Consultant.
- RFO Turnover – the formal transfer of documentation and responsibility for operations and maintenance of part systems, systems, equipment, area / building or complete facility defined on the TOC, from RFO to Operations.
- Specification Compliance Sign-off List (SCL) - An itemized list prepared by Suppliers and/or Contractors, for each system or part system, highlighting all its technical design parameters and specifications needed for ease in verification and sign-off by Consultant and RFO.
- Turnover and Commissioning Package (TCP) - Detailed document outlining all testing procedures and functional requirements for each system or part system, which are completed or near Completions, to verify its performance in accordance to design specifications.
- Turnover Certificate (TOC) – Issued by RFO to Operations upon successful completion of system or part system commissioning activities, leaving the system or part system ready for Operations.
- Work Protection Code (WPC) - A code of practice outlining principles and methods of safe work on electrical, mechanical and associated equipment that provides formal assurance that sources of hazardous electrical and/or mechanical energy on specified equipment has been removed. It is designed to constitute a set of minimal recommended procedural and safety requirements for a safe working environment for all workers authorized to perform work on electrical, mechanical and associated equipment.

13.2 MAIN PRINCIPLES

The following are the main principles applicable to achieving a successful Completions process:

- Ensure all involved parties fully understand and complete their scope of Work.
- All activities to be carried out in a safe, efficient and structured manner.
- Accurately pre-populated and strictly controlled PCS database including consistency of input across all users.
- MC and commissioning, inspections, test and checks activities only carried out once with all necessary participants present.
- No carryover from one phase of the work to the next.
- Equipment storage and Preservation requirements to be strictly adhered to and documented.
- To complete MC System Handover and RFO Turnover in the correct sequence and as per the agreed MC / commissioning integrated schedule.
- To respect Project Milestone Schedule.
- Ensure that all commissioning system limits to define system and part systems are established.

13.3 RESPONSIBILITIES

The responsibilities with respect to Project Completions are shown in Table below.

| Activity | Company | Engineering Procurement (Consultant) | Contractor / Supplier | Construction Management (Consultant) | RFO | Operations |
|--|----------------|---|------------------------------|---|------------|-------------------|
| Prepare Project Completions Philosophy | X Accept | X | | | | |
| Prepare MC, Commissioning and Preservation guidelines | X Accept | X | | | | |
| Prepare Mechanical Completion (MC) Manual | X Accept | X | | | | |
| Prepare Commissioning Manual | X Accept | X Lead | X | | | |
| Prepare Preservation Manual | X Accept | X Lead | X | | | |
| Prepare Guidelines for PCS | X Accept | X | | | | |
| Procure/provide the PCS database | X Accept | X | | | | |
| Populate the PCS database with the tag numbers/descriptions and allocate MC test records for each tag in the | X Accept | X | | | | |

| Activity | Company | Engineering Procurement (Consultant) | Contractor / Supplier | Construction Management (Consultant) | RFO | Operations |
|---|-----------------|--------------------------------------|-----------------------|--------------------------------------|-----------------|------------|
| appropriate MC Package | | | | | | |
| Deploy the PCS at each site (if applicable) and develop procedures for updating the PCS database and manage the system | X Accept | X | | | | |
| Include the MC, Preservation and Commissioning specification in all applicable Contracts | | X | | | | |
| Provide Preservation procedures | | | X | | | |
| Perform Initial preservation and packaging for shipment | | | X | | | |
| Implement Preservation, MC and Commissioning specifications with Suppliers/Contractors and ensure specification compliance | | X | | | | |
| Perform Preservation, MC , Specification Compliance checks and Commissioning responsibilities as defined in the specifications provided in Contract & prepare Dispatch Dossiers | | | X | | | |
| Complete SCL for all supplied systems or part systems | | | X | X Verify | X Check | |
| Establish Preservation routines and carry out maintenance preservation up to MC Handover of system | | | X | Check & Verify | | |
| Carry out preservation after MC Handover of system up to RFO Turnover of system as required | | | | | X | |
| Develop standardized MC and Commissioning forms for Contractors and Suppliers. Forms, such as, TOC, MCC, CCL, SCL, LUN, ITR, ETC. | | | | X | X Accept | |
| Carry out MC activities, document on Standardized MC forms. Prepare Punch Lists prior to MC handover | | | X | X Lead | | |
| Prepare MC Handover packages, Punch outs prior to MC Handover to RFO and rectify any MC Punch List items | | | | X | | |
| Develop Commissioning plan and identify MC need dates for Work | | | | X | Accept | |
| Develop construction plan and area to system transition plan to achieve MC need dates | | | | X | | |
| Prepare readiness process and | | | | X | X | |

| Activity | Company | Engineering Procurement (Consultant) | Contractor / Supplier | Construction Management (Consultant) | RFO | Operations |
|--|-----------------|---|------------------------------|---|-----------------|-------------------|
| identify/define milestones | | | | | Accept | |
| Implement readiness process. | X | | | X Lead | X | X |
| Provide Commissioning spares recommendation | | | X | | | |
| Review Commissioning spares list from Supplier and agree on spares to be ordered | X Accept | X | | X Review | | |
| Order Commissioning spares | | X | | | | |
| Preserve and store Commissioning spares | | | | X | | |
| Provide operating spares recommendation | X Accept | X Lead | X | | | |
| Review Operations spares list (additional) from Supplier and agree on spares to be ordered | | | | | X Lead | X Accept |
| Order Operations spares (additional) | | | | | | X |
| Define Commissioning pack testing limits and mark up limits on drawings | | | X Set limits | X Lead | X Accept | |
| Specify Commissioning tools, test equipment, consumables including gaskets, flanges, etc | | | X | X Lead | X Accept | |
| Populate Commissioning PCS database with Commissioning packs, tag numbers and Commissioning Checklists for Commissioning Static Checks | | | X | X Lead | X Accept | |
| Prepare Dynamic Commissioning procedures | | | X | X Lead | X Accept | |
| Provide Operations personnel to participate in the RFO team | | | | | | X |
| Provide labor assistance to support the RFO/Commissioning activities | | | X | X | X Lead | X |
| Prepare and administer the Livening Up Notice and Permit to Work system | | | | X | X Accept | |
| Conduct daily safety meeting meetings prior to Commissioning activity | | | | X Participate | X Lead | |
| Establish Contracts for Supplier services (Project phase) with options for Operation phase | X Accept | X | | | | |
| Establish Contracts for Supplier service (Operations phase) | | | | | | X |
| Call out Supplier for Project work – including Commissioning | | | | | X | |

| Activity | Company | Engineering Procurement (Consultant) | Contractor / Supplier | Construction Management (Consultant) | RFO | Operations |
|---|----------------|---|------------------------------|---|-------------|-------------------|
| Prepare Performance test procedures and testing limits | | | X Set Limits | X Lead | X Accept | |
| Plan, schedule and conduct Commissioning Static Checks on equipment, systems or part systems and document on standardized Commissioning forms | | | X | X Provide Support Services | X Lead | X |
| Plan, schedule and conduct Dynamic Commissioning / System Commissioning on systems or part systems and document on standardized Commissioning forms | | | X | X Provide Support Services | X Lead | X |
| Plan and conduct performance test and determine acceptability of system performance | | | X | X Provide Support Services | X Lead | X |
| Prepare RFO Turnover packages to Operations, punch out system prior to Turnover and rectify any RFO punchlist items. | | | | X Provide Support Services | X | |
| Conduct Punch outs and prepare Punch Lists prior to RFO turnover | | | | X Lead | X Accept | |
| Rectify system design deficiencies, including those discovered during performance testing | | | X | X Lead | X Accept | |
| Prepare as-built marks up to the MC handover of a system | X Accept | | X | X Lead | | |
| Prepare as-built mark ups during Commissioning up to RFO Turnover of systems | X Accept | | | X | | |
| Update engineering drawings, data systems to reflect as built markups from Construction and RFO | X Accept | X | | | | |
| Provide hard copy and digitized maintenance and operating manuals | X Accept | | X | X Lead | | |
| Provide hard copy and digitized final as-built design drawings | X Accept | X | | | | |

13.4 MECHANICAL COMPLETION

13.4.1 MC RESPONSIBILITIES SHALL INCLUDE:

- Consultant shall provide the MC specification and supply the MC forms and procedures to Supplier.
- Supplier shall be responsible to carry out the MC inspections and tests and document these on the forms provided.
- Consultant shall check and verify that the MC forms, allocated to Supplier, have been completed correctly and the MC Work is carried out prior to a shipping release.
- Supplier shall be responsible to complete a Dispatch Dossier which would contain the MC documentation along with any handling and storage requirements.

13.4.2 MECHANICAL COMPLETION (MC) AT SUPPLIERS' FACILITIES

The MC for Suppliers shall be stipulated in general specification for MC which shall be included in all Contracts. MC general specification is applicable, but not limited, to the following type of supply:

- Supplier skid mounted packaged equipment, such as compressors, pumps, fans and driers. These skids contain piping, instrument, electrical and mechanical equipment and in many cases have a local control cabinet which is wired and connected to the primary and final elements.
- Control panels.
- Switchgear and control centers.
- Transformers and electrical equipment.
- Electrical breakers, lightening arrestors and disconnects
- Generators and generator components
- Exciters
- Control monitoring and communication equipment
- Turbines and turbine components
- Governors
- Hydraulic gates
- Materials for dams, dykes and structures
- Penstocks
- Cranes and hoisting machinery
- Diesel generators
- Rotating machinery skid mounted.
- Structural steel, concrete and building supplies
- Transmission equipment

13.4.3 MC AT SITE

The MC requirement at the Site shall be completed in accordance with the installation drawings, Standards, codes and to good construction practices. The MC activities shall be carried out in accordance with the MC procedures and documented on MC forms

contained within the MC manual. The MC confirmations for the key disciplines shall include, but not limited to:

Structural Discipline

- Visual inspection for complete and correct installation in accordance with the latest drawings.
- Alignment checks.
- Dimensional control inspections and tests.
- Verification that the specified NDE/NDT checks have been performed.

Mechanical Discipline

- Visual inspection of equipment for correct and completed installation in accordance with the latest drawings.
- Internal inspections of tanks, exchangers, fans, ductwork, etc.
- Alignment of rotating machinery.
- Alignment of turbines, generators and components.
- Correct assembly of turbine and generator components.
- Visual inspection of the generator ventilation systems.
- Load integrity of lifting machinery.
- Inspections and verification of correct and complete installation of pipe work.
- Verification of coatings.
- Verification that the specified NDE/NDT checks on piping, penstocks, etc. have been performed
- Verification of color coding for pipes.
- Visual inspections of fire protection layout.
- Numbering identification of all mechanical components.
- Visual inspection of insulation and protective jackets over piping.
- Verification of alignment and seals of hydraulic gates.
- Flushing of lube and hydraulic oil systems to a specified standard.
- Verification of pressure vessel registration and CRN number.

Electrical Discipline

- Visual inspection of equipment for correct and completed installation in accordance with the latest drawings.
- Verification of electrical cable pulling, glanding, termination and testing.
- Numbering identification of all wiring and electrical equipment.
- Insulation and continuity of cables.
- Insulation and continuity testing of generators, transformers, motors, panels, distribution boards and other electrical equipment.

- Transformer oil analysis.
- Exciter, generator, transformer and governor checks.
- Grounding checks.
- Motor rotation checks.
- Heat tracing inspections and tests.
- Lighting circuit testing and illumination checks.
- Point-to-point test of cables.
- Verification of correct classification of electrical equipment in hazardous areas.

Transmission Discipline

- Visual inspection of overhead systems for complete and correct installation in accordance with the latest drawings and tables.
- Visual inspection of concrete and earth structures for correct and completed installation in accordance with the latest drawings.
- Verification of mapping and topographical controls and monitoring installations.
- Verification of accuracy and secure storage of geotechnical data.
- Verification of tower numbering and safety signage.
- Verification of underwater dc cable supports.
- Coating checks.
- Alignment checks.
- Dimensional control inspections and tests.
- Verification that the specified NDE/NDT checks have been performed
- Grounding, insulation and phasing checks.
- Verification of structure list.

Instrument Discipline (Includes telecommunication)

- Calibration and testing of instruments and telecommunication devices.
- Visual inspection of equipment for correct and completed installation in accordance with the latest drawings.
- Verification of electrical cable pulling, glanding, termination and testing.
- Insulation and continuity testing of instrument / telecommunications cabling.

Civil Discipline

- Visual inspection of concrete and earth structures for correct and completed installation in accordance with the latest drawings.
- Visual inspection of layout of the underwater tunnels for correct and completed installation in accordance with the latest drawings.
- Verification of functionality of structural and architectural features (such as gates, doors, windows).

- Verification of surface conditions and treatments on excavations, concrete and earth structures, and access roads.
- Visual inspection of downstream side of dams and structures for water leaks.
- Verification of drainage facilities (weirs, culverts, ditches, etc.).
- Verification of mapping and topographical controls and monitoring installations.
- Verification, calibration, base-lining and testing of geotechnical monitors.
- Verification of accuracy and secure storage of geotechnical data.
- Verification of correct and sufficient site safety signage during and after construction.

Environmental Discipline

- Visual inspection of environmental mitigations.
- Monitoring and verification of aquatic habitat performance and productivity.
- Monitoring and verification of terrestrial habitat performance and productivity.
- Verification of fish passage facilities (culverts).
- Visual inspection of construction areas for waste spills and cleanup.

13.5 PRESERVATION

13.5.1 PRESERVATION AT SUPPLIERS' FACILITIES

The Preservation requirements at Suppliers' facilities shall be in accordance with the Project Preservation specification contained within each of the Contracts. The Preservation requirements shall include the following:

- All equipment and devices shall be protected for shipment.
- Supplier shall perform the initial Preservation and document the Preservation carried out.
- The long term (24 month) Preservation procedure shall be provided by the Supplier with maintenance and frequency of Preservation checks to be performed.
- The type of storage facility for the equipment shall be identified by the Supplier, eg – outside storage, unheated warehouse, heated warehouse, air conditioned, etc.
- The Preservation documentation shall be included in the Dispatch Dossier and shall accompany the shipment.

13.5.2 PRESERVATION AT SITE

The Preservation requirements at Site shall be in accordance with the Preservation manual and the Preservation specification contained within each of the Contracts. The Preservation requirements shall include the following:

- Contractor shall be responsible for the preservation and protection of all free issue and Supplier provided skid packages, equipment, material and devices.

- Preservation procedures provided by the Supplier and the Preservation requirement in the specifications outlined by Consultant shall be followed.
- Preservation documentation and records of Preservation maintenance carried out shall be kept by Contractor and available for review by Consultant.
- Contractor shall energize any space heaters on receipt of equipment.
- Contractor shall establish a Preservation team to carry out the Preservation requirement and to establish the Preservation program up to the MC Handover of the equipment or system to RFO. Should RFO require continuation of the Preservation then this will be noted and a request to reinitiate the Preservation by Contractor.
- An inspection / check of Preservation, damage shall be carried out by Contractor on receipt of equipment, materials, skid packages, fabricated elements and subassemblies. Deficiencies shall be noted and brought to the attention of Consultant for resolution.
- Contractor shall store the equipment and material in the stipulated warehouse facility until ready for installation.

13.6 COMMISSIONING

13.6.1 COMMISSIONING AT SUPPLIERS' FACILITIES

The commissioning requirements at Suppliers' facilities shall be in accordance with the Factory Acceptance Testing (FAT) specification. Commissioning at Suppliers shall not be considered to be the final system commissioning, which can only be carried out when the equipment being tested is installed at Site and is connected up to the rest of the facility as per the system design.

The FAT provides some assurance that the equipment meets the design requirements and can meet the performance requirements. A successful FAT is one step on the way to a successful Mechanical Completion process. A representative from Consultant, RFO and / or Operations shall attend the FAT of key pieces of equipment, such as control system configuration tests, large rotating machinery, emergency generators, turbines, transformers, compressors, exciters, governors, electrical equipment, control and monitoring systems. Consultant shall discuss with RFO the FAT schedule to ensure representation from RFO and/or Operations team. The FAT and the inspections, tests and readings taken shall be documented and made available to RFO as part of the Supplier documentation provided with the system and part system equipment. SCL for each system or part system prior to Commissioning of such system and part systems shall be submitted to RFO for confirmation. Consultant shall allocate a responsible package engineer for each package who is responsible for the design and technical quality.

13.6.2 COMMISSIONING AT SITE

The commissioning activities at Site shall be carried out by RFO and shall include:

- Commissioning Static Checks.
- Dynamic Commissioning / System Commissioning.

Commissioning Static Checks shall be carried out by RFO and shall be documented on CCL. The CCLs shall be included in the commissioning manuals and shall be discipline based. Commissioning Static Checks include, but not limited to:

- High voltage injection test.
- Power on tests.
- Relay tests.
- High potential tests.
- Loop checks and logic function tests.
- Load tests.
- HVAC air flow tests.
- Pump tests.
- Battery system backup tests.
- Compressed air systems test.
- Alarm settings and verification.
- Valve position verification.
- Pressure safety valve testing.
- Rotation tests.
- Lube and hydraulic oil cleanliness checks.
- Opening/closing gate tests.
- Start/stop motor testing.
- Shutdown logic tests.
- Control and Monitoring offline checks.
- Excitation checks.
- Verification of governor response tests.
- Verification of turbine operating parameter tests.
- Verification of emergency intake closure (all location).
- Drainage and dewatering system tests.
- Oil interception tests.
- ac Transmission line connection checks.
- dc Transmission line connection checks.
- Fire protection systems tests.
- Cooling water filtration tests.

Dynamic Commissioning / System Commissioning activities shall be documented in the CPRs. Dynamic Commissioning / System Commissioning shall be performed when the Commissioning Static Checks are complete and the systems are ready for operational testing. The Dynamic Commissioning / System Commissioning activities include, but are not limited, to:

- Energizing all ac and dc transmission lines.

- Reservoir water impoundment.
- Tunnel(s) water impoundment.
- Fish habitat water impoundment.
- Watering up penstock.
- Black start checks.
- Startup/shutdown tests.
- Trips and alarm tests.
- Baseline data recording.
- Incremental speed rolls of turbine/generator to ensure mechanical balancing.
- Incremental loading of turbine generator and power transformer.
- Electrical power distribution in-plant tests.
- Remote operation tests.
- Load rejections during incremental loading of turbine generator to verify penstock pressure loading.
- Verification of generator winding temperatures, bearings temperatures, rotor stability, and turbine carbon seal leakages, etc. are within acceptable limits.
- Verification of the functionality of the control and monitoring system.
- Verification of contract guarantees, such as power output, turbine and generator efficiency, transformer losses, etc.

13.7 READINESS PROCESS

13.7.1 SCOPE OF THE READINESS PROCESS

The scope of the readiness process is the readiness of people, processes and systems to pass through a readiness milestone:

- People readiness means that the personnel required to progress through the readiness milestone are hired, trained, competent and available.
- Process readiness means that the necessary processes and procedures required to progress through the readiness milestone are developed, issued and in use.
- Systems readiness means that the necessary systems required to progress through the readiness milestone are handed over/turned over and all supporting systems are available and in use.

13.7.2 AIMS AND GOALS OF READINESS PROCESS

- To provide a mechanism to verify readiness at specific milestones.
- To reinforce the existing MC processes by providing an all encompassing process and propose gap resolution initiatives.
- To identify gaps in existing processes and propose resolution initiatives.
- To demonstrate due diligence checks and balances are being applied towards verification of readiness.

- To provide a means to pre-define readiness deliverables required for the readiness milestone.
- To provide a method for monitoring readiness towards the achievement of readiness milestones and to highlight issues for mitigation and opportunities.

13.7.3 GUIDING PRINCIPLES OF THE READINESS PROCESS

- The readiness process shall not duplicate existing processes but shall build on them and enhance them.
- To provide a structural process towards the verification of the readiness of people, processes and systems for specific readiness milestones.
- To be functional and simple to use yet effective.
- To facilitate the achievement of readiness milestones in an orderly and controlled fashion.
- To provide traceability and an audit trail in the achievement of milestone readiness.

13.8 COMMISSIONING PLAN, FORMS AND SCHEDULE

RFO will be lead by Company and shall consist of members from Company, Consultant and Contractors / Suppliers. The commissioning schedule shall be developed by Consultant. Consultant shall verify, witness and sign-off all testing and commissioning activities of each system and/or part system prior to approval of a TOC.

The commissioning schedule shall be by system and part system and shall be in a critical path network in order to achieve the Project milestones. The commissioning schedule shall identify the sequence and date that the systems shall be required to be handled over from construction as achieving MC, in order to carry out the commissioning scope of Work.

Consultant shall provide technical supervision and direction for commissioning. Consultant shall develop a standard format for all forms to be used by Contractors and Suppliers. Forms shall include SCL, MCC, CCL, TOC, and LUN.

Consultant shall develop the detailed installation schedule which shall be area Completions driven. MC need dates by system and part system shall provide the timelines by which the transition from area Completions to system Completions needs to be completed. Monitoring of the MC need dates shall be the means by which the transition from area Completions to system Completions are managed. An integrated MC and commissioning plan by system shall be the result.

13.9 SAFETY

Safety is of paramount importance. Consultant shall maintain a safe working environment during all phases of the Work in accordance with the Project Safety Management Plan and Company's WPC. Safety during commissioning is a key consideration and following procedures shall be used to provide the necessary safeguards.

- Consultant shall provide notification, by LUN to all involved parties at site that commissioning will start and that all further work on a particular system and/or part system will be subject to permit to work procedures. LUN shall contain descriptions and marked up drawings of which particular system or part system that will become live during commissioning.
- Consultant shall provide adequate safety signage for power on, live systems, pressurized systems or general commissioning activities.
- Consultant shall ensure all electrical and mechanical isolation requirements are in place and in accordance with Company's WPC prior to testing and Commissioning in order to eliminate any potential risk to personal injury and damages to Company's property. Consultant shall maintain a 3-tier safety process; verification of points of isolation shall be signed off by both Consultant and Contractor / Supplier and witnessed by RFO.
- RFO will conduct daily commissioning meetings with Consultant, Contractor(s), Suppliers and Operations to discuss all concerns, especially safety, in upcoming commissioning activities.

SECTION 14 – INVOICING AND PAYMENT**14.1 SCOPE**

This section sets forth Company's minimum requirements for Consultant's invoicing and payment procedures for the Services.

14.2 OBJECTIVES

- A. Consultant shall submit accurate, complete, and explicit invoices that reflect the Services completed by Consultant for the billing period.

14.3 CONSULTANT'S DUTIES

- A. Prepare, implement, and maintain an Invoicing and Payment Plan,
- B. Submit invoices covering Services completed during the billing period, complete with all supporting documentation and backup information,
- C. Submit to Company a monthly report that summarizes invoices submitted and the payments made with applicable dates. The report shall also include forecasts of expected invoice amounts (commitment data) for the next two months.

14.4 COMPANY'S DUTIES

- A. Review and approve Consultant's Invoicing and Payment Plan,
- B. Review and agree invoice format, coding, and attachments,
- C. Review and pay invoices from Consultant within the Agreement payment term, pursuant to Section 14.5.2.

14.5 SPECIFIC REQUIREMENTS**14.5.1 Consultant's Plan**

- A. Within the time specified in Table 1.1 of Section 1 (but before the first invoice is submitted), Consultant shall prepare and submit an Invoicing and Payment Plan for review and acceptance by Company. The Invoicing and Payment Plan shall include at least the following:
 - 1. Methodology used for preparation and submittal of invoices,
 - 2. A proposed invoice format,

3. Description of supporting documentation and backup information to be included with Consultant's invoices,
4. Proposed procedures for obtaining Company approval of milestone completion notices,
5. Process for settling billing disputes.

14.5.2 Procedural Requirements

- A. Consultant shall submit to Company one original and one copy of each invoice including all of the required supporting documentation. The invoice shall be submitted in hard copy to Company, as stated in Article 14.5.4;
- B. The invoice is to be organized such that it is easily understood and contain a clear description of the Services being billed such that the charges can be quickly verified against the Agreement. The invoice shall detail the part of the Services Budget payable to Consultant with respect to the Services performed up to the cut-off date (to be established by Consultant and agreed to by Company), less the accumulated amount of all previous invoices, supported by appropriate backup documentation, adjusted for corrections from time to time.
- C. No invoicing terms or conditions shall be stated on the invoice that differs from the provisions in the Agreement.
- D. Individual invoices shall be prepared for differing scopes of Services
- E. All invoices shall be billed based on an agreed upon Code of Accounts for the Services.
- F. The invoice package shall consist of one invoice per currency.
- G. The invoice shall include the information described in Paragraph 14.5.3.
- H. Before paying any invoice, Company may request clarification, certification or substantiation in relation to any invoice, and Consultant shall promptly comply with any such request. Invoice preview meetings (or pre-payment meetings) may be held to agree on charges to be included on an invoice, and when possible, sign off support information. Pursuant to Article 12, an invoice or part thereof that is incorrect or incomplete due to lack of relevant documentation shall not be considered as received for the purpose of payment until correct and all relevant documentation has been received by Company.
- I. Company shall, within thirty (30) calendar days after receipt of a correct invoice submitted in accordance with the provisions of the Agreement, pay the amount due to Consultant according to the invoice, less:
 1. any previous payments on account to Consultant that relates to or directly concerns the Services covered by the invoice,
 2. any parts of the invoiced amount which Company notifies Consultant as being insufficiently documented or otherwise disputed. The Company shall provide

- detailed listing of adjustments at time of payment. Consultant has the right to submit a new invoice at a later date for the unpaid amounts, provided adequate and proper support for such invoice is received., and
3. all amounts due to Company by Consultant provided that Company has the right to make such deductions according to the Agreement and applicable law.
- J. Consultant shall prepare and submit to Company a monthly report that summarizes invoices submitted and the payments made with applicable dates. The report shall also include forecasts of expected invoice amounts (commitment data) for the next two months.
- K. Within three months of the receipt of the final acceptance certificate, Consultant shall invoice Company for all remaining amounts due to Consultant. The final invoice shall be accompanied by:
1. Written proof satisfactory to Company that all claims against and obligations of Consultant in connection with the Services have been or are being satisfied and that all liens for which the Consultant is responsible have been discharged or adequately bonded;
 2. A release from Consultant to Company, contingent upon payment by Company of Consultant's invoice, discharging the Company and its Affiliates from all claims for additional compensation arising out of the Services;
 3. An accounting breakdown of the amounts paid by Company, as specified by Company.

14.5.3 Invoice Format

Consultant's invoices shall include the following:

- A. Consultant's name, address and tax ID number (GST/HST Registration number);
- B. Invoice date and invoice number;
- C. Agreement number, name or title;
- D. Purchase order (PO) and Code of Accounts;
- E. Cumulative value of all invoices for the Agreement by Code of Accounts;
- F. Adjustments, if any, from prior invoices;
- G. Sub total, tax (GST/HST applicable to the invoice) and total;
- H. Only one currency, to be agreed, can be invoiced per invoice submitted. Amounts converted to \$CDN from any foreign currency must have details attached referencing the rates of exchange used. Reference will be the Bank of Canada or an agreed upon equivalent source for the period that the portion of the Services being invoiced occurred;
- I. Period end date;

- J. Complete and accurate supporting documentation and backup information (approved timesheets, receipts, materials slips, etc);
- K. The specific payment milestones to which the invoice relates or the numbers of all Change Orders which are covered, in whole or in part, by the invoice and a summary of the financial provisions in the Change Orders on which the charges are based;
- L. Milestone completion notice signed by Company Representative or person with delegated authority for invoicing purposes only;
- M. Adjustments, if any, from prior invoices must be billed separately, with appropriate supporting documentation;
- N. Portion of Services performed in Canada by non-resident Canadian employees must be clearly identified on the invoice as to time and expenses incurred, to ensure Canada Revenue Agency Non-Resident Withholding Tax is properly calculated and reported, as applicable;
- O. Change Order amounts may in some cases be shown separately and the invoice will itemize values per Change Order number with a detailed description of each item being billed. The approved Change Order shall accompany the invoice. The basis for compensation of Changes will be in accordance with Exhibit 4.

14.5.4 Invoice Submittal

Consultant must present invoices to Company's office at:

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

14.5.5 Banking Information

- A. Payments of invoices shall, where possible, be made by electronic funds transfer direct to Consultant's bank account specified in writing by Consultant to the Company Representative.
- B. Any changes in Consultant's banking information or payment instructions shall be submitted prior to submittal of invoices in writing to the Company Representative. The Company shall not be held responsible for errors or delays resultant from incorrect payment instructions.

SECTION 15 - NEWFOUNDLAND AND LABRADOR BENEFITS OBLIGATIONS AND REPORTING**15.1 SCOPE**

Company is committed to supporting the accrual of benefits for the people of Newfoundland and Labrador with Labrador residents benefiting significantly from both business and employment opportunities. To ensure maximum return on investment and in turn to maximize benefits for the people of the province, the Project will be executed on an economic basis adhering to competitive business practices.

Consultant 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 application of Best Value in the acquisition of goods and services. Best Value is defined as a blend of total cost, quality, commitment to safety, technical suitability, credit worthiness, delivery and continuity of supply and services, where total cost is comprised of initial purchase price plus operation and maintenance costs.

15.2 OBJECTIVES

- A. Consultant and Company shall work together to form a high performing team to optimize Newfoundland and Labrador Benefits on the Project.
- B. Consultant and Company shall work together to develop and execute an implementation plan consistent with the objectives and principles committed to by Company relating to optimizing Newfoundland and Labrador Benefits on the Project.
- C. Consultant and Company shall work together to develop and implement a contracting and purchasing policy consistent with the objectives outlined in section 5.1 of Proposal Form B6, Newfoundland and Labrador Benefits questionnaire.
- D. Consultant and Company shall work together to ensure information relating to Newfoundland and Labrador Benefits is collected and available for reporting purposes by Company.

15.3 CONSULTANT'S DUTIES

- A. Execute commitments based on the Project benefits strategy and other agreements such as, Impacts and Benefits Agreement (IBA) and conditions of release from Environmental Assessment.
- B. Execute commitments as outlined in Exhibit 9.

- C. Along with Company, work with Contractors to develop implementation strategies consistent with Newfoundland and Labrador Benefits objectives as determined by Company.
- D. Monitor Contractors to ensure compliance with Newfoundland and Labrador Benefits objectives as determined by Company.
- E. Adhere to Project hiring adjacency protocol and commitments from other agreements such as IBA and conditions of release from Environmental Assessment relating to employment and to monitor Contractors for compliance relating to these commitments.
- F. Work with the Company to develop and deliver training orientations and encourage the development of apprenticeship programs by Contractors, and government as required.
- G. Work with Company to encourage relevant stakeholder groups to access and develop training opportunities.
- H. Provide Suppliers and Contractors in Newfoundland and Labrador with full and fair opportunity to participate on a competitive basis in the supply of goods and services.
- I. Work with the Company to develop and implement supplier development initiatives.
- J. Work with Company to implement the Project diversity plan and diversity commitments as per other agreements such as IBA and conditions of release from Environmental Assessment.
- K. Collect and provide Company with relevant data relating to Newfoundland and Labrador Benefits from Subcontractors, Contractors and Suppliers and consolidate this data into a format as determined by the Company.
- L. Supply Company with documentation for audit purposes.

15.4 COMPANY'S DUTIES

- A. Define commitments based on Project benefits strategy and other agreements such as IBA and conditions of release from Environmental Assessment.
- B. Work with Consultants to develop implementation strategies to ensure adherence to commitments relating to Newfoundland and Labrador Benefits.
- C. Define hiring adjacency protocol and commitments from other agreements.
- D. Work with Consultants to define training, orientation, and apprenticeship requirements.
- E. Work with Consultants to encourage relevant stakeholder groups to access and develop training opportunities to optimize participation in the Project.

- F. Define contracting and purchasing objectives to ensure Suppliers and Contractors in Newfoundland and Labrador have full and fair opportunity to participate on a competitive basis in the supply of goods and services.
- G. Provide the Consultant with a diversity policy and work with the Consultant to develop an implementation strategy.
- H. Provide the Consultant with data collection requirements and system requirements relating to Newfoundland and Labrador Benefits reporting.
- I. Monitor Consultant and its Subcontractors, Contractors and Suppliers for compliance with the commitments made by Company relating to Newfoundland and Labrador Benefits.

SECTION 16 - INFORMATION MANAGEMENT

16.1 SCOPE

This section provides the Company's expectations and minimum requirements in relation to Information Management (IM). Includes the areas of Records Management, Document Management/Control, Data Management, Information Systems/Information Technology (IS/IT) and Information Security.

The scope of IM for the Project is all information (structured or unstructured) created, generated or received as a result, or in support of, the activities required for planning, execution and Project implementation.

Also included, are the associated processes, resources and electronic tools required to manage (receive, create, generate, store, maintain, revise, distribute, exchange, etc.) this information during the Project execution.

It addresses confidential and restricted information provided to Consultant by Company for use only by Consultant and/or its Subcontractor(s) in the execution of the Services.

16.2 OBJECTIVES

- A. To establish an effective IM environment for the Project, where people can work safely and collaboratively with a confidence that information, and the systems that manage it, are accessible, accurate, reliable, up to date and timely throughout the full life cycle of the asset.
- B. For the function of IM and its associated processes, to be seen as an enabler and not a hindrance to project progress and success.
- C. To establish clear communication methods for the exchange of information, both technical and non-technical.
- D. To use Standards (electronic formats, physical formats, data, numbering, etc.) to ensure a consistent information deliverable for incorporation into Company systems, regardless of origin.
- E. Production of design documentation that requires minimal rework for use and re-use during the full life cycle of the information.
- F. To produce and deliver a Quality information asset that will support and enable the ongoing operation and maintenance of the physical asset.

- G. To provide the people, processes and tools required to facilitate and enable efficient and effective IM practices for the execution of the Project.
- H. To ensure that adequate orientation, training and guidance is provided to all team members in the specific areas of IM and supporting systems.
- I. To manage Project records and make them available as Project history, as well as for informed decision making.
- J. Personal, confidential and restricted information shall be handled using best practice protocol to ensure access to authorized personnel only in both the physical and electronic environments.
- K. No incidents of illegal information brokering as Consultant provides the Services.

16.3 CONSULTANTS DUTIES

- A. Develop an IM plan (including procedures, organizational charts, systems, training programs, etc.) to address the following areas of IM:
 - a. Administrative Records Management
 - b. Document Management/Control (Engineering Services, Contractor, Supplier, procedural, etc.)
 - c. Data Management (Engineering Services, Supplier, etc.)
 - d. IS/IT
 - e. Information Security
- B. Adhere to Company provided documents included in Exhibit 6, MSD-IM-002, Lower Churchill Project Information Management Policy and MSD-IM-003, Lower Churchill Project Information Management Strategy.
- C. Provide statistical and status reporting for documentation and data as defined by Company.
- D. Ensure all IM related Standards and procedures agreed between Company and Consultant are followed by Consultant, Subcontractor(s), Contractor(s) and Supplier(s) Personnel.
- E. Facilitate inspections and assessments of IM processes and systems by Company Representative(s) for Consultant and any/all Subcontractor(s), Contractor(s) and Supplier(s).

- F. Provide process improvement suggestions throughout the life of the Project where there are efficiencies to be gained.
- G. Highlight and work to resolve any IM related issues on the Project.

16.4 COMPANY'S DUTIES

- A. Provide general oversight to the IM components of the Project.
- B. Review and accept plans and procedural documentation created by Consultant in support of IM for the Project.
- C. Conduct inspections and assessments of Consultant, Subcontractor(s), Contractor(s) and/or Supplier(s) IM programs and systems as appropriate.
- D. Provide statistical reporting requirements to Consultant as required.
- E. Work with Consultant's IS/IT on all electronic system connectivity between Sites, as applicable.
- F. Provide applicable IM related standards to Consultant.
- G. Identification of restricted information as appropriate.
- H. Provide process improvement suggestions throughout the life of the Project where there are efficiencies to be gained.
- I. Highlight and work to resolve any IM related issues or inefficiencies on the Project.

16.5 SPECIFIC REQUIREMENTS

16.5.1 Administrative Records

- A. Consultant shall maintain a distinct set of project related administrative records consisting of all non-revision controlled information received or created/generated in support of Project activities. Administrative records shall be managed in an electronic content environment. Consultant shall provide reports of these records upon request from Company. Consultant shall provide copies of records as requested by Company at any point during Project.

- B. Consultant may use existing file plans and classification systems within their own organization, but shall capture a cross-reference to the Company's classification system.
- C. Consultant shall develop a correspondence register which shall include, but not be limited to, record code, subject, date, addressee (including cc's), signatory as shown on correspondence. It shall also include the mechanism of submission, ie, mail, registered mail, courier, hand delivered, etc.
- D. Correspondence register shall be submitted to Company on a bi-weekly basis, or as otherwise agreed. Register shall be provided in an acceptable electronic format with one (1) equivalent hard copy that has been generated from the electronic file as submitted.
- E. Formal correspondence shall be by letter and shall be limited to one subject per letter. Subject line shall include reference to agreement numbering as well as specific subject.
- F. All correspondence shall be sent by regular mail, register mail/courier or hand delivered to Company's office commensurate with its importance and the response required. Use of email with a .pdf file of signed document may also be acceptable.
- G. E-mail between Company and Consultant may be used to transmit formal correspondence for expediency but shall be followed by facsimile or letter with appropriate signature(s). Use of .pdf file of signed document may also be acceptable.

16.5.2 Document Management/Control

- A. Consultant shall develop and maintain a Central Document Register for all revision controlled documentation for Consultant, Subcontractor(s), Contractor(s) and Supplier(s). The Consultant shall provide the updated register to Company on a regularly scheduled basis. Initial Central Document register to be provided within the time specified in Table 1.1 of Section 1.
- B. Document register submissions shall be assigned a document number as per Company provided document in Exhibit 6, MSD-IM-008 – Coding Standard, and shall be maintained as a revision controlled document.
- C. Document register shall form the basis for the final information deliverable. Register shall include, as a minimum, the following fields:

- a. Document number – Shall be the LCP document/drawing number as per the Company provided document, MSD-IM-008 – Coding Standard.
- b. Document title – shall be a descriptive title which reflects the content and intent of the information provided in the document/drawing.
- c. Document revision - shall reflect the LCP status and revision code as per the Company provided document, MSD-IM-008 – Coding Standard.
- d. Revision date – shall reflect the date the document/drawing was issued and as it shows on the document/drawing title block.
- e. Consultant, Subcontractor, Contractor or Supplier document number – shall be the Consultant, Subcontractor, Contractor or Supplier’s document number as per own internal numbering.
- f. Consultant, Subcontractor, Contractor or Supplier document revision – shall be the Consultant’s, Subcontractor’s, Contractor’s or Supplier’s document revision as per internal numbering.
- g. Applicability code – denoting the life cycle phase to which the document is applicable and valid for use, as per Company provided document, MSD-IM-008 – Coding Standard.
- h. Document size – this shall reflect the paper size the document/drawing was created in, and is best viewed in. Acceptable sizes shall be provided upon award.
- i. File format – denoting the electronic file format in which the document/drawing will be submitted to Company. Acceptable formats to be provided upon award.
- j. Submission requirement – indicates the initial status/revision document is required to be submitted to Company.
- k. Review class – indicates the requirement for document/drawing submissions for Review or Information as agreed between Consultant and Company.

- B. All data deliverables shall be submitted through document control. Distinct data sets submitted shall have a document number applied, as per Company document MSD-IM-008 – Coding Standard, and shall be provided under a document transmittal.
- C. All data shall be submitted in formats and versions as defined by Company to allow for inclusion in Company systems as applicable.
- D. Systems used to manage data that will be provided as a deliverable shall be standard out of the box installations, free of additional copyright or proprietary packages, unless other wise approved by Company.

16.5.4 Information Systems/Information Technology

- A. Consultant shall establish IT infrastructure(s) and protocols to ensure system reliability with service levels agreed between Company and Consultant for all IT communications between project offices.
- B. Consultant shall establish and maintain wide area network (WAN) connectivity, providing performance levels to be agreed with Company, between Company's home office and Company's Project office located within Consultant's Project office.
- C. All computers (desktops and laptops) provided to Company personnel by Consultant shall meet or exceed standard specification provided by Company.
- D. Wireless or adjusted network connections are to be made available to Company personnel to allow for internet connectivity while visiting Consultant office(s) and site(s).
- E. Consultant shall provide all system and computer hardware for Company Personnel while working in Consultant's office(s).
- F. Consultant shall be expected to maintain an upgrade path for electronic formats that will keep formats compatible with Company's upgrade path.
- G. Consultant shall provide documented schedules for all hardware and software upgrade paths throughout the Project life cycle.
- H. All electronic systems shall have documented Standards, configuration documents and procedures capturing, but not limited to, the type(s) of data managed, capture and access processes, life cycle management of the data, etc.

16.5.5 Information Security

- A. Consultant shall ensure the protection of Project information from inappropriate access or use, using a variety of best practice means, as required, including:
 - i. Policies, Standards, procedures and guidelines.
 - ii. Physical, technical and administrative safeguards.
 - iii. Compliance monitoring and reporting.
- B. Consultant shall have a documented and implemented disaster recovery program which includes both electronic systems and physical records for all locations.
- C. Consultant shall ensure all persons having access to confidential or restricted information shall be obligated to honor the confidentiality requirements of the agreement. This includes all Consultant, Subcontractor, Contractor and Supplier Personnel.
- D. Consultant shall ensure that personal, confidential or restricted information is physically and electronically segregated to provide for restricted access. This would include physical office space as well as electronic access controls.
- E. Consultant shall require all unsuccessful bidders to destroy or return all information provided as part of bid processes within a reasonable period of time.
- F. Consultant shall require all successful bidders to destroy or return all such information upon completion of their specific work scope.
- G. All personal, confidential or restricted documentation shall be clearly stamped or watermarked indicating such. Shall also include notation regarding non-authorization to print, copy or distribute.
- H. Personal, confidential and restricted documentation shall only be disposed of by secure means, such as shredding or secure bin collection processes.
- I. Consultant shall highlight and document potential areas of exposure relating to information security and work with Company to agree acceptance or mitigation of such risk.
- J. Consultant shall develop and implement a plan for the prevention of illegal information brokering.

- K. Consultant shall highlight and document potential areas of exposure relating to information brokering and work with Company to agree acceptance or mitigation of such risk.

- L. Consultant shall ensure compliance of all Subcontractors, Contractors and Suppliers to Consultant's security related processes or Subcontractor's, Contractor's and Supplier's equivalent processes.

SECTION 17 - REGULATORY AND ENVIRONMENT**17.1 SCOPE**

This section sets forth Company's minimum requirements of Consultant for implementation of a Regulatory and Environmental Management Plan throughout the performance of the Work. Consultant shall consider and incorporate in this program, as required or as indicated, provision for waste management and services, environmental compliance monitoring programs, water pollution prevention and spill response measures, and regulatory compliance measures.

17.2 OBJECTIVES

The regulatory and environmental objectives for the Work are the following:

- A. The Project is designed, constructed, installed and commissioned in a manner which incorporates regulatory and environmental integrity.
- B. The Project complies with all conditions of Environmental Assessment (EA) release for all phases of the Project, with all applicable government regulations, statutes and permitting requirements.
- C. The Work is performed in a manner consistent and compatible with Company's policies (Attachment 17.1) and business objectives including:
 - 1. Prevention of pollution.
 - 2. Continual improvement.
 - 3. Regulatory compliance.
- D. The Work is performed in full compliance with applicable laws including:
 - 1. No issuances of non-compliance notices from governing authorities.
 - 2. No environmental incidents.
- E. The Work is performed in such a manner that the Project meets the requirements of a certifying authority (as defined by the regulator) leading to the issuance of a certificate of fitness, if applicable.

17.3 CONSULTANT'S DUTIES

Consultant shall:

- A. Be responsible for regulatory and environmental aspects of the Work, including Work performed by Subcontractors and Contractors, as defined in the Regulatory and Environmental Management Plan (EMP).
- B. Comply with all relevant government regulations and laws regarding performance of the Work.
- C. Develop, document, and implement regulatory and environmental policies to the satisfaction of Company and consistent with Company's policies provided in the attachments.
- D. Consult with Company on regulatory requirements, as requested or required.
- E. Develop, publish, and enforce Project regulatory and environmental standards for the Work.
- F. Develop, implement and maintain required regulatory, environmental management, and environmental protection plans (including but not limited to a Project Environmental Protection Plan (EPP), Site Specific EPPs and rehabilitation plans).
- G. Evaluate the effectiveness of the plans described in item F and when necessary make the appropriate modifications to these plans.
- H. Identify and obtain all necessary licenses and permits, meeting all conditions of agreements and permits and rectify inconsistencies between conditions of different permits prior to the start of Work. Where permits are required on behalf of Company, Consultant will identify these permits and support Company in obtaining these permits.
- I. Conduct environmental analyses for all relevant phases of its Services, according to regulatory requirements and Company's internal requirements to implement agreed Regulatory and Environmental Program.
- J. Develop and conduct regulatory and environmental training programs for supervisory Personnel and employees regarding safe and environmentally sound

construction practices, regulatory requirements, HSE awareness, and to specific site hazards and potential environmental impacts and mitigations.

- K. Develop and implement a regulatory and environmental monitoring program consistent with the requirements of the Regulatory and Environmental Management Plan for the Work.
- L. Prepare and issue monthly regulatory and environmental reports to Company as part of the monthly progress report.
- M. Resolve audit findings from regulatory agencies or Company promptly and to Company's satisfaction.
- N. Provide Company a detailed description of its regulatory and environmental organization.
- O. Support management of the interfaces with regulatory and certifying authority contacts by:
 - 1. Providing technical documents and the services of technical personnel, as required, to assist Company in contacts with regulatory agencies and the certifying authority.
 - 2. Developing general procedures for Consultant's contacts with governmental authorities, and ensuring that any persons in Consultant's organization that may meet with governmental authorities are fully aware of the procedures. Such procedures shall be accepted by Company.
 - 3. Interfacing with regulatory authorities, certifying authority or agencies as requested by Company and as required to perform the Work in accordance with the general procedures as agreed with Company.
 - 4. Maintaining records and files relating to governmental agency permits required for the Work, and any pertinent correspondence.
- P. Detect, report, and rectify environmentally unsound or unsafe conditions at the Site.
- Q. Provide Company with documented environmental and regulatory risk assessment procedures and results for Consultant's risk assessment.

- R. Conduct regular inspections at the Site to ensure it is being maintained in an environmentally sound manner and that environmental risks are being identified and managed.
- S. Investigate all significant environmental incidents that occur at the Site to determine their cause and means to prevent re-occurrence at the Site.
- T. Keep required environmental performance records and make available to Company upon request.
- U. Identify environmental hazards and perform risk assessments for the Work, incorporating necessary control measures into Consultant's Regulatory and Environmental Management Plan.
- V. Ensure that technical and other resources selected by Consultant to perform the Work are properly licensed and qualified in accordance with the laws and regulations of the Province of Newfoundland and Labrador.
- W. Provide qualified resources to evaluate, document and implement regulatory equivalencies or variances to the satisfaction of the certifying authority and regulator in accordance with a defined regulatory query process.
- X. Provide sufficient information to satisfy Company's Newfoundland and Labrador Benefits reporting requirements as outlined in the plan approved by the regulator.
- Y. Provide resources to address conditions of regulatory authorizations, regulatory queries or certificate of fitness, if applicable.

17.4 COMPANY DUTIES

With respect to regulatory and environmental compliance, Company will:

- A. Accept Consultant's Regulatory and Environmental Management Plan.
- B. Make available to Consultant appropriate information, regulatory and environmental manuals, details of Company's environmental management systems, conditions of EA release, conditions of IBA or other documents to which Consultant's plans must conform.
- C. Review Consultant's policies, Standards, plans, procedures, risk assessments investigations and performance targets in regard to regulatory and

environmental objectives and requirements and request changes in Consultant's documents as needed to comply with Company's requirements

- D. Monitor and evaluate Consultant's regulatory and environmental performance.
- E. Audit Consultant's operations and facilities for regulatory and environmental compliance.
- F. Give Consultant reasonable advance notice of all scheduled meetings between Company and regulatory authorities or agencies concerning the Work.
- G. Facilitate interfaces with regulatory or certifying authority contacts by:
 - 1. Arranging and managing contacts with personnel from regulatory agencies or certifying authority.
 - 2. Advising Consultant of regulatory approval requirements and any conditions included.
 - 3. Leading the interface and discussions in any sessions with regulatory authorities that focus on regulatory or environmental issues.
- H. Review modifications to the plans described in Section 17.3, item F, procedures, policies, Standards, and targets resulting from effectiveness evaluations of these plans.
- I. Conduct environmental effects monitoring related to verification of the effect predictions made as part of the environmental assessment process. Company will provide the results of monitoring to Consultant as required for improvement of work practices and environmental performance.
- J. Participate on required environmental management committee(s) resulting from IBA and provide information as required resulting from participation and discussion.

17.5 SPECIFIC REQUIREMENTS

Consultant Plans

- A. Consultant shall prepare a Regulatory and Environmental Management Plan for the Work. As a minimum, this plan shall include the following components:

1. Regulatory Compliance Plan (RCP).
 2. Environmental Management Plan (EMP) - to include details for waste management.
 3. Project EPP - to include spill response plan, reporting requirements.
 4. Site Specific EPPs.
 5. Rehabilitation Plan.
- B. These plans shall be submitted to Company within the time specified in Table 1.1 of Section 1. Any submission to the regulatory or certifying authorities in accordance with applicable laws and regulations will be managed through Company.
- C. Consultant is encouraged to build upon its existing regulatory and environmental management system to the extent possible, modifying where required ensuring alignment with Company management system, objectives and policies.
- D. Typical contents for Regulatory and Environmental Management Plan components are provided in Attachment 17.2.

Attachments

Attachment 17.1 - Company's Policy**ENVIRONMENTAL POLICY AND GUIDING PRINCIPLES**

All Nalcor Energy companies will help sustain a diverse and healthy environment for present and future Newfoundlanders and Labradorians by maintaining a high standard of environmental responsibility and performance through the implementation of a comprehensive environmental management system.

The following guiding principles set out all Nalcor Energy companies' environmental responsibility:

PREVENTION OF POLLUTION

- implement reasonable actions for prevention of pollution of air, water, and soil and minimize the impact of any pollution which is accidental or unavoidable;
- use the Province's natural resources in a wise and efficient manner;
- use energy as efficiently as possible during the generation, transmission, and distribution of electricity, and the operation of its facilities, and promote efficient use of electricity by customers;
- maintain a state of preparedness in order to respond quickly and effectively to environmental emergencies; and
- recover, reduce, reuse and recycle waste materials whenever feasible.

IMPROVE CONTINUALLY

- audit facilities to assess potential environmental risks and continually improve environmental performance;
- integrate environmental considerations into decision-making processes at all levels; and
- empower employees to be responsible for the environmental aspects of their jobs and ensure that they have the skills and knowledge necessary to conduct their work in an environmentally responsible manner.


COMPLY WITH LEGISLATION

- comply with all applicable environmental laws and regulations, and participate in the Canadian Electricity Association's Sustainable Electricity Program;
- periodically report to the Board of Directors, Executive Management, employees, government agencies, and the general public which we serve on environmental performance, commitments and activities;
- monitor compliance with environmental laws and regulations, and quantify predicted environmental impacts of selected activities on the environment; and
- respect the cultural heritage of the people of the Province and strive to minimize the potential impact of Corporate activities on heritage resources.

Approved by:

Date:

Version:



 December 1, 2009

 3



Attachment 17.2 - Typical Contents for Plans**Regulatory Compliance Plan (RCP)****A. Introduction/Overview**

The RCP shall describe the processes that Consultant will have in place to ensure that all applicable Laws, regulations and conditions of EA release are followed in performing the Work.

B. Scope and Objectives

The purpose of Consultant's RCP shall be to describe the methods, processes, and actions that Consultant will use to limit incidents of noncompliance and schedule impacts.

C. Reference Documents and Control

Consultant shall define how the RCP is linked to other relevant documents and define how it will be administered, distributed and controlled.

D. Expectations

Consultant shall define specific regulatory compliance expectations in the RCP.

E. Organization

Consultant's regulatory compliance organization includes staffing required for planning and implementing the RCP. Consultant shall identify Personnel that will be responsible for ensuring that Consultant's activities are in full compliance with all applicable laws and regulations. Consultant must demonstrate that it has allocated sufficient resources and time to accomplish the tasks identified in this document. Roles and responsibilities shall be clearly defined and documented for site management, supervisory Personnel, and the workforce. Consultant shall also describe how roles and responsibilities are communicated to Personnel.

F. Procedures

Consultant shall establish the following procedures in the RCP:

1. Process for identifying relevant Laws and regulations

Consultant shall describe the process that Consultant will follow to ensure that all applicable laws and regulations (including IBA and conditions of EA release) are identified.

2. Listing of all Laws and regulations that are relevant to the Work

A listing of all applicable government regulations, including permits, required for any aspect of the Work. These shall include but shall not be limited to:

- a) Labor Laws
- b) Tax Laws
- c) Contracting Laws
- d) Laws governing workplace/occupational health and safety
- e) Laws governing emissions and discharges to the environment
- f) Laws governing waste disposal

3. Process for stewarding timely compliance and/or submittals of permit applications/notification.

Consultant shall provide the following information for each law or regulation as per Item F2:

- a. Consultant's plan for satisfying the regulatory requirement, showing a detailed estimated time line for either obtaining the permit (in the case of a permit) or for implementing the requirement.
- b. Based on the time line, a demonstration that Consultant's plan for fulfilling the regulatory requirement is consistent with the Project schedules.

4. Process for Ensuring Compliance

For each task or activity that requires a permit or that is governed by one or more regulations, Consultant shall:

- a. Develop and implement a procedure to perform a final check, just before that task is started, that all regulatory requirements have been fulfilled. For example, Consultant could include regulatory compliance on a checklist that Site construction managers must go through before starting various phases of the Work.
- b. Develop end user compliance instructions for distribution to appropriate field personnel.

5. Process to identify Work scope change that would necessitate changes to existing permits or new permitting requirements.

6. Processes to identify and communicate new laws and regulations

A description of processes that Consultant shall provide to:

- a. Monitor, on an ongoing basis, the legislative requirements so that Consultant is able to obtain timely knowledge of new and/or emerging regulations that can affect any aspect of the Work.
- b. Communicate new and emerging laws and regulations to its Personnel and to Company.
- c. Follow up with the responsible Personnel to ensure that the new laws and regulations have been added to the processes that are in place to ensure compliance.

7. Process for Assessment and Evaluation

A description of processes that Consultant shall provide to:

- a. Monitor/audit the various aspects of its operations for regulatory compliance
- b. Identify incidents of noncompliance; investigate causes of any noncompliance incident; report the incident; develop learnings from the

incident; and transmit the learnings to the organization so that such incidents are not repeated.

8. Process to evaluate and complement regulatory equivalencies and variations to regulations including:
 - a. Review of HSE, operations and engineering requirements
 - b. Certification review
 - c. Regulator approval
 - d. Follow-up on condition of approval

G. Training

Consultant shall provide training for Personnel that will be responsible for ensuring regulatory compliance. This includes a description of qualifications and additional training that will be required for Consultant's Personnel that are responsible for ensuring regulatory compliance.

H. Assessment and Evaluation

Consultant shall include a process in the RCP for assessments and evaluations of Consultant's operations to ensure compliance with all applicable regulations. Consultant shall have a process to implement lessons learned from such reviews to improve overall compliance performance.

Environmental Management Plan (EMP)

- A. Consultant's EMP shall document how Company's environmental objectives (Attachment 17.1) and Company's environmental commitments (waste management plan, environmental effects monitoring program, EPP, and environmental status reviews) will be achieved during performance of the Work.
- B. Introduction/Overview

Consultant shall provide a management overview of the contents of the EMP.
- C. Scope and Objectives

The purpose of Consultant's EMP shall be to describe the methods, processes, and actions that Consultant will use to assist in complying with appropriate environmental Laws or Standards and meet Company's commitments.

D. Reference Documents and Control

Consultant shall define how their EMP is linked to other relevant documents for the LCP such as EA documents. Consultant shall also define how the EMP will be administered, distributed and controlled.

E. Expectations

Consultant shall define specific environmental expectations related to policies, performance indicators and targets, and other desired results. Performance indicators should include tracking and setting targets for leading (e.g., initiatives to minimize volume of waste generated) and trailing (e.g., actual volume of waste generated) environmental performance indicators in the EMP. Consultant shall will identify how expectations are communicated to Personnel. The EMP will define the elements which are essential to the success of the environmental effort. Examples include management commitment, workforce participation, effective communication, positive reinforcement, pro-activity, performance measurement, competence, accountability, empowerment, caring about the environment, and continuous improvement.

F. Organization

Consultant shall define:

1. Consultant's environmental organization including staffing, facilities and equipment required for planning and implementing the EMP.
2. Procedures for managing change of Personnel/organizations responsible for a task.
3. Roles and responsibilities which shall be clearly defined, documented, and communicated to site management, supervisory Personnel, and the workforce.
4. The approval process and milestones for deliverables during each phase of the Project (Detailed Design and engineering, construction, operation, etc.) as applicable.
5. A process for resolving conflicts between the objectives of environmental and construction Personnel.

G. Procedures

Consultant shall provide for:

1. Mechanism for obtaining acceptance from Company for deviations from the Project environmental specifications and for changing procedures/designs as necessary.
2. Mechanism for incorporating improvements to the environmental management system.
3. Mitigation Measures

Programs or actions to control/mitigate the potential environmental impacts. As appropriate, detailed design shall be required for some mitigative measures (i.e. settling ponds). These programs, actions and designs shall be Site-specific. Depending on the location of a particular Site, its environmental sensitivity, and the nature of the Work, the discussion should include topics such as:

- a. Control of construction Site water (reduction of surface runoff into Site excavations, control of water once on-site and treatment of water to acceptable levels of suspended solids).

Description of measures (particularly Work practices) that Consultant will implement to prevent unnecessary and unacceptable levels of total suspended solids.

- b. Soil preservation and soil erosion mitigation
- c. Protection of plants and animal species and their habitats

Description of measures (particularly work practices) that Consultant will implement to prevent unnecessary and unacceptable impacts to plants, animals, and their habitats

- d. Water availability

Discussion of Project water needs; anticipated sources of that water; demonstration that those sources can meet the needs of the Project, and that Project water draws will not negatively impact water supply to the existing area infrastructure.

e. Air and noise pollution

Description of aspects of Consultant's execution plans that help to mitigate noise nuisance and limit air pollution.

f. Dust control

g. Spill prevention and response

Spill response plan shall be included in the EMP. Consultant shall define interfaces with Company Emergency Response and Spill Response Plans.

h. Waste management

The waste management plan shall be included in the EMP.

i. Work site controls (access)

j. Site restoration

H. Assessment and Evaluation

Description of mechanisms that Consultant shall have in place for:

1. Evaluating the effectiveness of its environmental mitigation measures; and
2. Monitoring (inspections) and enforcing compliance with the EMP.

This section shall also describe how information gathered from such evaluation will be used to implement remedial actions and to improve Consultant's environmental performance. Include a listing of environmental compliance indicators (e.g., quality of treated effluent before discharge) that will be measured and frequency of measurement.

I. Incident Reporting and Investigation

Description of mechanisms that Consultant shall use to document, report, and investigate incidents of non-compliance with the EMP. This should include mechanisms to capture lessons learned from such incidents.

J. Training

A description of environmental awareness training that will be provided to all supervisors and workers, along with a training schedule. Consultant shall keep training records for each employee.

Project Environmental Protection Plan (EPP)

- A. Consultant shall develop and implement a comprehensive Project EPP to help achieve a high level of environmental protection throughout all work areas and activities associated with the Project. The Project EPP shall outline the context of the document, the environmental and planning aspects of the Project and provide a list of Project policies. The Project EPP shall outline general environmental protection procedures.
- B. Consultant shall update and modify the Project EPP as required according to the Project phase and as determined by Site-specific conditions and monitoring results.
- C. Consultant shall develop an operation phase EPP prior to the completion of construction.

Site Specific Environmental Protection Plans

- A. Consultant shall develop or oversee the development of Site Specific EPPs to address Site-specific conditions and the construction/design requirements of the Project and identify environmentally sensitive areas and periods as well as other key environmental concerns associated with the Work.
- B. Site Specific EPPs shall also detail Site-specific environmental protection measures, rehabilitation measures, waste management and contingency plans for accidental events and malfunctions.
- C. Consultant shall ensure a thorough analysis of all planned activities is conducted prior to the start of construction to identify activities that will require a Site Specific EPP.

Rehabilitation Plans

- A. Consultant shall be responsible for completing Rehabilitation Plans.
- B. The rationale for completing site restoration and rehabilitation programs will be to mitigate the effects of construction activities, to reduce erosion, and to safeguard the aesthetic appeal of the landscape.
- C. The objectives of the proposed Rehabilitation Plan will be to:

1. Achieve final Site stabilization;
 2. Enable future landscaping to flourish; and
 3. Meet or exceed regulatory requirements (i.e. conditions of permits) and industry best practice.
- D. Consultant shall consider the following when developing Rehabilitation Plans:
- safety;
 - the natural features of the area - vegetation, soil, hydrology;
 - wildlife habitat considerations;
 - riparian habitat considerations;
 - the altitude and exposure and, its effect on re-vegetation;
 - the availability of materials and implications of importing material;
 - land use and its effect on success of restoration techniques; and
 - over-all cost of rehabilitation and restoration measures.
- E. Consultant shall also produce drawings which will include a plan view showing restoration and rehabilitation locations.

SECTION 18 - SCHEDULE MANAGEMENT

18.1 SCOPE

This section sets forth Company's minimum requirements for Consultant's planning, scheduling, measuring and reporting physical progress, and schedule control activities for the Project.

18.2 DEFINITIONS

- A. Earned Value Management – A measure of the value of Work performed. Earned value uses current project budgets and progress-to-date to show whether the incurred values are on budget and/or whether the tasks are ahead or behind the Baseline plan. A method for measuring Project productivity and performance. It compares the effort of Work that was actually expended with what was physically accomplished to determine if cost and schedule progress & production is as planned.
- B. National Occupation Classification (NOC) - The nationally accepted taxonomy and organizational framework of occupations in the Canadian labor market. The NOC is a Standard that classifies and describes the occupations in the Canadian economy.
- C. Scheduled Completion Date – A date assigned for completion of activity or accomplishment of an event for purposes of meeting specified schedule requirements.

18.3 OBJECTIVES

- A. The basic schedule control mechanism for the Agreement shall be the Project Control Schedule. The Project Control Schedule shall be prepared from a detailed schedules and cost estimates covering the full scope of the Services and the Work.
- B. A detailed schedule for the Services will be prepared by the Consultant as described in Paragraph 18.6 below and developed in accordance to the WBS, reference LCP Work Breakdown Structure MSD-PJ-010 contained in Part 2, Exhibit 6 Company Supplied Data, on a package by package basis. The detailed schedule for the Services must be aligned with the detailed estimate for the Services, reference Exhibit 5, Section 7. The detailed schedule for the Services shall encompass Consultant's entire scope of Services as defined in Agreement, including, but not limited to, reimbursable costs and fixed fee. It will contain sufficient detail for full understanding of how all activities contribute to the overall cost and schedule of the Services.

- C. Once approved by Company, the Project Control Schedule shall act as the Baseline for the Services from which the Consultant shall regularly assess schedule performance and deviations.
- D. The Project Control Schedule shall appropriately reflect the entire Services and the Work, including Contractors, Suppliers and other third party service providers, the Project Milestone Schedule, Consultant's Project Execution Plan, and the WBS.
- E. The Project Control Schedule should incorporate and allow for the activities and requirements of Company and Company's Other Consultant's working on Project, identify and accommodate critical issues and potential constraints on execution, and facilitate monitoring and control of scheduled activities and timely identification of potential problem areas.
- F. The Project Control Schedule should show activities that provide sufficient detail in all areas of the Project's execution (design, procurement, regulatory, fabrication, transportation, installation, construction, and Completions) to enable monitoring and control of those execution areas impacted by key Project issues. Schedule forecasts should give a complete and accurate picture of the current status of the Services and the Work, including approved and pending Changes, and also including the consequences of overrun and under run work-hours, productivity, and durations irrespective of whether Consultant or Company is responsible.
- G. Schedule control activities should interface effectively with the progress measurement system. Progress measurements shall be made in such a manner that the physical progress of the Services can be related easily to established Project Milestone Schedule and Consultant's detailed schedule for the Services and the Work.
- H. Schedule progress measurement system shall link to its cost management system to allow for accurate and true progress and performance management, including cost and schedule forecasting.
- I. All schedules should be prepared and maintained based on input and requirements from Consultant's user groups such as Project management, planning and controls, engineering, procurement, work package preparation, fabrication, transportation & logistics, construction, Completions, Contractors, as well as Company and Company's Other Consultants as appropriate.
- J. Consultant will be responsible for developing recovery plans and their attendant schedules if schedule slippage is apparent. These will be reviewed with

Company, implemented upon approval, monitored as to whether recovery plans are successful, and adjustments made as needed to keep the Services and the Work on schedule.

18.4 CONSULTANT DUTIES

With respect to planning, scheduling and schedule control of the Services and the Work, Consultant shall:

- a) Prepare, implement and maintain a Schedule Development and Control Plan for the Project as described in section 18.5.1 of this Coordination Procedure. Consultant's Schedule Development and Control Plan shall use methods and procedures that are recognized as industry best practices.
- b) Guide and control the progression of activities in the Services and the Work against comprehensive, integrated, timely, management-directed plans and schedules utilizing a current version of Primavera Project Management software.
- c) Prepare detailed schedules showing definitive plans for execution of the Services and the Work.
- d) Impose the same schedule and progress measurement requirements in the Agreement, as a minimum, on Contractors, Suppliers, agencies, and other service providers.
- e) Analyze, forecast, and report the progress of the Services and the Work using industry recognized earned value management practices as compared to current Work plans and overall schedule, summarizing the results of the schedule analysis in the monthly progress report, which shall include an agreed milestone listing with target dates and current forecast dates.
- f) Take appropriate corrective action to maintain the progress of the Services and the Work in accordance with the Project Milestone Schedule so as to reach completion on, or before, the Scheduled Completion Date.
- g) Measure progress of activities for each major Project component at an agreed upon periodic basis. To the extent that progress of part or all of the Services is behind schedule, Consultant shall measure progress more frequently, as required by Company.
- h) Incorporate the results of progress measurement and related status information into schedule forecasts, monthly progress reports, and other reports as required under this Agreement.

- i) Provide access to all details of schedule preparation, progress measurement, and schedule updates when requested by Company.
- j) Make reasonable changes in the schedule preparation, progress measurement, and schedule control procedures at Company's request.

18.5 COMPANY DUTIES

- A. Provide information to Consultant that Consultant may need to execute its schedule development and control duties and keep Consultant advised of key schedule dates Consultant needs to know to coordinate its activities with those of Company and Company's Other Consultants.
- B. Company will review, upgrade as necessary to meet Agreement requirements, and approve the Consultant's Schedule Development and Control Plan.
- C. Company shall review and monitor Consultant's scheduling and control efforts and progress assessments.
- D. Company may request corrective action from Consultant if progress assessments reveal significant schedule slippage.

18.6 SPECIFIC REQUIREMENTS

18.6.1. Consultant's Plans

- A. Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company its Schedule Development and Control Plan for the Project. Specific guidelines and expectations of the content of the Schedule Development and Control Plan are included in Appendix 18.1.
- B. Consultant's Schedule Development and Control Plan shall cover all essential areas of schedule development and control, including schedule development, schedule analysis, schedule forecasting, schedule reporting, and corrective action. In particular, the plan shall provide a detailed description of Consultant's progress measurement system. The progress measurement plan should describe in detail how Consultant will measure, verify, and report physical progress of each major activity within Consultant's and Contractor's scope (e.g., engineering, procurement, fabrication, construction and Completions and installation).
- C. In cases where portions of the Services will be subcontracted, Consultant shall, at least one (1) month prior to subcontract award, submit to Company its intended schedule control, progress measurement and data reporting procedure(s) for that portion of the Services. Consultant shall impose the same

schedule and progress requirements in the Agreement, as a minimum, on Contractors, Suppliers, agencies, and other third party services.

- D. The plan will be reviewed by Company, and Company may require modifications to the procedures or recasting of the information in different formats to those proposed by Consultant in order to meet Company's requirements. Such a review may not constitute an approval, control, or direction over the execution means, methods, or sequencing, or its ability to complete the Services in a timely manner. Consultant shall permit Company access to Consultant's basis, norms and historical data to review and validate Consultant's plan. The plan submitted for review shall include printed (hardcopy and .pdf), as well as native electronic files. Included with the submittal shall be all of the information required to reproduce the submittal, including, but not limited to the scheduling software settings, the working calendars, the application time conversion factors, and precedence and scheduling output reports from the scheduling software.

18.6.2 General Scheduling Requirements

18.6.2.1 Consultant's scope of Services for planning, scheduling and schedule control activities for the Project shall include the following requirements, at a minimum:

- a) Develop plans and schedules for the Services and the Work at summary and detailed levels as required to effectively undertake and manage the Services and the Work to meet the Project Milestone Schedule. All schedules shall represent the total Services covering the entire duration of the Services, and include roll-up details of all Contractor's schedules.
- b) Produce all required schedules required to meet the key deliverables requirements of the Company's Gateway Process.
- c) Produce a time-scaled bar chart schedule and associated logic network which shall set forth the order and estimated times by which all Project activities are planned to be completed. These documents shall identify the critical and near-critical paths (a near-critical path is defined as any series of activities whose completion is within a specified duration of the critical path completion. Generally, this duration will be one (1) calendar week for design and one (1) month for construction). The logic network shall clearly indicate all restraints and interrelationships. These documents should separate activities into the WBS areas and shall incorporate the Project Milestone Schedule.
- d) Identify and provide a description of those activities associated with material sources, Suppliers, Contractors, and offsite fabrication. The schedules should show all contracting activities (e.g., preparation of the bid package, bidding period, bid review and agreement award, engineering duration, field

mobilization, and duration of field construction). The schedule should also show the order date and delivery span for all major items of equipment; including sequential deliveries from a Supplier.

- e) Include time-resource sheets for each activity. This data shall include a description of each activity, descriptions of the resources including work-hours, materials, and equipment to be employed in completing each activity and the duration of time for which the resources will be employed. The construction work-hours shall be broken down by directs (by craft / NOC code) and in-directs, and by Contract. Material descriptions shall include type and quantity of bulk materials to be procured and installed by either of Consultant, Contractor, or Supplier.
- f) Progress measurements shall be made in such a manner that the physical progress of the Services can be related easily to Project Milestone Schedule and Consultant's Project Control Schedule, and supported detailed schedules for the Project. Progress shall be evaluated on discrete, identifiable deliverables for each major Project activity weighted by budgeted work-hours to determine a total percent for each activity. Physical progress measurement relates to the assessment of the proportion of actual Work accomplished towards completion of given project deliverables. It is not a comparison of spent versus budgeted work-hours.
- g) Assess progress for all progress earning activities required for each Project component (regardless of source). As additional progress earning scope is identified, it is added to the base level of Services via the Agreement's Change Management process, to be accomplished and progress measured and reported like all other Consultant's Services.
- h) Reflect the resource requirements and distribution, including critical resource leveling caused by Consultant's constraints, external interfaces and Company imposed constraints used to develop the schedule activity durations.
- i) Include histograms of direct manpower (by craft / NOC code), subcontract, in-directs, and total manpower for each major construction package associated with the WBS physical components.
- j) Indicate the schedule calendars used. This shall include daily work hours, work week, shift schedule, scheduled facility shutdowns (if any), and holidays used to develop the schedule. Any planned non-work periods (e.g. adverse weather or environmental conditions) shall be clearly indicated and a narrative shall be supplied indicating the period of non-work and the rationale for the non-work period.

- k) Show status of interfaces within the components of the Project (i.e. engineering, procurement, construction, etc.) and between the Consultant, Contractors, and Suppliers.
- l) Exclude from physical progress measurements home office and field support functions such as project management, coordination, and controls, engineering office follow-up during construction, construction/fabrication management and supervision, warehousing and material handling, clean-up,
- m) Ensure that no activity for which physical progress can be earned be given full progress credit until rework for that activity has been completed (or deemed to be completed) and verification of Quality has been accomplished. The activity shall be held at 97% complete until a signoff has been received from the Quality department.
- n) Produce a monthly progress assessment of the Project, including Contractor's activities, complete with written narrative commentary regarding progress, reasons for deviations from plan, their implications on the Project Control Schedule, corrective actions planned, the status of earlier corrective actions taken, anticipated problems for the next period and their solutions, and changes to planned activities. If any critical path activity is behind schedule, the written narrative will include an explanation of the cause and proposed remedial actions necessary to get back on schedule.
- o) Produce and maintain a schedule network that is logically-linked, with a minimal number of constraints utilized. Where constraints are required, the less possible constraint necessary to meet the required objective shall be used. The reason for the constraint shall be noted in the notebook file for that activity.
- p) The use of activity lags is discouraged. Where the use of lags is considered, Consultant shall consider if the use of an activity to represent the lag is a reasonable representation of the condition being modeled.
- q) The scheduling option that retains the current logic ("retained logic") of activities started out of sequence is to be used. Where necessary, the logic for those activities for which the relationship is no longer applicable shall be manually changed.
- r) Any float time not on the Project critical path shall belong to the Project and may be used by the Company or Consultant to optimize the progress.
- s) In general, activity durations (with the exception of procurement activities) shall not exceed twice the update frequency.

- t) All labour resources shall be coded to allow data manipulation, reporting and extraction by NOC code.
- u) Consultant will develop and consistently utilize an activity coding system for the schedule and prescribe same to Contractors. This coding system shall be supplied to Company. The activity coding system shall be designed to enable Project physical component, responsibility, system, discipline, and area related presentations of scheduling and progress.

18.6.2.2 Consultant will develop its detailed schedules in a hierarchical manner and Consultant will maintain the ability to roll-up individual activity assessments into an overall schedule assessment for the Project. The Project Control Schedule will roll up from the most detailed level to various summary levels, in line with the project WBS, and the Project Milestone Schedule.

18.6.2.3 Consultant and Contractors shall develop the schedules for the Services and Project utilizing a current version of Primavera Project Management software.

18.6.2.4 Company shall have free and direct access to all information input to and generated under Consultant's progress and performance management systems, including, but not limited to, planning, scheduling, progress measurement, person-hours, manpower, and productivity data. This access shall be for data at any level including interface data and data prepared by Contractors.

18.6.2.5 Consultant shall provide Company with its detailed schedules and Project Control Schedule in hard copy and electronic form. The native electronic file shall include all information necessary to duplicate Consultant's schedule, progress measurement analysis, and resource requirements. In addition to the electronic file, the schedule software settings, calendar definitions, and application generated scheduling report shall be included.

18.6.3 Specific Requirements for the Project Control Schedule

18.6.3.1 Within the time specified in Table 1.1 of Section 1, Consultant shall prepare and submit to Company a detailed Project Control Schedule consistent with the milestone dates in the Project Milestone Schedule and with the detailed estimate for the Services. This Project Control Schedule shall show definitive plans for execution of the Services and the Work including but not limited to the achievement of each milestone on or before the dates stipulated in Exhibit 7. The Project Control Schedule shall be based upon Consultant's current knowledge of the scope of the Services, Consultant's Execution Plans, and reasonable and realistic durations for the activities in the schedule. To this regard it is planned that the Project Control Schedule will be revised for Gate 3 of Company's Gateway Process consistent with the timing specified by the milestone the Project Milestone Schedule.

18.6.3.2 The Project Control Schedule sets forth Consultant's scheduling plans for execution and control of the Project and includes:

- a) The summarized logical sequence main elements during Services under the Agreement;
- b) The summarized logical sequence of main elements of the Work;
- c) Start and completion dates for all major activities within the Services and the Work; and
- d) All identified Company and Consultant milestones including those in the Project Milestone Schedule.

18.6.3.3 Company's review and acceptance of the Consultant's Project Control Schedule is for conformance to the requirements of the Agreement. Review and acceptance by the Company of the Consultant's Project Control Schedule does not relieve the Consultant of any of its responsibility whatsoever for the accuracy or responsibility of the Project Control Schedule, or of the Consultant's ability to meet the milestone dates and the Scheduled Completion Date contained in the Project Milestone Schedule, nor does such review and acceptance warrant, acknowledge or admit the reasonableness of the logic, durations, manpower or resource loading of the Contactor's Project Control Schedule.

18.6.3.4 After Company's review and acceptance, the Project Control Schedule shall become the control baseline for assessment and management of progress and performance status for the Services and the Work. Consultant shall report progress and forecast against this Project Control Schedule and Scheduled Completion Date, as adjusted only for approved Change Orders.

18.6.3.5 The Project Control Schedule shall contain milestones and activities to which the detailed schedules of Contractors' Work shall roll-up to for progress reporting.

18.6.4 Monthly Updates

As the Project progresses, Consultant shall prepare monthly analyses of the progress of the Services and the Work as compared to the Project Control Schedule, with particular emphasis on those activities on the critical and near-critical paths. Consultant shall review the progress of the Services and the Work and forecast the remaining duration of each activity on the Project Control Schedule and compare the forecasted completion date to the Scheduled Completion Date.

The forecasts shall be in the form of updated logic diagrams and accompanying output data. Any deviations shall be explained and plans to recover slippages shall be presented. Forecasts shall reflect the effects of changes and of actual experience with work-hour expenditures, equipment / material delivery times, quantities adjustments and other factors such as those outlined below.

- A. Estimated engineering work-hours shall be replaced with spent to-date plus forecasted to complete work-hours, as these are established by comparing actual physical progress with planned progress. Engineering analysis should be done by discipline and consider discipline resource availability.
- B. Estimated equipment and bulk material delivery times shall be replaced with purchase order delivery dates as modified by Consultant's experience with specific Suppliers.
- C. Construction durations based upon estimated design quantities shall be updated by replacing the estimated design quantities with actual quantities and Consultant's material take-offs (e.g., tonnage of structural steel, cubic meters of excavation, square meters of concrete formwork, lineal meters of piping, lineal meters of electrical and instrument cable and cable trays, number of instruments, number of transmission towers, kilometers of road, cubic meters of concrete).
- D. As actual fabrication and construction progress and productivity data becomes available, it shall be reflected in activity durations. This analysis shall incorporate such items as consideration of resource availability, remaining overtime / shifting flexibility as agreed with Company, and work face availability (by craft/NOC code).
- E. Latest status of major internal and external interfaces.
- F. Separate curves showing the earned physical progress versus planned progress. These measurements shall be in the form of progress S-curves showing planned, actual and forecast progress (cumulative and period) for each of the major elements of measurable items. The minimum required progress curves shall include:
- Engineering – An overall progress curve for engineering activities within the Consultant's scope, and a curve for each major engineering discipline by Project and physical Component. Progress shall be recorded according to Consultant's pre-defined completion stages for individual documents and drawings.
 - Procurement – A progress curve for overall procurement activities, and curves for equipment and bulks broken down as follows: requests for quotations issued, purchase orders awarded, Supplier drawings received - both initial submittal and approved submittal (equipment only). Identification of items for procurement and initial screening of sources,

placing of purchase orders, Factory Acceptance Tests, and arrival and inspection of materials and equipment at each Work Site.

- Construction and installation including excavation, concreting, fabrication, erection, transportation, and installation. A progress curve for overall fabrication, construction activities within the Project, and curves for each principal fabrication or construction activity or discipline by unit or by area and for each major Contractor. Consultant shall provide the following information: units of measure (e.g., metric tonnes, meters), actual quantities installed during the period, forecasted quantities at completion, and percent physical progress (defined as actual quantities / forecasted quantities to complete). Sufficient backup information shall also be available to show location of actual quantities installed. Company reserves the right to verify, or have an independent third party verify, the progress reported by the Consultant.
 - Completions (including Mechanical Completion, MC Handover) – Punch-List items, total and number completed by unit checking, pressure testing, function testing and commissioning.
- G. Histograms indicating actual to date and planned direct and indirect resources by month. The resource projections shall include production (progress earning) engineering by discipline and principal construction requirements by craft, NOC code or by Contractor resources. Histograms should show equivalent resources adjusted for workweek differences
- H. Tracking profiles that indicate actual versus planned productivity for the Services and the Work. They shall include the productivity of engineering by discipline and construction activities by craft or by Contractor. Productivity calculations and reporting shall be based upon the ratio of earned value to actual value, meaning that values in excess of unity (1) represent better than expected productivity, while values lower than unity (1) represent lower than expected productivity.
- I. Narrative highlights of any important changes during the reporting period, special actions being implemented or recommended, and the outlook for activities that will be started or finished during the next 6 to 8 weeks (4 update cycles).
- J. A tabulation of any significant delays, including their cause, the identification of the parties assigned responsibility to resolve each issue, the steps planned to resolve the issue, and when/where it will be accomplished. This schedule update and analysis shall become a regular part of Consultant's Monthly Progress

- K. The native electronic files, along with all software settings and calendars necessary to reproduce the schedule with Company's system.
- L. A scheduling report, generated by Primavera Project Management software.
- M. A precedence report, indicating the predecessor and successor of each activity in the network.
- N. A variance report, indicating movement of forecasted or current dates against Baseline dates.
- O. Schedule float graphical analysis indicating the total amount of positive or negative schedule float in the Project Control Schedule.

18.6.5 Period Updates

Consultant shall submit the following information on a periodic basis:

- A. Progress summary showing both planned and actual figures by overall, by phase and discipline.
- B. A three period bar chart schedule, including last period's progress and a two period look-ahead reflecting both Consultant and Contractor related activities.
- C. Comparison, on a daily basis, between the total number of Personnel actually engaged on the Services and the number planned. This comparison shall be broken down by disciplines or craft (with NOC code) compatible with manpower plans.
- D. Status and discussion of punch-list items once they are generated.
- E. The period frequency may change based upon the phase of the work scope, and if there is an attempt to recover or accelerate the Services.

18.6.6 Level of Detail

The level of detail included in these Consultant's detailed schedules should increase during the performance of the Services commensurate with improved Project definition and evolving Project Execution Plans. As the Services and Project execution progresses, Consultant shall develop current work plans that focus upon subsequent phases, as follows:

- A. Current work plan for construction – developed in an iterative fashion, with the level of schedule information increasing in accordance with the level of design. The schedule shall be developed in a “rolling wave” fashion, with greater emphasis placed upon the front-end activities, with development certainty cascading through the schedule timeline in alignment with design progression
- B. Current work plan for completion – developed before construction is 50% complete. It shall focus on back end (final 50%) construction activities, stress integration of construction with planned Completions activities and shift from an area construction mode to a major physical component mode. Punch List items are to be included in this work plan.
- C. Clearly indicate the critical and near-critical paths for each physical component when phased completion of units or systems is specified and provide forecast dates of handover of major sections, areas, or systems, the definition of which will be provided by Company.
- D. Work plan for Completions – developed before construction is 50% complete. It should clearly show unit and system turnovers and their interdependencies for plant commissioning and shall incorporate input from Company regarding its Completions activities and reflect a system mode of planning.

18.6.7 Corrective Action and Schedule Slippage

- A. Consultant shall take Company approved corrective action whenever there is an identified trend which indicates that the current Scheduled Completion Date will not be achieved, or which indicates an opportunity to shorten the overall Project schedule or counteract potential schedule slippages.
- B. After Consultant initiates corrective action, Consultant shall review the results of this action to determine whether it has been effective in accomplishing its intended purpose.
- C. Consultant shall review all corrective actions with Company at least monthly. This review shall include results of those actions taken previously; actions initiated since the last review, and identified trends, together with contemplated corrective actions to halt/reverse adverse trends or to take advantage of identified opportunities.
- D. If Consultant falls behind the Project Milestone Schedule then Consultant shall propose, at Company’s request, a schedule recovery plan that describes how the current schedule will be recovered in a reasonable period of time.

GUIDANCE AND EXPECTATIONS

APPENDICES

APPENDIX 18.1

Consultant's Schedule Development and Control Plan should include, at a minimum, the following items:

- A. How planning and scheduling information will flow among the various groups (e.g., project management, engineering, procurement, contracting, construction, Completions, controls).
- B. How Consultant's detailed schedule and current work plans will be developed, reviewed and updated.
- C. The methodology that Consultant will use to analyze and forecast the progress of the Work relative to current schedules.
- E. How Consultant's plans and schedules shall encompass all relevant functions and activities of Consultant, Contractors and Suppliers required for the Services and the Project, from the date Agreement is executed through completion of the Services. They shall also include related activities of other Project participants, such as Company and Other Consultants.
- F. How corrective action, when required, will be initiated, implemented, and tracked.
- G. How Consultant's schedule control activities interface with progress measurement and cost control activities and organizations.
- H. How interface management will be addressed. Interface management includes all key internal interfaces within the work scope of the Consultant as well as all key interfaces between the Consultant's Services and Other Consultants, Company, or any other third party. The plan will define how interfaces are identified, stewarded, and their status reported.
- I. How resource analysis will reflect the performance to date versus the plan. Consultant's plan will consider planned productivity patterns throughout engineering and construction, use of overtime and multiple shifting to allow better use of available resources or the bringing on of more resources, and other corrective actions to ensure meeting Project milestones.
- J. The number, types, uses, frequency of updates (and responsibility for updates), and level of detail for each of the various Project schedules the Consultant intends to use to control the execution of the Project.

- K. The methods that will be used to measure physical progress of each of the various activities or groups of activities in engineering, procurement logistics, fabrication, construction, Completions, installation for the Services. Methods for engineering shall specifically address use of CADD (both 2D and 3D).
- L. The methods to control over-progressing of activities – verification all activities reported as 100% complete are actually complete.
- M. The method for weighting and combining individual and overall progress measurements to arrive at the craft / discipline and overall progress assessments for engineering, procurement, fabrication, installation, Completions and other major activities related to the Services. Budgeted work-hours are the preferred methods of weighting, where feasible. Progress weightings shall be subject to Company's review and agreement and once agreed shall not be changed without Company's prior written approval.
- N. Procedures within Consultant's organization for review and verification of progress measurement information prepared at each Site.
- O. The method for recognizing the impact of rework on apparent progress, during engineering, procurement, and fabrication (construction), and the method for specifically progressing and tracking the Services.
- P. The methods and procedures for incorporating the effects of Changes Orders on the assessment of progress.
- Q. Coding system for schedules.
- R. Methods for analyzing critical path and conducting float analysis.
- S. Procedure for re-baselining with Company approval.

EXHIBIT 6

COMPANY SUPPLIED DATA

Introduction

This Exhibit contains a listing of documentation and data that will be issued to Consultant in accordance with the noted schedule of issuance. Subsequent revisions to documents already issued to Consultant will be formally re-issued to Consultant.

Consultant will be required to formally review all documentation and data listed herein as it is provided to Consultant by Company. Consultant's formal review process is described in Exhibit 5, Section 11.

| Doc. No. | Title | Revision | Schedule of Issuance | | |
|---------------------------------|---|----------|----------------------|--------------------|----------------------|
| | | | At RFP Issue | At Agreement Award | Post Agreement Award |
| GENERAL & PROCEDURAL | | | | | |
| MSD-HS-001 | Lower Churchill Project - Occupational Health and Safety Policy | | | X | |
| MSD-IM-002 | Lower Churchill Project - Information Management Policy | | | X | |
| MSD-IM-003 | Lower Churchill Project - Information Management Strategy | | | 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-006 | Cost Estimate Classification System | | | X | |
| MSD-PJ-010 | Lower Churchill Project - Project Work Breakdown Structure | | | X | |
| MSD-QM-001 | Lower Churchill Project - Quality Policy | | | X | |
| MSD-QM-020 | Lower Churchill Project - Overarching Quality Assurance Plan | | | X | |
| MSD-RI-001 | Lower Churchill Project - Project Risk Management Policy | | | X | |
| MSD-RI-002 | Lower Churchill Project - Project Execution Risk and Uncertainty Ranking Matrix | | | X | |
| MSD-RI-004 | Lower Churchill Project - Risk Management Philosophy | | | X | |
| Rpt. PM0010 | Regulatory / Permitting List | | | X | |
| DESIGN BASIS DOCUMENTS | | | | | |
| MSD-PM-006 | Lower Churchill Project - Basis of Design | | | X | |
| TECHNICAL REPORTS | | | | | |
| General | | | | | |
| GEN-EN-001 | Synopsis of Engineering Studies | | | X | |
| HOLD | Hydraulic Modeling of the River - 2010 update | | | | X |
| MF1091 | Desktop Study – Implications/Consequences of Constructing Muskrat Falls Prior to Gull Island | Final | | X | |
| HOLD | Review Impacts of Earlier Construction of Muskrat Falls on Gull Island and Later Construction of Gull Island on Muskrat Falls | | | X | |
| Muskrat Falls | | | | | |
| MF1010 | Review of Variants | Final | X | | |
| MF1020 | Muskrat Falls Site Investigations | Final | | | X |
| MF1050 | Spillway Design Review | Final | X | | |
| MF1080 | Review of Construction Camp and Other Infrastructure | Final | X | | |
| MF1090 | Review of Access Roads and T&W Bridge | Final | X | | |
| MF1120 | Potential Impact of Reservoir Flooding on the TLH | Final | | | X |
| MF1130 | River Operation During Construction and Impounding | Final | X | | |
| MF1250 | Numerical Modeling of Muskrat Falls Structures | Final | X | | |
| MF1260 | Condition Assessment of Existing Pumpwell System (2007) | Final | | | X |

| Doc. No. | Title | Revision | Schedule of Issuance | | |
|------------------------------------|---|----------|----------------------|--------------------|----------------------|
| | | | At RFP Issue | At Agreement Award | Post Agreement Award |
| TECHNICAL REPORTS (Cont'd.) | | | | | |
| Muskrat Falls (Cont'd.) | | | | | |
| MF1271 | Condition Evaluation of Wells and Pumps in the Muskrat Falls Pumpwell System (2009) | Final | | | X |
| MF1272 | Installation of New Piezometers in the Muskrat Falls Pumpwell System (2009) | Final | | | X |
| HOLD | Muskrat Falls 2010 Field Investigation Program | | | X | |
| HOLD | Muskrat Falls Site Access Review | | | X | |
| HOLD | Muskrat Falls Power and Energy Study | | | | X |
| HOLD | Muskrat Falls Pumpwell System Telecommunication Upgrades | | | | X |
| HOLD | Muskrat Falls PMF and Construction Design Flood Study | | | X | |
| HOLD | Muskrat Falls Dam Break Study | | | X | |
| HOLD | Muskrat Falls Ice Study | | | X | |
| HOLD | Muskrat Falls Review and Confirmation of Structure Layout and Interfaces | | | X | |
| HOLD | Muskrat Falls Review of Numerical Modeling | | | X | |
| HOLD | Muskrat Falls Site Information for Tenderers | | | | X |
| HOLD | Muskrat Falls - Review of Saltwater Intrusion | | | X | |
| HOLD | Muskrat Falls - Review of Sediment Plume | | | X | |
| Gull Island | | | | | |
| GI1010 | Gull Island 2007 Site Investigation | Final | | | X |
| GI1013 | Gull Island 2008 Site Investigation | Final | | | X |
| GI1015 | Inspection and Structural Analysis Goose Bay Dock | Final | X | | |
| GI1017 | Update Report - Reassessment of Gull Island Diversion | Final | X | | |
| GI1020 | Study of Concrete Face Rockfill Dam (CFRD) Alternative | Final | X | | |
| GI1030 | Powerhouse Configuration | Final | X | | |
| GI1060 | Review of Structure Layouts and Interfaces | Final | X | | |
| GI1061 | Review of Structure Layouts and Interfaces, 5x450 MW | Final | X | | |
| GI1070 | Ice Study (Gull Island and Muskrat Falls) | Final | X | | |
| GI1071 | Ice Studies (Gull Island) | Final | X | | |
| GI1090 | Review of Construction Camp and Other Infrastructure | Final | X | | |
| GI1100 | Review of Access Roads and Bridges | Final | X | | |
| GI1110 | Hydraulic Modeling of River | Final | X | | |
| GI1130 | River Operation During Construction & Impounding | Final | X | | |
| GI1140 | PMF and Construction Design Flood Study | Final | X | | |
| GI1141 | Upper Churchill PMF and Flood Handling Procedures Update | Final | X | | |
| GI1170 | Seismicity Analysis | Final | X | | |
| GI1180 | Review of Site Access, Goose Bay and Off-Site Infrastructure | Final | X | | |
| GI1190 | Dam Break Study | Final | X | | |
| GI1200 | Gull Island Constructability Review | Final | X | | |
| GI1230 | Gull Island Site Information for Tenderers | Final | | | X |
| GI1280 | Gull Island – Diversion Facilities Numerical Modeling | Final | X | | |
| GI1281 | Gull Island – Power Intake and Spillway Facilities – Numerical Modeling | Final | X | | |
| GI1282 | Gull Island – Diversion Facilities Physical Modeling Technical Specifications | Final | | | X |
| GI1290 | Hydraulic Production Model | Final | | | X |

| Doc. No. | Title | Revision | Schedule of Issuance | | |
|------------------------------------|---|----------|----------------------|--------------------|----------------------|
| | | | At RFP Issue | At Agreement Award | Post Agreement Award |
| TECHNICAL REPORTS (Cont'd.) | | | | | |
| Gull Island (Cont'd.) | | | | | |
| GI1300 | Gull Island 2008 Report Plates (drawings) | Final | X | | |
| GI1310 | Workshop Report on Design and Operational Problems Resulting from Reservoir Preparation. | Final | | | X |
| HOLD | Review of Gull Island 1:60-year Construction Design Flood (letter report) | | | X | |
| HOLD | Gull Island 2010 Field Investigations (temporary bridge and campsite) | | | X | |
| HOLD | Gull Island Bank Stability and Fish Habitat Deltas | | | X | |
| HOLD | Gull Island Review of Storage Areas in Happy Valley - Goose Bay | | | X | |
| HOLD | Gull Island Review Spillway Design Flood | | | X | |
| HOLD | Gull Island Review Design Construction Flood 2010-2011 Ice Observation Program (this would be received in 2011) | | | | X |
| HOLD | Numerical Ice Modeling of the GI Diversion Facilities (this would be received in 2011) | | | | X |
| Reservoir Preparation | | | | | |
| GEN-EN-003 | Reservoir Preparation Plan | B1 | X | | |
| HOLD | Reservoir Preparation Plan - Summaries and Map Sheets – Muskrat Falls | | | | X |
| HOLD | Reservoir Preparation Plan - Summaries and Map Sheets – Gull Island | | | | X |
| HOLD | Reservoir Preparation Plan - Cost and Schedule Estimate | | | | X |
| HVAc Transmission Systems | | | | | |
| AC1020 | Tower type selection, 735 kV | Final | X | | |
| AC1030 | Field Investigations and Construction Requirements - 735 kV TL - GI to CF | Final | X | | |
| AC1050 | Tower type selection, 230 kV | Final | X | | |
| AC1060 | Field Investigations and Construction Requirements - 230 kV TL - GI to MF | Final | X | | |
| AC1080 | Load Control and Failure Containment | Final | X | | |
| AC1090 | Assess Cable De-icing | Final | X | | |
| AC1100 | Conductor Selection | Final | X | | |
| HOLD | 2010 Transmission Corridor LiDAR and Orthophoto Data Collection Program | | | | X |
| HVdc Transmission Systems | | | | | |
| DC1010 | Voltage and Conductor Optimization (c/w Addendum) | Final | X | | |
| DC1020 | HVdc System Integration Study (Vol. 1 to 6) | Final | X | | |
| DC1050 | Corridor Selection & Construction Infrastructure-Gull Island to Soldiers Pond | Final | X | | |
| DC1051 | Field Investigations – HVdc TL – Gull Island to Soldiers Pond (Vol. 1 and 2) | Final | X | | |
| DC1070 | Preliminary Meteorological Load Review | Final | X | | |
| DC1080 | Tower Type Selection and Preliminary Optimization | Final | X | | |
| DC1090 | Site Investigation - Converter Stations Gull Island and Soldiers Pond | Final | X | | |
| DC1110 | Electrode Review - Gull Island and Soldiers Pond | Final | | | X |
| DC1200 | HVdc Overland Transmission Re-estimate | Final | | | X |

| Doc. No. | Title | Revision | Schedule of Issuance | | |
|--|---|----------|----------------------|--------------------|----------------------|
| | | | At RFP Issue | At Agreement Award | Post Agreement Award |
| TECHNICAL REPORTS (Cont'd.) | | | | | |
| HVdc Transmission Systems (Cont'd.) | | | | | |
| DC1210 | VSC Risk Assessment | Final | | | X |
| HOLD | Electrode Review - Confirmation of Type and Site Selection | | | X | |
| HOLD | VSC Technology Review for LCP – (Supplier) | | | X | |
| HOLD | VSC Technology Review for LCP | | | X | |
| HOLD | Review of Holyrood Units 1&2 Conversion to Synchronous Condenser | | | X | |
| HOLD | Automation, Integration, Controls, Monitoring and Remote Operation of Hydro Plants | | | X | |
| HOLD | Ice Loadings on HVdc Line Crossing Long Range Mountains | | | | X |
| HOLD | Current and Proposed Provincial High Precision Network Section by Section Analysis of Extreme Rime Ice on the Long Range Mountains using WRF Modeling | | | | X |
| HOLD | Long Range Mountains using WRF Modeling | | | | X |
| Other Technical Reports | | | | | |
| N/A | Development of Extra High Voltage Transmission Lines in Labrador – EDM/RSW - 1999 | | | | X |
| N/A | Gull Island Power Development SNC-Lavalin Power Division - October 1997 | | | | X |
| N/A | Gull Island Hydro Electric Development – SNC-AGRA Joint Venture - December 2000 | | | | X |
| N/A | Gull Island to Soldiers Pond Interconnection – Teshmont Consultant Inc. - June 1998 | | | | X |
| N/A | Muskrat Falls Hydroelectric Development – SNC-AGRA - January 1999 | | | | X |
| N/A | Lower Churchill Hydroelectric Generation Project Baseline Report, Application of HADD Determination Methodology – AMEC – December 2007 | | | | X |
| N/A | Evaluate Extreme Ice Loads From Freezing Rain For Nalcor Energy – Kathy Jones – May 2009 | | X | | |
| TECHNICAL PHILOSOPHY DOCUMENTS | | | | | |
| MSD-EN-001 | Operations and Maintenance Philosophy for Design | | | X | |
| MSD-EN-030 | Design Philosophy for LCP Reservoir Clearing | | | X | |
| MSD-EN-031 | Design Philosophy for LCP Environmental Mitigation | | | X | |
| MSD-EN-040 | Equipment Criticality Philosophy | | | | X |
| MSD-EN-043 | Design Philosophy for LCP Temporary Accommodations Complexes | | | X | |
| MSD-EN-044 | Design Philosophy for Impoundment at Gull Island and Muskrat Falls | | | X | |
| MSD-EN-045 | Design Philosophy for Gull Island River Diversion | | | X | |
| MSD-EN-046 | Design Philosophy for Gull Island South Side Access | | | X | |
| MSD-EN-047 | Design Philosophy for Gull Island Permanent Accommodations | | | X | |
| MSD-EN-048 | Design Philosophy for Gull Island Powerhouse Layout | | | X | |
| MSD-EN-049 | Design Philosophy for LCP Equipment Reliability & Redundancy | | | X | |
| MSD-EN-050 | Design Philosophy for LCP Fish Habitat Compensation | | | X | |

| Doc. No. | Title | Revision | Schedule of Issuance | | |
|---|--|----------|----------------------|--------------------|----------------------|
| | | | At RFP Issue | At Agreement Award | Post Agreement Award |
| TECHNICAL PHILOSOPHY DOCUMENTS (Cont'd.) | | | | | |
| MSD-EN-051 | Design Philosophy for LCP Automation, Control, Monitoring & Remote Operation | | | X | |
| MSD-EN-052 | Design Philosophy for LCP Communications Systems | | | X | |
| MSD-EN-053 | Design Philosophy for LCP Converter Stations | | | X | |
| MSD-EN-054 | Design Philosophy for Muskrat Falls River Diversion | | | X | |
| MSD-EN-055 | Design Philosophy for HVAC Transmission Line | | | X | |
| MSD-EN-056 | Design Philosophy for HVDC Transmission Line | | | X | |
| MSD-EN-059 | Design Philosophy for LCP Water Fowl Habitat | | | X | |
| MSD-EN-060 | Design Philosophy for Emergency Repair of Overhead Transmission | | | | X |
| MSD-EN-062 | Design Philosophy for Muskrat Falls Powerhouse Layout | | | X | |
| MSD-EN-063 | Design Philosophy for Facility Operational Security | | | | X |
| MSD-EN-064 | Design Philosophy for LCP Construction Power | | | X | |
| MSD-EN-068 | Design Philosophy for Reservoir Debris & Trash Management | | | X | |
| MSD-EN-069 | Design Philosophy for LCP Environmental Rehabilitation | | | X | |
| MSD-OP-006 | Operations and Maintenance Philosophy | | | | X |
| MSD-OP-008 | Sparing Philosophy | | | | X |
| MSD-OP-011 | Commissioning Philosophy | | | | X |
| MSD-OP-013 | Turnover Documentation Requirements | | | | X |
| MSD-PM-010 | Lower Churchill Project - Life Cycle Cost Design Philosophy for Equipment, Assets and Structures | | | | X |
| MSD-PM-017 | Ready for Operations Requirements | | | | X |
| HOLD | Design Philosophy for HVdc Electrode Sites | | | X | |

EXHIBIT 7

PROJECT MILESTONE SCHEDULE

1.1 PREAMBLE

In accordance with Part 1, Section 0.5, Part C, Technical Proposal, Consultant shall provide, in its proposal, a summary schedule for the implementation of each discrete Component for which it is submitting a proposal to provide Services. The schedule(s) provided by Consultant in its submission shall provide sufficient detail so as to demonstrate a solid understanding of the elements that comprise the respective Component and the associated linkages and dependencies as related to implementation. The schedule(s) shall show start dates, finishing dates and durations for all key engineering, procurement and construction activities, and shall include and align with Company’s Milestone Dates as provided herein.

1.2 MILESTONE DATES

The following Milestone Dates relate to Company’s overall schedule for implementation of each development option as described in Section 3.2 of Exhibit 2. At the time of execution of the Agreement this Exhibit will be updated and the Milestone Dates provided at that time will form part of the Agreement. Any revisions to the Milestone Dates subsequent to execution of the Agreement will be managed in accordance with the provisions of the Agreement.

1.2.1 Muskrat Falls Development – Scenario A

| | Milestone | Date |
|-----|--|----------------|
| 1. | Award Purchase Order for supply and installation of Accommodations Complex for Muskrat Falls Site (by Company) | October 2010 |
| 2. | Award EPCM Agreement for Project | November 2010 |
| 3. | Start Engineering and Detailed Design Services under the EPCM Agreement | January 2011 |
| 4. | Environmental Assessment Release for Generation Project obtained (by Company) | May 2011 |
| 5. | Start Construction of South Side Access Road for Muskrat Falls | June 2011 |
| 6. | Project Sanction / Gate 3 | September 2011 |
| 7. | Access Road Ready for South Side Access at Muskrat Falls Site | October 2011 |
| 8. | Environmental Release for Labrador-Island Transmission Link obtained (by Company) | October 2011 |
| 9. | Checkpoint 1 | June 2012 |
| 10. | Cofferdams Completed and River Diverted through Spillway – | July 2014 |

| | | |
|-----|---|--------------|
| | Ready for Phase 1 of Muskrat Falls Reservoir Impoundment | |
| 11. | Start Phase 2 of Muskrat Falls Reservoir Impoundment | June 2016 |
| 12. | Muskrat Falls to Churchill Falls Transmission Interconnect Ready for Power Transmission | August 2016 |
| 13. | First Power from Muskrat Falls | October 2016 |
| 14. | Full Power from Muskrat Falls | May 2017 |
| 15. | Labrador-Island Transmission System Ready for Power Transmission | January 2017 |

1.2.2 Muskrat Falls Development – Scenario B

| | | |
|-----|---|----------------|
| 1. | Award Purchase Order for supply and installation of Accommodations Complex for Muskrat Falls Site (by Company) | October 2010 |
| 2. | Award EPCM Agreement for Project | November 2010 |
| 3. | Start Engineering and Detailed Design Services under the EPCM Agreement | January 2011 |
| 4. | Environmental Assessment Release for Generation Project obtained (by Company) | May 2011 |
| 5. | Start Construction of South Side Access Road for Muskrat Falls | June 2011 |
| 6. | Project Sanction / Gate 3 | September 2011 |
| 7. | Access Road Ready for South Side Access at Muskrat Falls Site | October 2011 |
| 8. | Checkpoint 1 | June 2012 |
| 9. | Cofferdams Completed and River Diverted through Spillway – Ready for Phase 1 of Muskrat Falls Reservoir Impoundment | July 2014 |
| 10. | Start Phase 2 of Muskrat Falls Reservoir Impoundment | June 2016 |
| 11. | Muskrat Falls to Churchill Falls Transmission Interconnect Ready for Power Transmission | August 2016 |
| 12. | First Power from Muskrat Falls | October 2016 |
| 13. | Full Power from Muskrat Falls | May 2017 |

1.2.3 Gull Island Development – Scenario A

| | Milestone | Date |
|-----|---|----------------|
| 1. | Award Purchase Order for supply and installation of Accommodations Complex for Gull Island Site (by Company) | October 2010 |
| 2. | Award Purchase Order for supply and installation of South Side Access Infrastructure for Gull Island (by Company) | October 2010 |
| 3. | Award EPCM Agreement for Project | November 2010 |
| 4. | Start Engineering and Detailed Design Services under the EPCM Agreement | January 2011 |
| 5. | Environmental Assessment Release for Generation Project obtained (by Company) | May 2011 |
| 6. | Project Sanction / Gate 3 | June 2011 |
| 7. | Start Early Works Construction at the Gull Island Site | June 2011 |
| 8. | Environmental Release for Labrador-Island Transmission Link obtained (by Company) | October 2011 |
| 9. | Access Bridge Ready for South Side Access at Gull Island Site | November 2011 |
| 10. | Start Diversion Works | March 2012 |
| 11. | Checkpoint 1 | June 2012 |
| 12. | River Diverted at Gull Island | November 2013 |
| 13. | Start Impounding Gull Island Reservoir | November 2016 |
| 14. | Gull Island to Churchill Falls Transmission Interconnect Ready for Power Transmission | December 2016 |
| 15. | First Power from Gull Island | April 2017 |
| 16. | Labrador-Island Transmission System Ready for Power Transmission | September 2017 |
| 17. | Full Power from Gull Island | June 2018 |

1.2.4 Gull Island Development – Scenario B

| | Milestone | Date |
|-----|---|---------------|
| 1. | Award Purchase Order for supply and installation of Accommodations Complex for Gull Island Site (by Company) | October 2010 |
| 2. | Award Purchase Order for supply and installation of South Side Access Infrastructure for Gull Island (by Company) | October 2010 |
| 3. | Award EPCM Agreement for Project | November 2010 |
| 4. | Start Engineering and Detailed Design Services under the EPCM Agreement | January 2011 |
| 5. | Environmental Assessment Release for Generation Project obtained (by Company) | May 2011 |
| 6. | Project Sanction / Gate 3 | June 2011 |
| 7. | Start Early Works Construction at the Gull Island Site | June 2011 |
| 8. | Access Bridge Ready for South Side Access at Gull Island Site | November 2011 |
| 9. | Start Diversion Works | March 2012 |
| 10. | Checkpoint 1 | June 2012 |
| 11. | River Diverted at Gull Island | November 2013 |
| 12. | Start Impounding Gull Island Reservoir | November 2016 |
| 13. | Gull Island to Churchill Falls Transmission Interconnect Ready for Power Transmission | December 2016 |
| 14. | First Power from Gull Island | April 2017 |
| 15. | Full Power from Gull Island | June 2018 |

EXHIBIT 8

CONSULTANT'S FACILITIES

(To be extracted from the Proposal)

EXHIBIT 9

NEWFOUNDLAND AND LABRADOR BENEFITS

CONSULTANT'S OBLIGATIONS

(EXTRACTS FROM PROPOSAL)

CONSULTANT’S OBLIGATIONS (EXTRACTS FROM PROPOSAL):

Consultant’s obligations (extracts from the Proponents response to the RFP in Part I, Section 0.4 Proposal Form B6 Newfoundland and Labrador Benefits questionnaire) will be added herein, to show Proponents commitment to Newfoundland and Labrador Benefits, including the Attachment “A” Employment Table and the Attachment “B” Expenditure Table.

Attachments:

Attachment “A” Employment Table dated

Attachment “B” Expenditure Table dated

EXHIBIT 10

**FORM OF PARENT COMPANY GUARANTEE
AND FORM OF LETTER OF CREDIT**

FORM OF PARENT COMPANY GUARANTEE

This agreement (hereinafter called the "Guarantee") is made this _____ day of _____, 201_____ by (Parent Company) (hereinafter called "Guarantor") who is the Parent Company of _____; in favour of _____ (hereinafter called the "Company").

WITNESSETH

In consideration of Company entering into contract (hereinafter called the "Agreement") with Guarantor's subsidiary (name of Consultant), whose registered office or principal place of business is (Consultant address) (hereinafter called "Consultant"), for the performance by Consultant of (engineering, procurement and construction management services under the Agreement), the Guarantor hereby agrees with Company as follows:

1. Guarantor guarantees the performance by Consultant, to the satisfaction of Company, of all Consultants obligations under the Agreement.
2. If Consultant fails, to the satisfaction of Company, to perform any of its obligations under the Agreement, or commits any breach thereof, Guarantor shall immediately; (i) take such steps as may, in the opinion of Company, be necessary to have Guarantor perform all Consultants obligations under the Agreement, or remedy any breach thereof; or (ii) take such steps as may, in the opinion of Company be necessary itself, or through a third party other than Consultant, to perform all Consultants obligations under the Agreement, or to remedy any breach thereof. This Parent Company Guarantee shall be valid for a period of twelve (12) months after completion of Services under the Agreement.
3. If Guarantor fails, to the satisfaction of Company, at any time to perform any obligations under this Guarantee, Company may, without the need to give notice thereof to Guarantor, itself perform, or have any third party perform, any such obligations and Guarantor shall defend, indemnify and hold Company harmless from and against any and all claims, losses, damages, costs, and expenses which may be incurred by Company by reason of or in connection with any such failure, including without limitation any and all costs incurred by Company in so performing or so having performed, such obligations.
4. This Guarantee shall take effect as an absolute, irrevocable, continuing guarantee which shall be enforceable by Company without prior notice being served upon or otherwise given to Guarantor.

- 5. Guarantor shall not in any way be released from any of its obligations arising under this Guarantee by: (i) termination of the Agreement; (ii) alterations to the terms of the Agreement; or (iii) forbearance or forgiveness in respect of any matter or thing concerning the Consultant on the part of Company or Consultant.
- 6. The rights and remedies of Company arising under this Guarantee shall operate independently of any rights and remedies Company may have arising under any other agreement (including without limitation the Agreement) or at law, and Company shall not be required to proceed first or at all against Consultant or any other person before enforcing the terms of the Guarantee.
- 7. The obligations, including but not limited to liabilities, guaranteed by the Guarantor under this Guarantee shall not be greater than those of Consultant under then Agreement.
- 8. This Guarantee shall in all respects be construed and interpreted and shall operate in accordance with the laws of the Province of Newfoundland and Labrador, Canada.

IN WITNESS whereof the Guarantor has caused this Guarantee to be executed by its duly authorized representatives the day and year first above written.

(Consultant’s Parent Company Name)
(Guarantor)

By: _____

Name: _____

Title: _____

Draft Letter of Credit

(Bank)

(Date)

To: Nalcor Energy
P.O. Box 12800
500 Columbus Drive
St. John's, NL A1B 0C9
Canada

Irrevocable Standby Documentary Credit

Ref. No.

Pursuant to the request of our customer _____
(hereinafter called **VENDOR**), we hereby establish an Irrevocable Standby Documentary Credit in your
favour, in connection with performance of requirements stipulated in RFP Reference No. issued by you,
for a sum not exceeding a total of

Dollars (\$ _____).

All or part of the amount available under this Credit is payable to you on demand upon presentation of
your drafts at sight drawn on (Bank Approved By Nalcor Energy) St. John's, Newfoundland and Labrador,
Canada.

The effective date of this Credit is _____. This Credit will expire at our office at
on _____.

All of your drafts drawn under and in compliance with the terms of this Credit will be honoured if duly
presented at before-said branch office of the (Bank Approved By Nalcor Energy) on or before the
expiration date notwithstanding any notice that may be given by the **VENDOR** or any other party or
person to us not to pay the same.

After the expiration date, we shall not have any further liability to Nalcor Energy.

This Credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision),
International Chamber of Commerce, Paris, France, Publication No. 500), as amended.

Yours very truly,
(Bank Approved By Nalcor Energy)

BANK's Address

EXHIBIT 11

KEY PERSONNEL

(EXTRACTS FROM PROPOSAL)