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**Subject:** Independent Engineer  
**Date:** Friday, July 27, 2012 11:28:37 AM  
**Attachments:** [.png](#)  
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Gentlemen

Attached is a draft copy of the Recommendation Report for your review and comment. Very little text is dedicated to O&M work and the DG3 budget verification exercise for the feds is not addressed at all. Peter Hickman and Bill Peddle are not available today to sign the attached but I have an e-mail from Peter telling me he's OK with the changes for MWH so we could proceed to award despite their absence. I hope Pat could sign off if can't get Phil's signature before he leaves. I also hope Paul Harrington is available as well.

If all signatures are not possible today it will be necessary to extend the expiry date by a few days. In any event I need to get Jim's signature on the attached and on the Technical Evaluation sheet before the end of the day. Can we get together for a sign-off ?

Do we need to advise the feds or Emera of our intentions before we award ?

I'll work on the contract document this afternoon. It must be signed off by the technical rep. I assume Lance could sign in Jim's absence if necessary. Peter Hickman must also sign. He's on vacation and Wayne will be away next week except on an as-required basis. Very unlikely to get this done and approved in time to e-mail it with the award on Monday. It again seems inevitable that I must extend the expiry date.




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Ross



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<b>LOWER CHURCHILL PROJECT</b>
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**Introduction:**

This evaluation and recommendation contains the following documents:


1. Contracting Strategy - Appendix A
2. Commercial Evaluation – Appendix B
3. Technical Evaluation Spread Sheet – Appendix C
4. Quality Evaluation Spread Sheet – Appendix D
5. Health and Safety Evaluation Spread Sheet– Appendix E
6. Purchase Requisition – Appendix F

**Recommendation:**

Based on Technical, Commercial, Quality, and Health and Safety considerations, the evaluation team recommends that the contract be awarded to MWH Canada for independent engineer services which are required to support project lenders (WBS 5.1.953.0000.0601.02.00):

Recommended Bidder. MWH Canada Inc.  
 Approval to Commit: \$832,000.00 (for 2012)

ACTION	NAME	TITLE	SIGNATURE	DATE
Prepared / Reviewed by:	Ross Beckwith	Commercial		
Reviewed by:	Lance Clarke	Technical		
Reviewed by:	Peter Hickman	Legal		
Reviewed by:	Michelle Alexander	Quality		
Reviewed by:	Bill Peddle	Health & Safety		
Approved by:	James Meaney	Corporate Treasurer & Chief Risk Officer		
Approved by:	Pat Hussey	Supply Chain Manager		
Approved by:	Paul Harrington	Project Director		

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## 1.0 SCOPE OF WORK

A qualified contractor is required to provide independent engineering (IE) services to support lenders and related financial organizations relative to the Muskrat Falls, Labrador Transmission Assets (LTA), and Labrador-Island Link (LIL) projects.

Phase 1 scope includes the following, will commence in August 2012 on behalf of Nalcor, will transition to lenders by early-2013, and is intended to enable the IE to become familiar with the projects, to identify required documentation, and to commence an initial review prior to engagement of lenders:


- review project design and projected performance
- review construction plan and schedule
- review capital budget
- review commercial operation and maintenance services
- review project agreements (such as power purchase agreements)
- review permits and licenses
- review basis of project pro forma financial model
- prepare Independent Engineer's report
- support financial close

Phase 2 commences with financial close, expected in Q3 2013, and consists of the following:

- attend project review meetings
- monitor engineering and procurement relative to milestone schedules
- conduct site visits and review quality control document to assess compliance with milestone schedules
- review change orders to construction contracts
- prepare periodic and final reports and other documentation
- verify project completion

Relevant financial groups, which include lenders, hedge providers, ratings agencies, and the federal guarantor, will rely on the IE to persuade them of the viability of the projects and Nalcor's credit worthiness.

Debt for MF and LTA will be borrowed by one Nalcor entity and debt for LIL will be borrowed by another. Accordingly, (draft and final versions of) two IE reports will be required.

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**2.0 PROCUREMENT PROCESS**

**2.1 Bidder selection**

Prequalification questionnaires were issued to ten (10) companies in an expression of interest (EOI) process in December 2011. The following three companies submitted responses in mid-January 2012:

- Black & Veatch – Overland Park, Kansas
- E3 Consulting – Englewood, Colorado
- MWH Canada – Vancouver, BC

**2.2 Request for Proposal**

The request for proposal (RFP) package was issued on February 2, 2012 to the three pre-qualified bidders. Five Bid Bulletins were issued, one of which extended the closing date to March 6, 2012.

**2.3 Bid Opening**

Opening of the three sealed bids was delayed until April 11, 2012 to facilitate discussions with the provincial government.

**2.4 Provincial Government**


The provincial government determined in April that it has no requirement for involvement in the IE function relative to its role as the equity investor.

**2.5 Federal Government**

The federal government has assessed the EOI process, the RFP process, and the evaluation of bids throughout May, June, and July relative to its role as guarantor.

**2.6 Emera**

Emera has accepted a federal government suggestion that it will engage the same IE for the Maritime Link as will Nalcor for its three projects. Emera will establish an agreement with the successful bidder based on the scope of work, rates, and other details of the Nalcor RFP process.

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2.7 Meetings

All three bidders were invited to bid clarification meetings in St. John’s in early-May. It was determined that the Black & Veatch proposal was not as well developed as the other two. Subsequent clarifications and evaluations were limited to E3 and MWH.

At the request of the federal government, E3 and MWH were invited to meetings in Toronto in late-June to enable government officials and their advisors from Blair Franklin to assess their capabilities. An Emera representative also participated relative to its requirement for an IE for the Maritime Link.

Federal government representatives require that Emera and Nalcor utilize the same contractor for IE services and that annual reports for operating and maintenance (O&M) purposes after start of commercial operations also be provided for the duration of the loan term.

2.8 Additional Scope

In addition to IE services, annual O&M services will be incorporated in the contract to the successful bidder for an initial 5-year term. Because of the size, location, and geographic spread of the three projects, O&M costs could be as much as \$1,500,000.00 to \$2,000,000.00 during that period. In addition to IE services during construction, O&M services will be provided by the contractor on behalf of the lenders and costs will be recovered from Nalcor by the lenders.

2.9 Extensions


The expiry date of the three proposals was extended from May 7 to May 31 to facilitate bid clarification meetings in St. John’s in early-May. The expiry date was subsequently extended as follows to accommodate the involvement of the federal government:

- May 31 to June 30
- June 30 to July 31

**3.0 COMMERCIAL EVALUATION (20%)**

3.1 Budget per approved requisition: \$1,104,000.00 for 2012

3.2 Total estimated cost (MWH):

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Category	2012	2013	2014 to 2018	Total
Services	658,316	779,720	3,713,274	5,151,310
Expenses	35,206	98,718	461,606	595,530
	693,522	878,438	4,174,880	5,746,840
Contingency (20%)	138,704	175,688	834,976	1,149,368
	832,226	1,054,126	5,009,856	6,896,208

3.3 Pricing Summary (excluding taxes):


Original estimated costs for professional services (excluding reimbursables) for both phases 1 and 2 based on resource estimates submitted by the bidders can be summarized as follows:

Bidder	Estimated Cost (\$)	Estimated Hours	Average Hourly Rate
Black & Veatch	3,075,912	10,824	284.18
E3	7,446,865	26,066	285.69
MWH	7,185,670	31,301	229.57

This summary suggests that Black & Veatch had a different perception of the work than the other two bidders. Bid clarification meetings in early-May confirmed the view that Black & Veatch had done less than the other bidders to understand the project and to develop a project-specific proposal. While the expiry date of its proposal was extended as noted above, the evaluation focused on E3 and MWH after mid-May pursuant to which the E3 and MWH estimates developed as follows; additional analysis is provided in Appendix B.

Bidder	Estimated Cost (\$)	Estimated Hours	Average Hourly Rate
E3	5,964,145	20,695	288.19
MWH	5,722,487	27,772	206.05

These costs were not used for evaluation purposes because of the different views of the bidders and because it was assessed that the proposals did not adequately reflect the following attributes of the MF, LTA, and LIL projects:

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- equity to be provided by the provincial government and a guarantee to be provided by the federal government.
- preponderance of crown land and low population will minimize transmission issues.
- geography of MF accommodates minimal spoil, an RCC dam, and low head Kaplan turbines.
- water depths prevent larger ice bergs from entering the Strait of Belle Isle.
- significant up-front work has been done to de-risk the project including turbine and generator model testing and an HDD test hole.
- detailed design is well advanced and is based on proven technology including LCC rather than VSC HVdc cable.
- request for proposal processes are well advanced for submarine cable for the Strait of Belle Isle and for turbines and generators.

Accordingly, the following normalized costs for professional services (excluding reimbursables) were used for evaluation purposes based on 25,000 hours of work and the average hourly rate for each bidder:

Bidder	Hours	Average Hourly Rate (\$)		Total Estimated Labour Cost (\$)
		Per Original Proposal	Clarified Per Appendix B	
Black & Veatch	25,000	284.18		7,104,500.00
E3	25,000		288.19	7,204,750.00
MWH	25,000		206.05	5,151,250.00

Commercial scoring based on the preceding can be summarized as follows where the lowest cost is assigned 100% and scores for the other bids are reduced by the amount by which they are higher than the lowest bid.

Rank	Bidder	Score
1	MWH	100.00
2	Black & Veatch	72.51
3	E3	71.50

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3.4 Exceptions to Agreement Terms and Conditions:

All three bidders took exception to the contract document that was issued with the RFP package including a cap on liabilities. The proposals from MWH have been resolved with input from the Legal and Risk departments.

3.5 Proposal Expiry Date: July 31, 2012

3.6 Delivery Schedule:

Work to commence immediately upon award in late-July 2012. Related key dates are as follows, whereafter the EI would transition to the lending group:

- market sounding road show: October 2012
- RFP for lead arranger: 1 Nov 12 to 31 Jan 13
- binding finance commitment: February 2013

3.7 Key Points:

MWH has offices in British Columbia, Saskatchewan, and Ontario. Nonetheless, as is the case with the other bidders, MWH is also dependent upon resources in the U.S., primarily in Seattle and Chicago. MWH must make appropriate effort to optimize the utilization of personnel to maximize progress and minimize costs.

**4.0 TECHNICAL EVALUATION (40%)**


Detailed Technical Scoring is shown on the Bid Evaluation Sheet provided in Appendix C. This scoring can be summarized as follows:

Rank	Bidder	Score
1	MWH	71.60
2	E3	66.00
3	Black & Veatch	45.00

The three main areas of the technical evaluation are:

- independence
- ability to demonstrate independence to lenders after having worked for Nalcor for a number of months
- ability to convince lenders of the viability of the projects and Nalcor’s credit worthiness



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- technical expertise
- experience with cold climate hydro generation and transmission
- experience in projects with government funding and a guarantor
- experience with EPCM model
- compatibility
- probability of proposed individuals to work cooperatively based on individual styles and proposed methodology

**5.0 QUALITY EVALUATION (20%)**

Detailed Quality Scoring is shown on the Bid Evaluation Sheet provided in Appendix D. This scoring can be summarized as follows:

Rank	Bidder	Score
1	MWH	76.36
2	Black & Veatch	56.36
3	E3	43.64

**6.0 HEALTH AND SAFETY EVALUATION (20%)**

Detailed Health and Safety Scoring is shown on the Bid Evaluation Sheet provided in Appendix E. This scoring can be summarized as follows:


Rank	Bidder	Score
1	MWH	67.3
2	Black & Veatch	50.2
3	E3	10.2

**7.0 BASIS OF RECOMMENDATION**

Ranking weights per the Contract Strategy Document in Appendix A are as follows:

- Commercial 20%
- Technical 40%
- Quality 20%
- Health and Safety 20%


Based on these weights, overall scoring is as follows:

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<b>Criteria</b>	<b>Bidder</b>		
	<b>Black &amp; Veatch</b>	<b>E3</b>	<b>MWH</b>
Commercial	14.50	14.30	20.00
Technical	18.00	26.40	28.64
Quality	11.27	8.73	15.27
Health and Safety	10.04	2.04	23.56
	53.81	51.47	77.37


Recommended: MWH Canada

Basis of recommendation per Contracting Strategy: highest total score.

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**APPENDIX A**

**CONTRACTING STRATEGY DOCUMENT**

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**APPENDIX B**


**COMMERCIAL EVALUATION**

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Quoted costs per CTR estimates were not used for evaluation purposes because of the divergent views of the bidders on the nature of the work. Rather, costs per the attached spreadsheet were used for evaluation purposes based on 25,000 hours of work and the average hourly rate for each bidder.


The lowest cost is assigned 100%; scores for the other bids are reduced by the amount by which they are higher than the lowest bid (for example, 10% higher cost results in 90.9%).

The preceding is summarized in the attached spreadsheet (3 pages).

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**APPENDIX C**

**TECHNICAL EVALUATION SPREAD SHEET**

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**APPENDIX D**


**QUALITY EVALUATION SPREAD SHEET**

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**APPENDIX E**

**HEALTH AND SAFETY EVALUATION SPREAD SHEET**



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**APPENDIX F**

**PURCHASE REQUISITION**