

From: jamesmeaney@nalcenergy.com
To: petermadden@lowerchurchillproject.ca
Cc: pharrington@lowerchurchillproject.ca; gbennett@nalcenergy.com; lanceclarke@lowerchurchillproject.ca; robertwoolgar@lowerchurchillproject.ca
Subject: Re: Revised Comments - IE Report Rev 4
Date: Wednesday, November 20, 2013 10:01:24 PM
Attachments: [_png](#)
[IE Report Rev 5 - LCP Comments.xlsx](#)

Hi Peter

See updated version attached. I have gone through my comments again...scrubbed language and deleted a couple that were already covered by comments of others. Once we consolidate all comments into this list suggest we remove the LCP Rep column and sort in order of report sections. We'll discuss further at 9am tomorrow.

Regards

Jim



IE Report Rev 5 - LCP Comments.xlsx



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You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

Peter Madden---11/20/2013 06:01:10 PM---Here's the most recent version. I would suggest holding off until tomorrow so a couple comments can

From: Peter Madden/NLHydro

To: Paul Harrington/NLHydro@NLHydro

Cc: Gilbert Bennett/NLHydro@NLHydro, James Meaney/NLHydro@NLHYDRO, Lance Clarke/NLHydro@NLHydro, Robert Woolgar/NLHydro@NLHYDRO

Date: 11/20/2013 06:01 PM

Subject: Revised Comments - IE Report Rev 4

Here's the most recent version. I would suggest holding off until tomorrow so a couple comments can be

clarified and Gilbert's added.

I have also sent a note to Robert regarding section 2 review.

2 clarifications on Lance's comments:

- CH0030 subcontractors experience (Table 4-7): we have sent MWH information on this already. I don't think we can suggest that they remove the comments because it is relevant to their review. We may need to follow up with them.

- Section 5.1.13, paragraph 6: Should we say why we disagree?

Thanks

Pete

[attachment "IE Report Rev 4 - LCP Comments.xlsx" deleted by James Meaney/NLHydro]

Peter Madden, MASc, MBA
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Paul Harrington---11/20/2013 05:18:04 PM---Peter I have updated some comments - pls use this version

From: Paul Harrington/NLHydro

To: Peter Madden/NLHydro@NLHYDRO,

Cc: Gilbert Bennett/NLHydro@NLHydro, James Meaney/NLHydro@NLHYDRO, Lance Clarke/NLHydro@NLHydro

Date: 11/20/2013 05:18 PM

Subject: Re: Further comments

Peter

I have updated some comments - pls use this version

[attachment "IE Report Rev 4 - LCP Comments ph.xlsx" deleted by Peter Madden/NLHydro]

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Peter Madden---11/20/2013 05:10:56 PM--- Peter Madden, MASc, MBA Regulatory Compliance Lead (Muskrat Falls and LTA)

From: Peter Madden/NLHydro

To: Paul Harrington/NLHydro@NLHydro,

Cc: Gilbert Bennett/NLHydro@NLHYDRO, James Meaney/NLHydro@NLHYDRO, Lance Clarke/NLHydro@NLHYDRO

Date: 11/20/2013 05:10 PM

Subject: Re: Further comments

[attachment "IE Report Rev 4 - LCP Comments.xlsx" deleted by Paul Harrington/NLHydro]

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Paul Harrington---11/20/2013 04:48:47 PM---I have taken a closer look at Sections 1 and 2- Much of the technical data in Section 1 is so incorr

From: Paul Harrington/NLHydro

To: Peter Madden/NLHydro@NLHYDRO,

Cc: James Meaney/NLHydro@NLHYDRO, Gilbert Bennett/NLHydro@NLHydro, Lance Clarke/NLHydro@NLHydro

Date: 11/20/2013 04:48 PM

Subject: Further comments

I have taken a closer look at Sections 1 and 2- Much of the technical data in Section 1 is so incorrect that it should be discarded - the Basis of Design document should be the technical reference in this section and could be an attachment

My additional comments are in red I dropped them off with you-

Peter

pls send me the spreadsheet you made from my hand written comments - I may want to tweak the wording

Thanks Paul

Paul Harrington

Project Director

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LCP Rep.	Section/Table	Page(s)	Paragraph/Item	Comment
Paul Harrington	1.1	1	2	It is suggested that the following statement made by MWH should be considered when forming the conclusion, as well: '...this report presents professional opinions that the estimated construction and operations costs are reasonable, and that projected financial results of operations will generate sufficient net revenues to repay debt, including revenues to meet debt service coverage requirements as well as to properly operate and maintain the LCP facilities.'
	1.2.1	1	1	This paragraph is not material to the report.
	1.2.2	1	1	This paragraph is not material to the report.
	1.2.3	2	2	This protocol is material to contract LC-PM-082 and does not belong in this report.
	1.3	3	2	315kv (not 345kv)
	1.3	3	3	This paragraph is not material to this report.
	1.3.2	4		This section has a number of errors. The Basis of Design document should be referenced for the revision.
	1.3.3	5		This section has a number of errors. The Basis of Design document should be referenced for the revision.
	1.4	6		This section should simply refer to the site visit.
	2.2.3.4	21	2	The assertion that the work is being performed to a high standard is inconsistent with concerns raised in paragraphs 6 and 7 regarding rock support and slope stability.
	2.2.5	24	3	This paragraph is not material to the report.
	2.2.7	25	1	It is Nalcor's opinion that sufficient data has been provided for the purposes of this assessment regarding adequacy of the design. Remaining analyses are required for enhancement of the existing robust design.

	3.4	32	4, 5	MWH are in a conflict with regarding the South American projects given the outstanding claims. MWH were detailed design engineer contracted to Astaldi on the Chacayes Project and Hatch was the Owners Engineer. This Project won Hydro Project of the year in 2012 and also environmental awards. All specific comments to Astaldi and extra vigilance are not within IE mandate; commentary regarding appropriate Project management oversight of key contractors based on the level of actual or perceived risk is appropriate.
	3.8	39, 40	6	Given MWH conflict with Astaldi, indication of the unsatisfactory relationship should be removed. The following is appropriate - "MWH recommends that all major contracts are managed appropriately based on actual and perceived risks during execution."
	4.1.1	41	2	This paragraph is redundant. We have adjusted the organizational model, which MWH endorses.
	4.1.1	44	Last	Correction: Nalcor is of the opinion that the existing EPCM contract still applies and requires minimal changes which are under consideration.
	4.1.7	51	1	Commentary regarding SNC-Lavalin legal issues are out of scope.
	Table 4-7	71, 77, 79	3, 4, 16, 17, 18, 19	The P6-type schedule is a deliverable of Project contractors and will be input into the existing schedule framework.
	Table 4-8	85	16,17,18	The P6-type schedule is a deliverable of Project contractors and will be input into the existing schedule framework.
	Table 4-13	105	16,17,18	The P6-type schedule is a deliverable of Project contractors and will be input into the existing schedule framework.
	5.1.1	125	7	An AACEI Class 3 Estimate reflects between 10% and 40% level of project definition with a range of expected accuracy of low -10% to -20% and high +10% to +30%. Nalcor engineering was approximately 50% at DG3 and therefore the -10% to +10 % accuracy range is more appropriate.
	5.1.1	125	8	The commentary regarding contingency is incorrect. MWH are aware of the uncapped amount of contingent equity committed to by Gov. NL.

	5.1.1	125	9	The comment regarding significant overruns with CH0007 should be removed.
	5.1.13	151	3	The following should be removed as incorrect: 'Nalcor advises that in addition, the wages used in the estimates are slightly lower than used for Western Canada, but because Newfoundland has larger union premiums, it will result in lower take-home compensation for those employed in LCP assignments.'
	5.1.13	151	6	This paragraph should be removed.
	9.2.2	225	3	An AACEI Class 3 Estimate reflects between 10% and 40% level of project definition with a range of expected accuracy of low -10% to -20% and high +10% to +30%. Nalcor engineering was approximately 50% at DG3 and therefore the -10% to +10 % accuracy range is more appropriate.
	9.2.2	225	9	Given the -10% to +10% estimate accuracy range this expected outcome range should be amended to be \$5.6B to \$6.8B
	10.1.9	240	1	An AACEI Class 3 Estimate reflects between 10% and 40% level of project definition with a range of expected accuracy of low -10% to -20% and high +10% to +30%. Nalcor engineering was approximately 50% at DG3 and therefore the -10% to +10 % accuracy range is more appropriate.
	10.1.10	241	2	Agreement LC-PM-082 applies here and states that MWH shall: 1. 'Review the project schedule and each of the construction schedules and determine whether the adequate provisions have been made for design, equipment procurement, fabrication, shipment and installation, start up, testing and commissioning of the Project. Any unknown or variable elements in the schedule will be identified along with potential risks.' MWH should limit their review to this scope of work. MWH should have sufficient experience to review the schedules provided to determine if Nalcor is planning the work appropriately. The detailed scheduling and CPM is the contractor's responsibility and is clearly identified in the contracts.
	10.2	241	1	Nalcor does not agree.

	10.2	241	4	This is redundant - The monthly construction reports will provide updated cost data.
James Meaney	1.2.1	1		This section should make reference to the fact that the IE relationship was "transferred" to Government of Canada through the IE Reliance Agreement executed by Nalcor, Canada and MWH on June 4, 2013
	1.2.2	2	1	Is commentary about initial difficulties with data exchange relevant?
	2.1	7	1	Is any of this commentary relevant? The facts are a site visit was conducted on Sept 24-26 which is appropriately covered in Section 2.2
	2.2.7	25	1	What does the last sentence refer to? What insufficient data is being referred to?
	3.2.3.1	31	Sentence highlighted in yellow	Is this referring to the fact that Hatch Study Rev2 is still deemed "draft" pending work unrelated to the determination of firm and average production at Muskrat Falls under the HQ dispatch scenarios?
	Table 4-6	63	6	Remarks based on performance security package included in CH0007 RFP. Does not reflect final package of ~ \$250m in letters of credit / bond which would represent ~ 25% of contract value. Supporting information on this was sent by Nalcor to MWH/CBB on Nov 7.
	Table 4-6	67	13	Similar comment as above with respect to CH0007 performance security.
	Table 4-9	87	1	As indicated by Nalcor to MWH/CBB in Oct 9 email, contract PH0014 and PH0016 are still in bid evaluation.
	Tables 4-9 to 4-14	87-118		Comments on contract status, award dates, etc. throughout this section can be updated based on material contracts update document provided to Canada/CBB/MWH/BF via data room on Nov 19.
	Table 5-16	137-140		Agreed by all parties at Nov 5 meeting in St John's that this table would be removed from IE report given commercial sensitivities.

	9	223-238		<p>Data in Capital Cost, IDC and Financial Planning sections need to be updated to reflect (i) \$6.5b capital cost update, (ii) Sources & Uses and Debt Service Coverage data in updated financial models from Nalcor Investment Evaluation. The latter was presented by Nalcor to Blair Franklin on Nov 15 and posted to Intralinks data room Nov 20. Nalcor suggests BF could assist MWH with updating this section given their role as financial advisor to Canada.</p>
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