

From: jamesmeaney@nalcoreenergy.com
To: pharrington@lowerchurchillproject.ca
Cc: edbush@lowerchurchillproject.ca
Subject: Canada Inquiry on IE Report Recommendations
Date: Monday, April 14, 2014 11:35:42 AM
Attachments: [Major Package Status Report Nov 2013 \(Details\).pdf](#)

Hi Paul

I have confirmed that we sent item (f) to MWH in July 2013 and have just resent to Joe and Nik.

In addition to issuance of the Construction Report, I recall at the Torbay Rd meeting we agreed to issue an updated version of George's material contracts summary (attached) which should address item (e) at this stage. Ed, have I got that right....as in the May drawdown mechanics & protocol document sent by Sarah McKinnon from CBB on April 8 they have proposed we deliver this April 21?

Is there anything further we can advise Joe on items (b), (c) and (d) at this point?

Thanks
Jim

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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?

----- Forwarded by James Meaney/NLHydro on 04/14/2014 11:19 AM -----

From: "Krupski, Joseph"
To: "JamesMeaney@nalcoreenergy.com" , "PHarrington@lowerchurchillproject.ca"
Cc: "'Nikolay Argirov' (Nikolay.V.Argirov@mwhglobal.com)" , "Kapoor, Anoop" ,
"amanzer@casselsbrock.com"
Date: 04/10/2014 10:14 AM
Subject: RE: Updates on IE Report Recommendations

Jim, Paul:
Thanks for the update on these items. Some questions:

- a. North Spur: When do you expect that this analysis will be completed and be made available to the IE?
- b. Rock bolts: If you will not be preparing a single plan or document that shows the pattern bolting and spot bolting, please provide the primary source information mentioned in the IE report ("individual blast faces maps and data sheets") to the IE so that the IE can review and confirm that sufficient rock support has been installed.
- c. Trial shop testing: please provide results to the IE once available.

d. Integration of contractor's schedules - Please provide revised versions of the master schedule as it is updated to the IE. When do you anticipate that the schedule revised to reflect the contractor's schedule for contract CH0007 will be ready for the IE's review? Also, has the master schedule been updated to reflect the contractor's schedules for LC-SB-003 and CH0030? These contracts were awarded back in 2012.

e. Class 2 estimate: As you state, this will be prepared once most/all material contracts have been awarded. Which material contracts do you require to be in place to prepare the Class 2 estimate? For all of the material contracts that have not yet been awarded, could you please provide expected award dates for our records?

f. O&M information: I believe Nik is looking into whether he has this information.

Thanks,
Joe

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From: JamesMeaney@nalcenergy.com [mailto:JamesMeaney@nalcenergy.com]
Sent: April-02-14 1:49 PM
To: Nikolay Argirov; Manzer, Alison; Krupski, Joseph
Cc: EdBush@lowerchurchillproject.ca; GBennett@nalcenergy.com;
PHarrington@lowerchurchillproject.ca
Subject: Updates on IE Report Recommendations

Hi Folks
See updates below in red....I think the O&M spreadsheet was sent to MWH a couple of times last fall
Regards
Jim

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----- Forwarded by James Meaney/NLHydro on 04/02/2014 03:16 PM -----

From: Paul Harrington/NLHydro
To: James Meaney/NLHydro@NLHYDRO

Cc: Gilbert Bennett/NLHydro@NLHydro, Peter Madden/NLHydro@NLHYDRO, Ed Bush/NLHydro@NLHYDRO
Date: 04/02/2014 09:20 AM
Subject: Re: Fw: Nalcor meeting on Wednesday

Here is the status---PETER ... pls check into item f) for me and let me know if this has been sent already

- a. North Spur recommendations - pages 9, 175- The analysis is ongoing and not complete - The IE requested the complete analysis. Nalcor will provide this when available
- b. Rock bolt recommendations - page 15-16- Nalcor are not planning to compile the information , this was an IE opinion not shared by Nalcor
- c. Trial shop testing for governors under CH0030 - page 28- Factory Acceptance Tests (FATs) and Site Acceptance Tests (SATs) are planned for the controls
- d. Schedules from various contractors (including CH0030, CH0007, SB003) to be integrated into master schedule and provided to the IE for its review - various places, including page 175. - These schedules are being developed and will be integrated into the Master Schedule when fully accepted by Nalcor
- e. Adjustment of contingency -- pages 85-87- The IE has noted that the DG3 contingency is considered aggressive for a Class 3 estimate, Nalcor is currently working towards a Class 2 estimate with the award of the major contracts, wherein contingency is established at a much tighter band around the forecast to complete value. Nalcor shall review the contingent equity, when Class 2 is achieved later in 2014.
- f. Supporting spreadsheet for Table 6-1 (O&M Annual Charges) - page 103- Nalcor is checking to see if this has been provided previously

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From: James Meaney/NLHydro
To: Gilbert Bennett/NLHydro@NLHydro, Paul Harrington/NLHydro@NLHydro, Ed Bush/NLHydro@NLHYDRO,
Date: 03/31/2014 02:33 PM
Subject: Fw: Nalcor meeting on Wednesday

See below....Ed, just got your note that you may need to go to site on Weds....in light of this request, would it be possible for you to stay in St John's?

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----- Forwarded by James Meaney/NLHydro on 03/31/2014 02:31 PM -----

From: "Manzer, Alison"
 To: Nikolay Argirov , James Meaney
 Date: 03/31/2014 02:27 PM
 Subject: Fw: Nalcor meeting on Wednesday

Please ensure we have time and some preparation re these.
 Sent from my BlackBerry 10 smartphone on the Rogers network.

From: Krupski, Joseph
 Sent: Monday, March 31, 2014 12:55 PM
 To: Manzer, Alison
 Cc: Boudreau, Anne: IC; Lazarus, Rhonda (Rhonda.Lazarus@justice.gc.ca); Kapoor, Anoop
 Subject: Nalcor meeting on Wednesday

Hi Alison -

Would like to add an item to the agenda for our meeting with Jim and Nik on Wednesday. We need to understand the process for updating the final forecast cost and the contingency over time. We are seeing contract costs going up (e.g. \$40 million for the accommodations complex), but this is not showing up in a change to the final forecast cost (presumably because it is eating up contingency, or some other costs are decreasing). I think there needs to be a periodic, scheduled cost review like the one that was done in November that resulted in the update of the cost from the DG3 figure of 6.202 billion to the Financial Close figure of \$6.532 billion. The fact that the construction reports say that the FFC has not changed implies that a rigorous cost review like the one done in November is being done on a monthly basis, but I am sure this is not the case.

Also, I have gone through the Nov 29th IE report and identified a number of items where IE made recommendations or requests, as per item 5 of the IE Matters agenda. I would like to hear from Nalcor as to where things stand with these recommendations/requests. Here they are:

- a. North Spur recommendations - pages 9, 175
- b. Rock bolt recommendations - page 15-16
- c. Trial shop testing for governors under CH0030 - page 28
- d. Schedules from various contractors (including CH0030, CH0007, SB003) to be integrated into master schedule and provided to the IE for its review - various places, including page 175
- e. Adjustment of contingency -- pages 85-87
- f. Supporting spreadsheet for Table 6-1 (O&M Annual Charges) - page 103

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MATERIAL CONTRACTS COST SUMMARY

19-Nov-2013

#	Package #	Package Title	Actual Award Date	Expected Award Date	Procurement Status	Estimated Substantial Completion Date	A		B		C = A + B		D		E		F = E - C - D ⁽¹⁾		Transfer Details
							DG3 Base Estimate	DG3 Escalation Allowance	Original Control Budget	Transfer To/From other contracts	Final Forecast Cost (FFC)	Variance							
1	CH0007	Construction of Intakes & Powerhouse, Spillway and Transition Dams	24-Sep-2013		LNTP Signed	2017	\$ 687,994,112	\$ 63,993,604	\$ 751,987,716	\$ (6,969,480)	\$ 1,024,292,550	\$ 279,274,314							* Transfer of 8,1 M from SH0021 for snow clearing and road maintenance * Transfer of 6,1 M from CH0009 for south transition dam structure * Transfer of 9,8 M to CH0032 for secondary concrete of intake and PH * Transfer of 9,2 M to CH0009 for cofferdams scope transfer * Transfer of 10,1 M from CH0031 for electro-mechanical embedments * Transfer of 12,2 M to SM0709 for air transportation
2	CD0501	Supply and Install of Converters and Cable Transition Compounds		20-Dec-2013	Bids in - Evaluation Continues	Q2 2017	\$ 401,654,399												* Transfer of from CD502 for per diem * Transfer of to CD0503 for 30,000 M3 of granular fill 300mm * Transfer of from CD502 for ac breakers for MF and SP * Transfer of to SM0709 for Air transportation * Transfer of from CD502 for the supply of ac breakers for MF and SP * Transfer of from SM0705 for Lab services of the LTA and LITL
3	CT0327	Construction of 350 kV HVdc Transmission Line - Section 1 (MF to SOBI to Deer Lake 610 km)		Q2 2014	RFP being developed (with CT0346 scope included)	Q1 2017	\$ 358,988,474	\$ 33,741,052	\$ 392,729,526	\$ 90,297,291	\$ 492,176,817	\$ 9,150,000							* Transfer of 97 M for merging CT0343 to CT0327 * Transfer of 3,6 M to CT0354/CT0355 for Marshalling yard * Transfer of 4.4 M to SM0709 for Air transportation * Transfer of 1.4 M from SM0705 for Lab services of LITL
4	CT0319	Construction of 315 kV Hvac Transmission Line (MF to CF)		Q4 2013	Bids in - Evaluation Continues	Q3 2016	\$ 188,116,443	\$ 16,311,459	\$ 204,427,902	\$ (1,440,850)	\$ 259,084,236	\$ 56,097,184							* Transfer of 2,5 M to CT0354 for Marshalling yard * Transfer of 1.05 M from SM0705 for Lab services of LTA
5	CT0346	Construction of 350 kV HVdc Transmission Line - Section 2 (Central & Eastern NL 470 km)		Q2 2014	RFP being developed (with CT0346 scope included)	Q1 2017	\$ 167,647,168	\$ 19,767,223	\$ 187,414,391	\$ (3,284,413)	\$ 185,579,978	\$ 1,450,000							* Transfer of 2 M to CT0355 for Marshalling yard * Transfer of 2.36 M to SM0709 for Air transportation * Transfer of 1.05 M from SM0705 for Lab services of LITL
6	CH0030	Supply and Install Turbines and Generators	02-Jan-2013		Contract Awarded	2017	\$ 200,000,000												
7	CD0502	Construction of AC Substations and synchronous condensers facilities		31-Mar-2014	RFP closes Nov 27	Q3 2016	\$ 141,056,231												* Transfer of from SM0705 for Lab services of LTA and LITL * Transfer of to CD534 for S/C civil and Mech. Works * Transfer of to CD501/CD503/CD0534 for per diem * Transfer of to CD0503 for 78,000 M3 of granular fill 300mm * Transfer of from PD0537 for dry type tranfos * Transfer of to merge PD0505 to CD0502 as EPC contract * Transfer of to CD501 for ac breakers for MF and SP * Transfer of to CD0534 for installing the auto transformers * Transfer of to SM0709 for Air transportation * Transfer of for the SST scope from PD0537
8	CH0024-001	Construction of Reservoir Clearing - North Bank	25-Apr-2013		Contract Awarded	Q4 2016	\$ 54,045,313	\$ 3,265,312	\$ 57,310,625	\$ 90,551,215	\$ 131,170,400	\$ (16,691,440)							* Transfer of 90,5 M from CH0023 for merging the 2 packages
9	CH0009	Construction of North and South Dams			Exercising options with CH0007 for completion of scope	Q4 2017	\$ 117,166,506												* Transfer of from CH0006 for Spillway D/S cofferdam removal * Transfer of to CH0007 for south transition dam structure * Transfer of from CH0007 for cofferdams scope transfer * Transfer of to SM0709 for air transportation
10	SH0018	Provision of Catering, Housekeeping & Janitorial Services (MF)		29-Nov-2013	Bids in - Evaluation Continues	Q4 2017	\$ 114,800,000	\$ 7,908,010	\$ 122,708,010	\$ (11,932,067)	\$ 136,800,943	\$ 26,025,000							* Transfer of 0,6 M to SM0714 for early works accommodations * Transfer of 11,3 M to SH0054 for temporary site services at MF
11	CH0006-001	Construction of Bulk Excavation Works	06-Nov-2012		Contract Awarded	Q4 2013	\$ 135,471,949	\$ 4,410,934	\$ 139,882,883	\$ 2,880,997	\$ 147,239,655	\$ 4,475,775							* Transfer of 0,6 M for Spillway D/S cofferdam removal to CH0009 * Transfer of 0,8 M for one year of snow clearing from SH0021 * Transfer of 2,4 M for one year of ground transportation from SH0041 * Transfer of 0,3 M as accommodation costs to CH0006
12	CH0002-001	Supply and Install Accommodations Complex Buildings	22-Oct-2012		Contract Awarded	Q1 2014	\$ 65,267,191	\$ 1,628,207	\$ 66,895,398	\$ 15,537,176	\$ 151,826,189	\$ 69,393,615							* Transfer of 1 M for the clinic building to CH0003 * Transfer of 0,3 M as accommodation costs to CH0006 * Transfer of 16,5 M of the utilities budget CH0005
13	CH0032	Supply and Install of Powerhouse Hydro-Mechanical Equipment	31-Oct-2013		LNTP Signed	Q1 2018	\$ 101,525,168												* Transfer of from CH0031 for electrical and mechanical aux works * Transfer of to merge CH0046 with CH0032 * Transfer of to CH0032 for secondary concrete of intake and PH * Transfer of to SM0709 for air transportation
14	LC-SB-003	Submarine Cable Design, Supply and Install	29-Nov-2012		Contract Awarded	Q3 2016	\$ 141,000,000	\$ 6,089,747	\$ 147,089,747		\$ 147,089,747	\$ -							
15	SM0714	Engineering, Procurement and Construction Management (EPCM) Services	01-Feb-2011		Contract Awarded	N/A	\$ 352,005,457	\$ 18,939,735	\$ 370,945,192	\$ 1,600,000	\$ 359,318,706	\$ (13,226,486)							* Transfer of 1 M from SM0710 to S/I IT equipment * Transfer of 0,6 M from SH0018 for early works accommodations
16	PH0014	Supply of Generator Step-up Transformers		29-Nov-2013	Bids in - Evaluation Continues	Q4 2016	\$ 19,464,469	\$ 1,084,547	\$ 20,549,016		\$ 20,547,836	\$ (1,180)							
17	PH0016	Supply of Generator Circuit Breakers		27-Nov-2013	Bids in - Evaluation Continues	Q1 2017	\$ 5,056,000	\$ 114,372	\$ 5,170,372	\$ (125,000)	\$ 5,045,372	\$ -							* Transfer of 0,1 M to PH0015 for the generator surge capacitor
		BALANCE OF SCOPE					\$ 2,241,527,820	\$ 101,749,985	\$ 2,343,277,805	\$ (304,774,737)	\$ 2,044,746,880	\$ 6,243,812							
		CONTINGENCY					\$ 367,852,397		\$ 367,852,397		\$ 182,944,870	\$ (184,907,527)							

TOTAL

\$ 5,860,639,097 \$ 341,853,448 \$ 6,202,492,545 \$ - \$ 6,531,754,580 \$ 329,262,035

COMMENTS: (1) Material Contract variance explanation detail provided as part of overall 06-Nov-2013 project Update Deck, with variance summarized in 3 categories:

1. Design Enhancements to improve reliability
2. Construction Productivity Enhancement Measures
3. Market Conditions