From: jamesmeaney@nalcorenergy.com

Sent: Thursday, November 21, 2013 11:06 PM

To: Auburn Warren; Derrick Sturge

Cc: Xeno Martis; Rob Hull

Subject: Re: Way Forward with IE on Cost and Schedule

I think the point is getting MWH to opine on the reasonableness of the \$6.5b estimate is going to come down to their confidence in the range of forecast accuracy. If we can demonstrate that there's "firm" pricing on 2/3 of the total amount which includes many of the higher risk contracts, and that has yielded only a 5% increase to \$6.5b, the potential exposure for the remaining 1/3 should be lower and therefore the accuracy band narrows. Plus, I don't think any of them are naive enough to think further increases definitely won't happen (and us trying to take that position with MWH likely won't get them to say the approach is reasonable), but given that we're going to agree on their equity pre-funding mechanism, they will have protection and the burden of payment by NL is prorated versus all at once. All this being said, will wait to see if we get agreement on \$6.5b estimate at FC as starting point for cost overruns before testing this....the challenge is obviously time is against us to resolve the IE report.

Sent from my BlackBerry 10 smartphone.

From: Auburn Warren

Sent: Thursday, November 21, 2013 10:32 PM

To: Derrick Sturge; James Meaney

Cc: Xeno Martis; Rob Hull

Subject: Re: Way Forward with IE on Cost and Schedule

Agree with Derrick... don't want to shoot ourselves in the foot on the cost overrun issue bearing in mind how ultra sensitive they are to even a \$1 change....

Auburn

Auburn Warren, CA

Manager, Investment Evaluation

Nalcor Energy

From: Derrick Sturge

Sent: Thursday, November 21, 2013 22:26

To: James Meaney

Cc: Xeno Martis; Auburn Warren; Rob Hull

Subject: Re: Way Forward with IE on Cost and Schedule

Are we suggesting that we talk to Canada about a \$6.6 theoretical number? Certaintly need to be sure that it is not taken out of context.

Derrick Sturge, FCA

Vice-President, Finance & CFO

Nalcor Energy

Sent from my iPad

On Nov 21, 2013, at 10:11 PM, "James Meaney" <JamesMeaney@nalcorenergy.com> wrote:

See note from Harrington at the bottom of this thread, in particular #2. If Canada agreeable to having FC as starting point for measuring cost overruns and they have "protection" with their equity pre-funding mechanism (which we will agree to), it would seem to me this might be a reasonable approach to try and get MWH aligned on schedule and cost. By all means let me know if anyone thinks otherwise.

Sent from my iPad

Begin forwarded message:

From: "James Meaney" <JamesMeaney@nalcorenergy.com>

Date: November 21, 2013 at 8:52:12 PM NST

To: "Paul Harrington" < PHarrington@lowerchurchillproject.ca>

Cc: "Lance Clarke" <LanceClarke@lowerchurchillproject.ca>, "Gilbert

Bennett" <GBennett@nalcorenergy.com>, "Ed Bush"

<EdBush@lowerchurchillproject.ca>

Subject: Re: Way Forward - Cost and Schedule

That was the one thought that crossed my mind as well....let me mull this over and perhaps have a chat with Xeno in the morning, as he had an "offline" chat with her this evening on trying to get a mutually acceptable resolution on the cost overrun pre-funding issue. Thanks

Sent from my BlackBerry 10 smartphone.

From: Paul Harrington

Sent: Thursday, November 21, 2013 8:45 PM

To: James Meaney

Cc: Lance Clarke; Gilbert Bennett; Ed Bush

Subject: Re: Way Forward - Cost and Schedule

For me the only risk to sharing this with Alison is the potential slightly higher number than the \$6.531b number ...if we all feel comfortable with that as a potential outside number for MWH to deal with them we are ok

Paul

Sent from my iPad

On Nov 21, 2013, at 7:16 PM, "James Meaney" < <u>JamesMeaney@nalcorenergy.com</u>> wrote:

Hi Paul

Seems like a logical approach to me to try and bring these issues to ground in a short time frame. Do you have any concerns with me sharing this note with Alison to ensure alignment?

Thanks

Jim

Sent from my BlackBerry 10 smartphone.

From: Paul Harrington

Sent: Thursday, November 21, 2013 5:51 PM

To: James Meaney

Cc: Lance Clarke; Gilbert Bennett; Ed Bush

Subject: Way Forward - Cost and Schedule

Jim

Here are my thoughts that perhaps you can run passed CCB and BF to see if we are aligned......

The cost and schedule experts will get lost in the minutae and will not be able to agree so we have to raise the discussion and this is what I propose:

1. Schedule - I have asked Ed Bush to work with Tom Chudy to develop a Critical Path overview which should allow MWH to make a determination on the reasonableness of the sequence, duration and interdependencies of the main works - LTA and LIL can be discounted from the

discussion because they have months of float - the Critical Path for this Project has always been MF. The high level CP for Muskrat Falls will show the main contracts, Bulk Excavation, Main civil, Dams and North Spur with the tie ins for the key supply and install contracts of Gates, TG sets and Balance of Plant. We can include the proposed Astaldi high level schedule that we have with the LD dates and shoe River Diversion as the main pivot point. MWH have a lot of experience and should be able to assess this level of schedule as being reasonable stating their assumptions in arriving at that opinion.

2. Cost - We know we have approx 2/3rds of the total Project estimate firmed up as completed contracts, delivered Po's or firm priced executed contracts or LNTP's. The net effect of this is a cost increase of ~5% which results in the \$6.531B - so there is \$2.2B left to firm up with contracts and PO's - the cost to complete as far as we know today is \$6.531B and we believe that the greatest budget hits are already behind us and even if in the worst case the 5% increase in cap cost we have seen continues to be experienced for the next \$2.2B (which we do not expect at this time) the \$6.531 would not exceed \$6.641. So we are now out of the realm of estimating theory and into the world of fixed and firm contract and PO costs. So MWH can be assessing actual fixed and firm costs that we have and then focus on the costs we have yet to firm up and again using their experience look at the cost situation and pass an opinion on the reasonableness of our revised budget of \$6.531B

If we take this simplified but practical approach to what we are looking for from MWH's test of reasonableness we should be able to satisfy the stated requirement and allow MWH to comment on the reasonableness of the LCP Cost and Schedule

Paul Harrington

Project Director

PROJECT DELIVERY TEAM

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