From: darrendebourke@lowerchurchillproject.ca

To: jasonkean@lowerchurchillproject.ca

Cc: Paul Harrington
Subject: Re: Alstom

Date: Wednesday, July 16, 2014 8:28:55 AM

Thanks Jason - it is a very good point and we have it addressed in latest round of discussions. See below correspondence (Section under synergies) issued to Alstom yesterday - follow-up discussion this morning:

11

Gentlemen,

Given the importance to our respective organizations of the successful execution of the three work packages under discussion, our management identified and communicated to your management four potential areas of opportunity. Our management is looking at these packages from a global perspective -notwithstanding two arms of your company would be involved- right people and processes, synergies and integrated teams working for the collective good of all concerned. We have concluded from our discussions this morning that our expectations may not have been well understood.

The purpose of this e-mail is to clarify our requirements to facilitate further discussion on a follow-up call.

Commissioning

Commitment from Alstom (Grid + Power) that we will get a highly qualified and experienced Mechanical Completion (MC) & Commissioning Team and use of a Nalcor specified or approved Computerized Completions System. Agreement by Alstom to provide the MC and Commissioning documentation, processes and procedures to a standard equivalent to Canadian offshore Oil and Gas and/or NORSOK.

A-Team including Senior Executive in St. John's

On-going commitment from Alstom to provide the best resources available within the Alstom organization to support and facilitate the successful execution of the project. This would include bringing additional key resources if the need is identified. Additionally, your respective organizations will work in a proactive and positive manner to address interface issues between the packages. We would expect this would include the potential of sharing resources from time to time.

We had expressed a desire for a local single point of contact to address issues beyond the normal day to day project issues. Based on the feedback this morning, we are willing to accept the suggestion of a commitment to establish a "steering committee" with one or two senior representatives from each line of business and representation from the company. This committee would meet on an as required basis as established by the needs of the project. This would align with your concept of two project managers.

Local office

In order to ensure the integration of the work, could you confirm that your two teams will be housed in the same office space in St. John's.

Synergies

There are two aspects to the synergies issue; the first is the opportunity to reduce costs for the collective good of both parties, and the other is the economies of multiple work packages. The second issue will be addressed separately.

One of the synergies that was not raised during the conversation this morning is the opportunity for an overall integrated system (electricity grid) commissioning. We are now in a unique position in that we have the potential for one company, Alstom, to take on the responsibility for overall grid commissioning. Instead of individual contractors ensuring that each of the converters / transition compounds, switchyards, and synchronous condensers packages are commissioned in relative isolation from one another, Alstom , if awarded all 3 contracts, could assume a unified, system-wide, approach to commissioning overall. Alstom would ensure the packages are commissioned in accordance with the package specifications, but also assume overall responsibility to ensure the converters / transition compounds, switchyards, and synchronous condensers packages all work together as a single system and that the system integrates seamlessly into the Province's electricity system.

Further to the above, the converter team has been proactive in responding to issues raised by the project team. This focus continues for the benefit of the project. We need to leverage this approach across the packages. We are seeking a commitment from your organization that you will leverage spend across the packages and not operate as silo organizations. This includes confirmation that Alstom is willing to consider alternate contracting approaches for the civil work at Solders Pond. "

Darren DeBourke, P.Eng.
Project Manager - HVdc Specialties
PROJECT DELIVERY TEAM
Lower Churchill Project

- t. **709 570-5970** c. **709-746-9837**
- e. DarrenDebourke@lowerchurchillproject.ca
- w. muskratfalls.nalcorenergy.com

Jason Kean---07/16/2014 07:29:39 AM---Paul / Darren, Per our discussion on Monday morning re Alstom, I have been thinking of the need for

From: Jason Kean/NLHydro

To: Paul Harrington/NLHydro@nlhydro, Darren Debourke/NLHydro@nlhydro,

Date: 07/16/2014 07:29 AM

Subject: Alstom

Paul / Darren,

Per our discussion on Monday morning re Alstom, I have been thinking of the need for integrated commissioning. In short, I suggest that we negotiate with Alstom to provide integrated commissioning services that would include the responsibility for leading the integration of the various components (Switchyard, converter, sc) with the existing grid through to steady state operations. Further similar to what has been done with Valard, we could structure an agreement to include long term ops support, requesting them to establish infrastructure and capacity during project phase to support long term ops. (FYI our ops budget and strategy assumes we use OEMs for support). Anyway, in short I suggest getting what we can from Alstom in this phase to help us address this strategic risk.

Jason

Jason R. Kean Deputy General Project Manager Nalcor Energy - Lower Churchill Project Ph. (709) 737-1321 or (709) 727-9129