

From: Molinski, Tom <tsmolinski@hydro.mb.ca>
Sent: Wednesday, August 15, 2012 4:55 PM
To: Danny Northcott <dnorthcott@hvdc.ca>
Cc: Paul Wilson <plwilson@mhi.ca>; Rick Horocholyn <rhoro@hydro.mb.ca>; David Jacobson <dajacobson@hydro.mb.ca>
Subject: RE: Wind Power Costs in NFLD

Hi Danny,

The meeting with Charles, Paul and myself did clarify the expectations about the 800MW wind study case both from a technical and economic perspective. Due to time constraints the report on 800MW of wind will be more qualitative than quantitative. We need to “touch on” the technical issues of 800MW of wind using layman’s terms. I already created a fairly complete list (from my perspective) of the technical issues that I can elaborate on in the report. We discussed many (but not all) of these technical issues at the meeting this morning and Charles was Ok with it. Dave Jacobson’s summary will also be used here. We have to “create” an economic evaluation for the 800MW wind case. I have an idea on how to approach the economics and already discussed this with Rick Horocholyn (who happened to show up at the end of our meeting) and it will be better than a “back of the envelope” study but not an exhaustive costing analysis. We will develop our own data for the 800MW wind economics study (this is doable), but we will graciously accept any data that Nalcor can provide. Rick and I will work on this together. Nalcor will provide the economics to the Hatch study (300MW wind development case) and the stability study that they completed on the 300MW wind case. Our due diligence review of the Hatch report (300MW wind case) is still 50% or so of our deliverables. We do not need another meeting at this time, but perhaps mid next week after we receive the promised Nalcor reports noted above.

Cheers,

Tom

Tom Molinski P.Eng.

Manitoba Hydro

Senior Energy Integration Engineer

Customer Engineering Services

360 Portage Ave. (6)

Winnipeg, Manitoba

Canada

R3C 0G8

Ph 204 360 3472

Cell 204 792 2070

From: Danny Northcott [mailto:dnorthcott@hvdc.ca]

Sent: Wednesday, August 15, 2012 3:34 PM

To: Molinski, Tom

Cc: Wilson, Paul (MHI)

Subject: Re: Wind Power Costs in NFLD

Hi Tom,

Did we learn any more about their expectations during this meeting?

Do you know specifically what to write about for your technical portion?

It sounds like there is a renewed focus on economics but no data yet to use. Is that a fair statement?

Do we need a meeting to discuss layout structure at this point or is everything ok for now?

Danny

Danny Northcott, MSc EE, P.Eng

Power System Simulation & Project Engineer

Manitoba HVDC Research Centre
a Division of Manitoba Hydro International

(204) 989-1248
www.hvdc.ca

From: "Molinski, Tom"

Date: Wed, 15 Aug 2012 17:45:54 +0000

To: Wilson, Paul (MHI); Horocholyn, Rick

Cc: Jacobson, David; 'Danny Northcott'

Subject: Wind Power Costs in NFLD

Hi Paul,

It would good if we could obtain the installed costs of the two existing wind farms in Newfoundland. This would give us a datum point of installed wind cost in 2009 and help with our predictions of the hypothetical future wind cost for 800MW. Would Charles or Nalcor have access to these existing costs? Rick agreed to assist us on the financial and economics evaluation of the 800MW of wind and associated elements (which is great).

Thanks,

Tom