From:	torielly@nalcorenergy.com
To:	auburnwarren@nalcorenergy.com
Cc:	gordonalexander@nlh.nl.ca
Subject:	Re: MF COD - Impact of Delay on Fuel Costs
Date:	Monday, October 7, 2013 8:52:57 PM
Attachments:	Prelim Assessment 13.10.07 IE Mods Evening.pptx

Patrick indicated that there is a problem with your graphs. I have excluded the XNPVs form this deck.

Let us know if there's anything else needed.

Thanks, Terry

Terence O'Rielly Manager, Economic Analysis Investment Evaluation Nalcor Energy c. 709 693 8030 t. 709 737 1290 e. torielly@nalcorenergy.com w. nalcorenergy.com

From: Auburn Warren/NLHydro To: Terry O'Rielly/NLHydro Cc: Gordon Alexander/NLHydro Date: 10/07/2013 08:39 PM Subject: Re: MF COD - Impact of Delay on Fuel Costs

Perfect... Get home now... We can pick up tomorrow.

Thanks for all the hard work

Auburn

Auburn Warren, CA Manager, Investment Evaluation Nalcor Energy tel: 709.737.1256 mob: 709.725.1141

On Oct 7, 2013, at 8:38 PM, "Terry O'Rielly" wrote:

Shirley is going away tomorrow so I'm kicking Gordo out before 9 if that's ok. Are you coming in tonight? Do you need anything else?

Here's the state of the modeling nation...

Patrick is currently updating the XNPVs for LIL in the file with the graphs. Gord has started the DG3 analysis. Susan is vetting through the tables we reviewed quickly before you left.

Here is the impact of the delay in COD's on Holyrood fuel. \$295M nominal \$206M NPV Dec. 31, 2012 \$220M NPV Dec. 31, 2013

(See attached file: Delay in LC COD.pdf)(See attached file: Delay in LC COD IE.xlsx)

Thanks, Terry

<0.ECC.jpg> Terence O'Rielly Manager, Economic Analysis Investment Evaluation Nalcor Energy c. 709 693 8030 t. 709 737 1290 e. torielly@nalcorenergy.com w. nalcorenergy.com

----- Forwarded by Terry O'Rielly/NLHydro on 10/07/2013 08:26 PM -----

From: Kevin Goulding/NLHydro To: Terry O'Rielly/NLHydro@NLHydro Cc: Bob Moulton/NLHydro@NLHydro, Rob Henderson/NLHydro@NLHydro Date: 10/07/2013 03:23 PM Subject: MF COD - Impact of Delay on Fuel Costs

Terry,

This is what I have come up with so far (could you let me know if this is what you had in mind). I have asked Bob Moulton to try and round up the monthly load forecasts used for DG3 to confirm/ensure that things are consistent. In the end this may only change things slightly for 2018 if the load for January/February is not materially different from the 2010 OPLF forecast that I used.

Here are the assumptions:

The fuel costs and fuel conversion rates are as per the file that you sent. There is an improvement in fuel conversion rate as the overall output from HRD increases but I have not tried to quantify this for this exercise.

For 2017 I have taken the infeed energy (less what was scheduled for reservoir replenishment) and swung it over to HRD.

For 2018 I have taken the monthly load forecast that I have and, for January and February, assumed the normal distribution for NLH hydro and NUGs. The difference is assumed to go on Holyrood. In March there would be one unit required on to cover the N-1 (large of largest unit scenario) - 63 GWh at \$12 M for this requirement. This assumes that the balance of the recall (less Labrador internal use) is available for at least the first two months following interconnection on a firm basis. If not there would be additional HRD minimum requirements required. It also assumes that there is only one MF unit on-line for the first two months.

I will fine tune things once I get the forecasts from Bob - if you think it is worth it?

Regards,

Kevin

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Kevin Goulding, P. Eng. Supervisor - System Operations Engineering System Operations and Planning Newfoundland and Labrador Hydro - a Nalcor Energy company t. 709 737-1409 c. 709 682-8196 f. 709 737-1318 e. KevinGoulding@nlh.nl.ca w. www.nlh.nl.ca

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?

BHA Assumptions

Bidder	Scenario	Source	Change relative to Submission	Effectiv e rate MF	Effective rate LIL	Comments
TD-	Proposal	Submissio n	No change			
Goldman Sachs	GoC + Proposed Spread	Bloomber g	Interpolated GoC to BHA			
540115	GoC + No Spread	+ 2013 average life				
	Proposal	Submissio n	No change			
RBC- Scotia	GoC + Proposed Spread	Bloomber g Sep 30, 2013	Interpolated GoC to BHA			
	GoC + No Spread		average life			
	Proposal	Bloomber	Interpolated GoC to BHA			
CIBC- BMO	GoC + Proposed Spread	g Sep 30,				
	GoC + No Spread	2013	average life			



BSF Assumptions

Bidder	Scenario	Source	Change relative to Submission	Effective rate MF	Effective rate LIL	MF Comments
	Proposal	Submission	No change			
TD-Goldman Sachs	GoC + Proposed Spread	Bloomberg	Interpolated GoC to BSF			
	GoC + No Spread	Sep 30, 2013	average life			
RBC-Scotia	No BSF proposed.					
	Proposal		Interpolated GoC to BSF average life			
CIBC-BMO	GoC + Proposed Spread	Bloomberg Sep 30, 2013				
	GoC + No Spread	2013				



Page 5

NPV Results – Benchmark Proposals (in millions CAD)

		Propo	sal	GoC + Prop	osed Spread	GoC + No Spread		
Bidder		NPV	Difference to Lowest	NPV	Difference to Lowest	NPV	Difference to Lowest	
A	TD-Goldman Sachs							
MF/LTA	RBC-Scotia							
Σ	CIBC-BMO							
	TD-Goldman Sachs							
E	RBC-Scotia							
	CIBC-BMO							
	TD-Goldman Sachs							
Total	RBC-Scotia						_	
	CIBC-BMO							

Results may vary because of rounding

⁽¹⁾ For illustrative purposes as CIBC-BMO as CIBC-BMO did not provide committed deposit rates (BHA and BSF)



Financing Structure – Debt-to-Equity (in millions CAD)

		Proposal		GoC + Proposed Spread		GoC + No Spread	
Bidder		Debt (DER)	Equity	Debt (DER)	Equity	Debt (DER)	Equity
	TD-Goldman Sachs	2,580 (65.00%)	1,397	2,600 (64.05%)	1,459	2,600 (63.77%)	1,477
MF/LTA	RBC-Scotia	2,600 (63.62%)	1,487	2,600 (63.36%)	1,503	2,600 (63.21%)	1,513
2	CIBC-BMO ⁽¹⁾	2,600 (63.63%)	1,486	2,600 (63.63%)	1,486	2,600 (63.63%)	1,486
רור	TD-Goldman Sachs	2,343 (75.00%)	781	2,400 (74.60%)	817	2,400 (74.10%)	838
	RBC-Scotia	2,400 (73.90%)	847	2,400 (73.5%)	865	2,400 (73.20%)	878
	CIBC-BMO ⁽¹⁾	2,400 (74.25%)	831	2,400 (74.25%)	831	2,400 (74.25%)	831

All scenarios except TD-Goldman Sachs Proposal use full debt cap

⁽¹⁾ For illustrative purposes as CIBC-BMO as CIBC-BMO did not provide committed deposit rates (BHA and BSF)



Page 7