

From: brian crawley@ [REDACTED]
Sent: Sunday, July 15, 2012 7:18 PM
To: pharrington@ [REDACTED]
Subject: Re: Fwd: opinion draft - PLEASE CONFIRM RECEIPT

Paul - this is excellent - very comprehensive. It covers everything we discussed and more, balancing plain english with the proper level of technical input. I don't have anything to add. Brian
Sent wirelessly from my BlackBerry device on the Bell network.
Envoyé sans fil par mon terminal mobile BlackBerry sur le réseau de Bell.

From: pharrington@ [REDACTED]
Date: Sun, 15 Jul 2012 17:16:45 -0230
To: Brian Crawley Home<brian crawley@ [REDACTED]>
Subject: Fwd: opinion draft - PLEASE CONFIRM RECEIPT

Paul Harrington

Begin forwarded message:

From: [REDACTED] Paul Harrington" <[harrington@\[REDACTED\]](mailto:harrington@[REDACTED])>
Date: 15 July, 2012 5:10:51 PM NDT
To: <r_westney@westney.com>
Cc: <[pharrington@\[REDACTED\]](mailto:pharrington@[REDACTED])>
Subject: Fw: opinion draft - PLEASE CONFIRM RECEIPT

Dick thanks for this, could you pass this onto Jack
Could you weave in a sentence or two regarding the DG2 decision and the use of the PIRA reference forecast. DG2 being a choice of two options and concept selection with limited project definition(engineering completed less than 10%) and nalcor chose the reference forecast to provide a conservative analysis result. You may even quote the MHI report which stated that the fuel price used by Nalcor at DG 2 resulted in understating the isolated island fuel costs. MHI also stated that the expected price is calculated as the weighted average price forecast of the reference, low and high cases. The expected price forecast encompasses the uncertainties associated with the other three scenarios into one. It would be very helpful if you could elaborate on this point and explain it for the reader It would also be helpful if Westney could provide some further comment on the MHI statements possibly agreeing with or further supporting their view and possibly add that notwithstanding theNalcor decision to take a conservative view on fuel prices at DG2 and perhaps one that Westney would not recommend, it is certainly not appropriate or prudent to use the reference case for such a critical decision as DG3 or ProjectSanction. Potential reasons being that Nalcor has advanced the project definition to over 40%, with quantities and overall costs much better defined. This greater definition of Project demands that more accurate forecasts are utilized when available, a case in point being the Expected forecast versus the reference case. then introduce the Risk strategy

Nalcor uses a recommended Risk Strategy and other inputs to the CPW analysis, such as capital cost contingency is established as a 50 forecast based on probabilistic risk analysis, the fuel price forecast which represents the full range of fuel price outcomes rather than one scenario.
A few other points

- Could you explain to the readers what “mode of a probability distribution “ means – if you could add a few graphs to explain this and also explain “distribution of possible outcomes is asymmetrical”
- Could you explain further the “mean of a probability distribution” with graph perhaps
- I also would like to see if a different word than optimistic could be used in “Observations” first sentence , perhaps "more risk balanced " may work.
- We have produced a graph which may support the last sentence regarding use of Expected forecasts – we have plotted the readily available Government forecasts and they tend to track the Expected Forecast – that might be a good reference to use- I will have that sent to you

I believe Brian may have some thoughts also that he will send to you

I hope to phone you morning your time, around noon in NL – are you/Jack available? pls advise

Regards Paul

Paul Harrington

On 2012-07-13, at 5:41 PM, Richard Westney <> wrote:

Paul

Attached please find the draft of our opinion letter. As we discussed, this is a “level 1” approach, carefully written to be understandable by a broad audience yet also precise in its vocabulary and message.

As you probably know, Jack was able to get some additional information about the PIRA analyses which was helpful, and we feel we have enough to support the statements in the letter.

Jack and I both enjoyed this exercise and appreciate the opportunity to support you on this issue.

As noted, this is intended to be a draft, we welcome your comments.

PLEASE NOTE: our server will be down all day on Monday 7/16, for an important upgrade. Therefore please note my personal email address (netzero) above. As part of the upgrade is a new phone system, it is also best to use my cell phone: 713-962-1410 until Tues.

D

Richard Westney

Founder/Director

Westney Consulting Group

www.westney.com

713-861-0800

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