

Date : 10/26/2012 4:59:47 PM

From : "Bown, Charles W."

To : "Foote, Wes"

Subject : Fw: Front Section

From: Edward Kallio [mailto:edward.kallio@ziffenergy.com]

Sent: Friday, October 26, 2012 03:44 PM

To: Bown, Charles W.

Subject: RE: Front Section

Agreed, Cam and I had the same discussion just a bit earlier.

We're working on other sections to incorporate Jim's numbers, and we also need to put back in the gulf lng fc cost breakdown to the back of the report, and strengthen the caveats on gulf lng as well

Here is summary section:

EXECUTIVE SUMMARY

This Report examines the availability and feasibility of natural gas as a feedstock for power generation on the Island of Newfoundland (the Island) at Holyrood. The Report has been commissioned in the context of an aging oil-fired power plant at Holyrood, and plans to develop a new hydro-electric power project at Muskrat Falls, Labrador. Natural gas considered in this Report would originate either from the Grand Banks or world-sourced Liquefied Natural Gas (LNG). Grand Banks gas would be delivered to the Island via offshore pipeline. World-sourced LNG would be transported to the Island via specialized tanker and converted to natural gas at a Regasification (Regas) facility located on the Island before transport to Holyrood via pipeline.

Grand Banks pipeline supplied natural gas is not a viable replacement for the current oil-fired Holyrood electric generation facility. While natural gas is physically available offshore Newfoundland and Labrador, it is not available on commercially viable terms for power generation. Current surplus gas production is either injected for use in oil recovery, or stored for later use in oil recovery or future monetization. Oil and gas companies have evaluated natural gas monetization opportunities and have yet to identify an economic project. The power generation demand on the Island is so small that any investment in offshore infrastructure (facilities, wells, and pipeline) plus associated operating costs cannot produce the return(s) on capital required for oil and gas companies.

Notwithstanding any future policy objective to develop Grand Banks natural gas, the Government of Newfoundland and Labrador cannot compel Operators to produce and sell gas to the Island power generation market, nor can it mandate a price that the Operator(s) must accept for their gas. The Government of Newfoundland and Labrador has no legislative authority to order a non-economic development of offshore natural gas.

LNG supplied natural gas for power generation is not a viable alternative to the current oil-fired Holyrood generation of electricity. In order to address utility supply risks, LNG should be sourced under long term contracts which are predominantly oil-indexed. Oil-indexation suggests long term pricing at approximately 80 to 90% of World Oil Prices (Brent). Despite the abundance of shale gas in North America, oil indexation for LNG will be a sustaining commercial model going forward. The low and variable volumes of gas required to produce power at Holyrood are an economic barrier to securing long-term firm LNG Supply. The required investment in Regas and storage infrastructure, when amortized over such low and variable volumes, renders LNG as an Island power generation option uneconomic. Full cycle LNG supply costs will likely be similar, or in excess of, the current oil-fired power generation at Holyrood.

From: Bown, Charles W. [mailto:cbown@gov.nl.ca]

Sent: October 26, 2012 11:43 AM

To: Edward Kallio

Subject: RE: Front Section

Ed;

I'd like to keep that section in ; its important to those who have proposed this option to see that we have done the analysis and to understand the rationale why its not reasonable.

In terms of the new Exec Summary, is like to see the following though train..

1. Gas is not commercially available
2. Govt cant force gas development
3. Even if it were available it would be too expensive.

Charles

From: Edward Kallio [mailto:edward.kallio@ziffenergy.com]

Sent: Friday, October 26, 2012 12:13 PM

To: Bown, Charles W.

Subject: RE: Front Section

Charles, revisions have been incorporated. Have you given thought to dropping the NA Gas Price Influences sections from the LNG section? Those are the pages with the natural gas pricing pendulum, covering two different time horizons. I think it's best not to put a focus on NA prices if we agree that world-sourced LNG will be most likely. Still waiting on Jim et al for some numbers,

Ed.

From: Bown, Charles W. [<mailto:cbown@gov.nl.ca>]
Sent: October 26, 2012 1:52 AM
To: Edward Kallio
Cc: Foote, Wes
Subject: Re: Front Section

Can you drop the introduction heading and call this section simply exec summary?

Can the first sentence in para 2 become the first sentence in para 3 and then make para 3 become para 2? It would read as follows...

Para 2

Grand Banks pipeline.... While natural gas is physically...

Para 3 (you can structure the lead in; I'd suggest...)

Its also important to note that , even if developing natural gas was a policy objective of NL, the govt NL cannot compel...

Can the lead-in on #9-10 be combined? They read the same. I'd also like to drop #12; its less factual and more sensational than the rest.

From: Edward Kallio [<mailto:edward.kallio@ziffenergy.com>]
Sent: Thursday, October 25, 2012 06:50 PM
To: Bown, Charles W.
Subject: Front Section

Charles, attached is the front section, still needs a bit of editing as I've just conducted some surgery, but a pretty good cut at it.

I also think it would be a good idea to take out the section on NA gas price influences etc., which we used to justify Gulf Coast LNG. We're now agreed that world sourced LNG is the most realistic case, so having these sections in the LNG part of the doc could be misleading. I will make sure to footnote and indicate that we've considered USGC LNG but it is not likely to be available under similar t's and c's,

Ed.

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