

Date : 10/7/2010 5:09:28 PM
From : "Newhook, Vanessa"
To : "Thompson, Robert"
Subject : FW: Data Access
Robert,

To update you, Gerard and Paul have not yet received the information and will follow up tomorrow morning. I will let you know but obviously time is passing...

Vanessa

Vanessa Newhook
ADM, Royalties and Benefits
Department of Natural Resources
Government of Newfoundland and Labrador
t 709.729.1644

From: Collins, Gerard
Sent: October 6, 2010 5:18 PM
To: Thompson, Robert; Parsons, Paul O; Newhook, Vanessa
Cc: Bown, Charles W.
Subject: RE: Data Access

Hi Robert

I just got a call from Rob Hull at Nalcor and we briefly discussed the information request and analysis we intend to complete. On your timeline of one week, Rob has informed me that he and his colleague Paul Humphries will not be able to meet with Paul & I until Tuesday October 12/10.

On Oct 12/10 they/Nalcor intend to share two detailed presentation decks. I asked Rob if he could forward the decks before Oct 12/10 and he informed he will discuss internal approval and let me know tomorrow. I did communicate that we have reviewed 5 slides from a Nalcor presentation, compiled an information request that would enable us to better understand the pertinent cases and analysis and would forward our information request for his review.

Once Rob reviews our information request he will be in a position to gauge if their presentation decks will suffice our needs. I will forward the information request to Nalcor before I leave today.

Please advise if you have any questions or concerns.

Thanks,
Gerard

From: Thompson, Robert
Sent: October 6, 2010 1:57 PM
To: Parsons, Paul O; Newhook, Vanessa
Cc: Collins, Gerard; Bown, Charles W.
Subject: RE: Data Access

OK. Just sent a reminder to Derrick.

From: Parsons, Paul O
Sent: Wednesday, October 06, 2010 1:53 PM
To: Thompson, Robert; Newhook, Vanessa
Cc: Collins, Gerard; Bown, Charles W.
Subject: RE: Data Access

Hello Robert, Vanessa & Charles,

Below and attached is revised info request/questions focused on Case 1 (Island Isolated) & 2B (MF/Infeed/spill). Please let us know if you have any further questions/comments.

We still haven't heard from Nalcor contacts (Rob & Paul) and ask you whether we should initiate contact with them on this request?

Paul

Information Request / Questions Related to Cases 1 and 2B:

1. For Cases 1 & 2B:
 - a) Please provide more case description including the schedule of new supply and further detail on the cost estimates for new generation and transmission infrastructure. As well, can Nalcor provide information related to potential costs variances for generation and transmission. How recent are the cost estimates for various project in the case scenarios?
 - b) Please provide the applicable load forecast with assumptions. Also, provide the load forecast table with schedule of new supply and retirements.
 - c) In this analysis, were options to decrease demand through conservation and energy efficiency taken into account (may offset some of the need for new power)? If so, can Nalcor provide more discussion on how this was considered and incorporated into the scenarios?

- d) Please provide more detail on the approach, analysis and calculations (reported on Slides 12-16) including operational data, costs (capital, operating and variable costs including transmission tariffs/costs and fuel costs where applicable), market and financial inputs & parameters, any other input assumptions and all other necessary cash flows, revenue requirements and financial/project analysis in support of the case scenarios results.
 - e) On Slide 13, can Nalcor clarify the output parameter "CPW" (cumulative present worth?) and its calculation? Clarification on the parameter "Bump Value" and its calculation.
 - f) On Slide 13, can Nalcor clarify the units in the output table? Is it million Cdn\$?
 - g) On Slide 13, are these un-leveraged project level NPV results and what investments (both generation & transmission?) have been included in the calculation? What are the project IRRs for these scenarios? Can the IRRs and NPVs be provided for both generation and transmission investments? (related to 1d request above)
 - h) Can Nalcor outline if and how it has incorporated the impact of any federal and/or provincial environmental mitigation strategies in its load forecast, supply and financial analysis?
2. For Case 1:
- a) Have other future Island isolated supply scenario options (offshore natural gas, Island hydro & any others) been considered and analyzed and, if so, can Nalcor provide the inputs, analysis and results for comparison to the case scenarios presented.
 - b) Can Nalcor break out the fuel costs component in the revenue requirement analysis for the isolated island case scenario?
 - c) What are the crude oil price and fuel oil price assumptions? What is the probability associated with this oil price forecast? Is there an alternate(s) including lower oil price scenarios that have been considered and if so, can Nalcor provide the inputs, analysis and results?
 - d) Given the long time horizons, does the oil price/fuel costs outlook contain any leveling off/consideration to account for new generation technologies, reduced consumption, etc. Is there a reasonable improved technology case (with reduced costs and improved efficiencies) that has been (or could be) considered for the Island isolated scenario given the long term horizon of the analysis? If so, can Nalcor provide the inputs, analysis and results?
 - e) In this analysis, were options/technologies to improve dispatchability of intermittent sources taken into account, which if available, may offset some of the need for new power?
 - f) In this analysis, were options to decrease demand through conservation and energy efficiency taken into account (may offset some of the need for new power)? If so, can Nalcor provide more discussion on how this was considered and incorporated into the scenarios?
 - g) Could there be benefit in considering the construction of a Maritime link for purposes of purchasing power (and selling power) to Nova Scotia, but no connection to Labrador.
3. For Case 2B:
- a) Please provide detail regarding the allocation of generation and transmission costs to the NL ratepayer revenue requirements. How are generation & transmission costs recovered?
 - b) Clarify the difference between conventional Island Link and VSC Island Link? When would one be considered appropriate to build and employ over the other option? What are the advantages/disadvantages of each?
 - c) To what extent does the Island Link scenario eliminate/reduce the need for Holyrood (or a similar type facility) on the Island system? To what extent may thermal generation still be a component of Island generation with an Infeed?

From: Thompson, Robert
Sent: October 6, 2010 12:27 PM
To: Parsons, Paul O; Newhook, Vanessa
Cc: Collins, Gerard; Bown, Charles W.
Subject: RE: Data Access

Thanks. The questions look to be comprehensive. However, I don't think you need to interrogate all the cases. Case 1 and one other case (whichever one is the MF/Island Link/spill case) are the only two cases that need to be examined. This allows us to focus directly in on the comparison between lowest cost isolated Island case and the barebones Island Link case.

Robert

From: Parsons, Paul O
Sent: Wednesday, October 06, 2010 11:49 AM
To: Thompson, Robert; Newhook, Vanessa
Cc: Collins, Gerard
Subject: FW: Data Access

Hello again,

In the interest that you may not be able to open email attachments with Blackberries, the info request/questions are copied and pasted below.

Paul

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 -
Information Request / Questions:

4. For Cases 1, 2A, 2B, 3A, 3B, 4A, 4B, 4C:
 - a) Please provide more case description including the schedule of new supply and further detail on the cost estimates for new generation and transmission infrastructure. As well, can Nalcor provide information related to potential costs variances for generation and transmission. How recent are the cost estimates for the case scenarios?
 - b) Please provide the applicable load forecast with assumptions. Also, provide the load forecast table with schedule of new supply and retirements.
 - c) In this analysis, were options to decrease demand through conservation and energy efficiency taken into account (may offset some of the need for new power)? If so, can Nalcor provide more discussion on how this was considered and incorporated into the scenarios?
 - d) Please provide more detail on the approach, analysis and calculations in support of the case scenarios results (reported on Slides 12-

16) including operational data, costs (capital, operating and variable costs including transmission tariffs/costs and fuel costs where applicable), market and financial inputs & parameters, any other input assumptions and all other necessary cash flows, revenue requirements and financial/project analysis in support of the case scenarios results.

- e) On Slide 13, can Nalcor clarify the output parameter "CPW" (cumulative present worth?) and its calculation? Clarification on the parameter "Bump Value" and its calculation. Clarification on the parameter "Cost-out to Langan", its calculation and interpretation.
 - f) On Slide 13, can Nalcor clarify the units in the output table? Is it million Cdn\$?
 - g) On Slide 13, are these unleveraged project level NPV results and what investments (both generation & transmission?) have been included in the calculation? What are the project IRRs for these scenarios? Can the IRRs and NPVs be provided for both generation and transmission investments? (related to 1d request above)
 - h) Can Nalcor outline if and how it has incorporated the impact of any federal and/or provincial environmental mitigation strategies in its load forecast and supply analysis?
5. For Case 1:
- a) Have other future Island isolated supply scenario options (offshore natural gas, Island hydro, any others) been considered and analyzed and, if so, can Nalcor provide the inputs, analysis and results for comparison to the case scenarios presented.
 - b) Can Nalcor break out the fuel costs component in the revenue requirement analysis for the isolated island case scenario?
 - c) What are the crude oil price and fuel oil price assumptions? What is the probability associated with this oil price forecast? Is there an alternate(s) including lower oil price scenarios that have been considered and if so, can Nalcor provide the inputs, analysis and results?
 - d) Given the long time horizons, does the oil price/fuel costs outlook contain any leveling off/consideration to account for new generation technologies, reduced consumption, etc. Is there a reasonable improved technology case (with reduced costs and improved efficiencies) that has been (or could be) considered for the Island isolated scenario given the long term horizon of the analysis? If so, can Nalcor provide the inputs, analysis and results?
 - e) In this analysis, were options/technologies to improve dispatchability of intermittent sources taken into account, which if available, may offset some of the need for new power?
 - f) In this analysis, were options to decrease demand through conservation and energy efficiency taken into account (may offset some of the need for new power)? If so, can Nalcor provide more discussion on how this was considered and incorporated into the scenarios?
 - g) Could there be benefit in considering the construction of a Maritime link for purposes of purchasing power (and selling power) to Nova Scotia, but no connection to Labrador.
 - h) How recent are the cost estimates for the various projects in this isolated island scenario?
6. For Cases 2A, 2B, 3A, 3B, 4A, 4B, 4C:
- a) Please provide detail regarding the allocation of generation and transmission costs between NL ratepayer revenue requirements and export.
 - b) How are transmission costs recovered from various parties utilizing the transmission infrastructure (Infeed, export and shared)? What are the applicable transmission tariffs and how are these applied in each of these cases?
 - c) Clarify the difference between conventional Island Link and VSC Island Link? When would one be considered appropriate to build and employ over the other option? What are the advantages/disadvantages of each?
 - d) To what extent do Island Link scenarios eliminate/reduce the need for Holyrood (or a similar type facility) on the Island system? To what extent may thermal generation still be a component of Island generation with an Infeed?
7. For Case 3:
- a) Please clarify the case description as Slide 12 reports the A & B cases the same as Case 2 although overall the case is described as having "remaining product sold non-firm via HQTE." Maybe a typo. Can Nalcor confirm the case description and that the analysis accurately reflects the appropriate case description?
8. Case 4:
- a) Clarify assumption "Maritime sales made at 15% below avoided cost"? What avoided cost is the basis for this price calculation?
 - b) Please clarify the Island resources built and employed in each of these three scenarios to meet any Island demand beyond Infeed supply?

From: Parsons, Paul O
Sent: October 6, 2010 11:33 AM
To: Thompson, Robert; Newhook, Vanessa
Cc: Collins, Gerard
Subject: RE: Data Access

Hello Robert & Vanessa,

Please see attached for a draft list of info request/questions related to analysis. If you have an opportunity, we would certainly appreciate your review and comments. Robert, we believe we have captured your questions but please let us know as well.

We haven't heard from Rob & Paul yet but anticipate that we could send the list when they are available and discuss.

Thank you and let us know if you wish to discuss.

Paul

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From: Thompson, Robert
Sent: October 5, 2010 4:43 PM
To: Parsons, Paul O; Newhook, Vanessa; Collins, Gerard
Subject: RE: Data Access

When asking questions on what options went into the Isolated Island scenario, pls enquire whether the following were taken into account:

1. options/technology to improve dispatchability of intermittent sources, thereby offsetting the need for new capacity;
2. options to decrease demand through conservation and energy efficiency, thereby offsetting the need for new capacity;
3. building a Maritime link for purposes of purchasing power (and selling power) to Nova Scotia, but no connection to Labrador.

Also ask: a) how recent the cost estimates for the various projects in the isolated island scenario; and b) given the long time horizons, whether the price forecast for oil contains a leveling off to account for new generation technologies, reduced consumption, etc., because a constant escalator to 2041 might be a questionable assumption.

Robert

From: Parsons, Paul O
Sent: Tuesday, October 05, 2010 11:15 AM
To: Thompson, Robert; Newhook, Vanessa; Collins, Gerard
Subject: RE: Data Access

Thank you Robert.
Paul

From: Thompson, Robert
Sent: October 5, 2010 10:57 AM
To: Parsons, Paul O; Newhook, Vanessa; Collins, Gerard
Subject: FW: Data Access

From: DSturge@nalcenergy.com [mailto:DSturge@nalcenergy.com]
Sent: Tuesday, October 05, 2010 10:39 AM
To: Thompson, Robert
Subject: Re: Data Access

Robert; I spoke to Rob Hull. He will look at Paul Humphries schedule and set something up - won't be today though as Paul Humphries is at AEG meetings.

Derrick
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From: "Thompson, Robert" [rthompson@gov.nl.ca]
Sent: 10/05/2010 10:31 AM NDT
To: Derrick Sturge
Subject: Data Access

Derrick

Gerard Collins (gerardcollins@gov.nl.ca) and Paul Parsons (paulparsons@gov.nl.ca) can be reached by Rob Hull and Paul Humphries at the earliest available time to start their analysis. Thanks.

Robert

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