Jan 2016 Cabinet Briefing Deck with an Astaldi focus

This deck was presented to the GNL Premier and Cabinet on the 26 Jan 2016 and focused on the schedule delay caused by the Astaldi performance and the costs for any potential commercial deal with Astaldi.

GNL were informed of the 12 to 18 months delay and a $600M to $800M cost exposure. Nalcor negotiations with Astaldi at that time were at a potential settlement of $250M to $350M.

Following the meeting Nalcor were told to discontinue any further negotiations with Astaldi which resulted in a hiatus of approximately 5 months until the May 2016 briefing with the new CEO and GNL agreed to commence negotiations.

Also included in this section are a series of internal Nalcor emails leading up to the meeting with GNL

Re: Info
Ed Martin
to:
Gilbert Bennett, Paul Harrington, Lance Clarke, James Meaney
01/25/2016 08:48 PM
Hide Details
From: Ed Martin/NLHydro
To: Gilbert Bennett/NLHydro@nlhydro, Paul Harrington/NLHydro@nlhydro, Lance Clarke/NLHydro@nlhydro, James Meaney/NLHydro@nlhydro
Ken Marshall is attending with us tomorrow, by the way - forgot to mention to you today
Ed

Sent from my iPhone

On Jan 25, 2016, at 8:46 PM, Ed Martin <EMartin@nalcorenergy.com> wrote:

> Ken sent me this for reference - just to be prepared:
> http://seekingalpha.com/article/3589576-astaldi-spa-mr-market-wants-you-to-buy-this-italian-construction-company
>
> Sent from my iPhone

Re: Pros and Cons
Ed Martin
to:
Lance Clarke
01/24/2016 08:55 PM
Cc:
Gilbert Bennett, Paul Harrington, "Aidan Meade", James Meaney
Hide Details
From: Ed Martin/NLHydro
To: Lance Clarke/NLHydro@nlhydro
Cc: Gilbert Bennett/NLHydro@nlhydro, Paul Harrington/NLHydro@nlhydro, "Aidan Meade" <aidan.meade@mcinnescooper.com>, James Meaney/NLHydro@nlhydro
Got it. Tks a lot. Looks good
Ed

Sent from my iPhone

On Jan 24, 2016, at 7:21 PM, Lance Clarke <LanceClarke@lowerchurchillproject.ca> wrote:

Had given this some thought before. I believe it's somewhat repetitive with the points already made but can act as a good summary. I know there are others but this hits all of the key points and then some. Many of the points are relative so adjusted wording may be necessary. Provide feedback and I will throw into slides by 8:00ish in the morning.

1. Continue with Astaldi as is, no assistance

Pros
Sticking to our contractual rights
Defers any additional cash outlay by LCP
May eventually bring contractor to the table with a reasonable request

Cons
Increased risk of default and thus associated higher cost exposures of switch out
Slowed progress of the powerhouse likely and subsequently control of project path forward swings toward Astaldi
Later completion date of generation project and therefore increased carrying costs and deferred revenue
Increased risk of a justified claim being created by Astaldi
Increased lack of cooperation from Astaldi opening other risks like interface problems
Absolute increased need to bolster owners team

2. Continue with Astaldi as is, with assistance

Pros
Much decreased likelihood of Astaldi default and associated higher cost exposures of switch out
Maintains our contractual rights with Astaldi- Deal done on our terms
Decreases likelihood of slowed powerhouse progress and control of project path forward remains with Nalcor
Decreases likelihood of completion date beyond 18 months and increasing associated costs
Decreases risk of justified claim creation by Astaldi- focus will be on meeting dates and

collecting funds versus claims
Eliminates any historical claim risk
Better cooperation from contractor lowers probability of new risks
Bolstering of owners team, although necessary, will be less

Cons
Additional cash outlay a given in 2016
Amount inserted will not "stop" risk of claims for future activities
Astaldi may still experience financial issues requiring additional cash input

3. Terminate Contract for Cause (Astaldi would have to become insolvent OR trigger non-performance of the contract – [redacted]

Pros

Possible opportunity to bring in new ideas for completion
Exercised our contractual rights
Chase after Astaldi for costs up to their liability cap

Cons

Higher cost exposures become reality
Definite additional delay in project due to switch out time, meaning extra costs and loss revenue
Risk exposure that new contractor has start up performance issues as well
Loss of efficiencies and team developed over 2015
Weak negotiation position of LCP with new contractor means high likelihood of premium rates
Weak negotiation position of LCP with new contractor means high likelihood of much weaker contract language - Nalcors control of project path forward weakened accordingly
Calling of Bond means Bond company has authority to dictate many aspects of path forward- Nalcor loses control
Short of insolvency, termination likely to result in "wrongful termination lawsuit"
Historical claim almost a given
In case of insolvency, collecting on Parent Guarantee highly unlikely
Collection of bond funds challenging, especially if not for insolvency

Look forward to feedback.

rgds

Sent from my iPad

On Jan 24, 2016, at 4:15 PM, Ed Martin <EMartin@nalcorenergy.com> wrote:

Lance,
I am continuing to prepare the presentation, and would like to a Pros and

Cons for each of the following options;
1. Continue with Astaldi as is, no assistance
2. Continue with Astaldi as is, with assistance
3. Terminate Contract for Cause (Astaldi would have to become insolvent OR trigger non-performance of the contract – [redacted]

Can you put together the pros and cons for me please. It would be helpful as soon as possible. Sometime this evening, if we can.
Tks
Ed

Pros and Cons
Ed Martin to: Lance Clarke, Gilbert Bennett, Paul Harrington 01/24/2016 04:15 PM

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Doc
Ed Martin to: Gilbert Bennett, Paul Harrington, Lance Clarke 01/22/2016 04:46 PM
History: This message has been replied to.

Lance et al
I embedded a summary table in the presentation. I have not shared it yet, but wanted you guys to have a look in case I was asked. Please take a look Everything else the same.
Ed

MF Briefing V2 - January 2016.pptx

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Muskrat Falls Update

January 2016

Boundless Energy

DRAFT CABINET PRESENTATION

nalcor energy
LOWER CHURCHILL PROJECT

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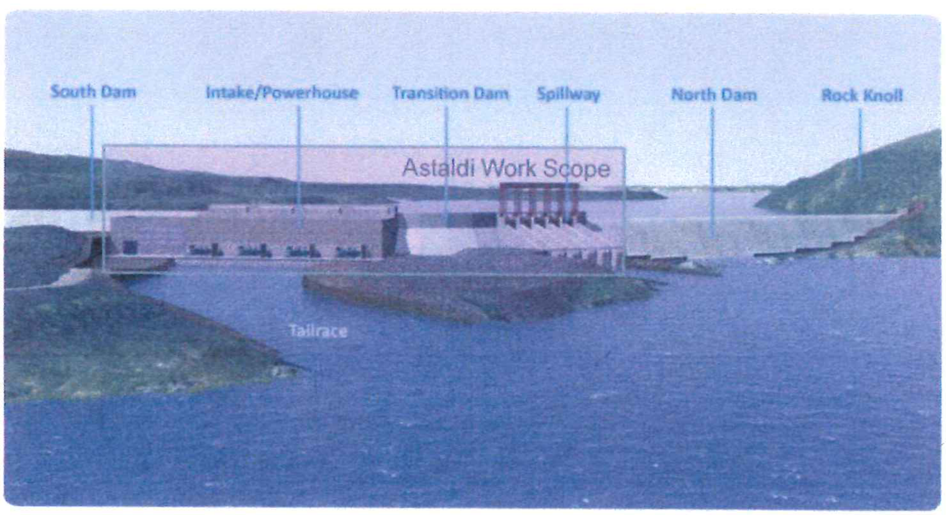
Muskrat Falls Generating Facility



LOWER CHURCHILL PROJECT

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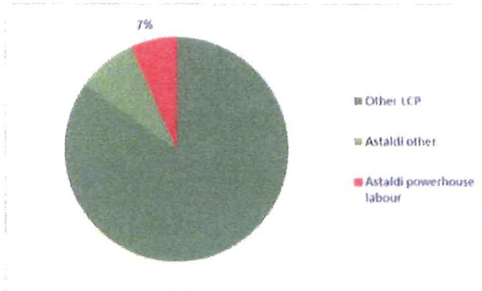

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Benchmarking Astaldi with Competition

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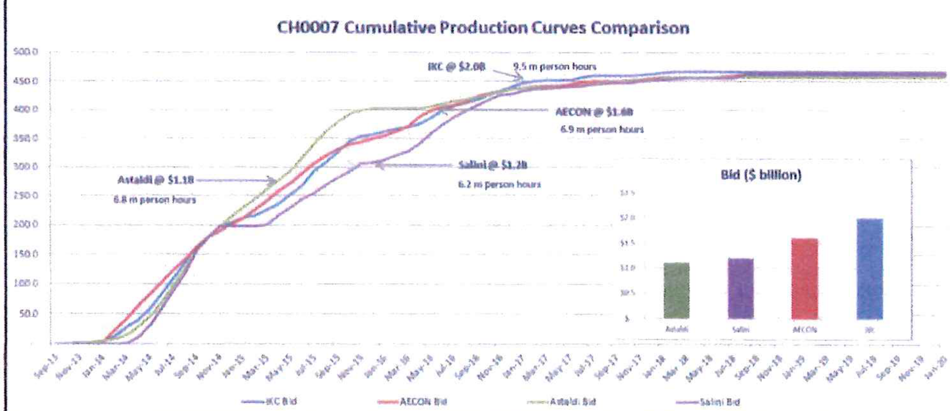

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  - potential for additional improvement

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- Engagement at highest levels of Astaldi and Nalcor continuously over last 24 months – minimum of 18 Meetings at Senior levels including 6 CEO meetings
- Nalcor support and leadership in implementing performance improving initiatives and organizational improvements
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  - Astaldi concrete production rate vastly improved and Construction management team fully functional.
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Current Situation

- Astaldi has not yet filed a formal claim, but has been constantly explaining their cost and solvency issues to us, and seeking to negotiate a solution.
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- This has been the preferred mode of interaction to date, because premature submission of a formal claim in a contractual relationship of this magnitude would signal a change in working relationship which could adversely impact the optimum project execution by reducing the benefits of seeking continuous improvement opportunities in a collaborative fashion.
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- Utilizing combination of internal expertise supported by external experts as outlined on following slide ....

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Nalcor Expertise Utilized

- Westney – Mega Project Risk consultants and Project Management Advisors
  - Examples of the expertise at this firm includes:
    - Retired CEO of one of the worlds largest construction companies
    - Retired senior VP of one of the worlds largest engineering and construction companies
    - Retired US Army corp of engineers Colonel
    - Founder of US Construction industry institute
  - They also utilize top tier financial sub-consultant to drive financial analysis
- Cleveland and Assoc.
  - Forensic Accountant with Construction Expertise
- McInnes Cooper – Construction lawyers
  - Various subconsultants
- Long International
  - Construction Claims advisors
- Internal Team members with combined Mega Project experience of hundreds of years including:
  - Commercial Experts
  - Data analysts
  - Construction experts
  - Project Management Experts

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What is the Contract Status?

- The contract with Astaldi is solid
- From a pure contractual perspective, the issues that have occurred are the result of Astaldi's actions and are the responsibility of Astaldi
- There are a combination of performance guarantee provisions in the contract
  - $200 million Letters of Credit
  - $150 million Performance Bond
  - Parent Company Guarantee Italy Head Office
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Why Negotiate with Astaldi?

- Although our pure contractual position is strong, the implications of not supporting Astaldi could result in very large exposure to the Project if Astaldi is not able to complete the job due to insolvency or even if Astaldi does not complete the job in a timely manner due to cash flow issues.
- The risk of these exposures is high, and just ignoring them because the contract position is strong is not a prudent or acceptable way forward.
- The burden of these risks will fall back to the Project by default if Astaldi is actually unable to manage them.
- The most effective way to minimize the risk and exposure when we can see it ahead of us is to do it up front, as early as reasonably possible, when we have the highest ability to contain it.

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Potential Outcomes, No Solution

- Estimated cost to complete for the contractor represents a very significant increase over the contract value.
- <u>If we do not seek a negotiated solution</u>, this will result in two potential outcomes;

Outcome A

- In-depth analysis, coupled with Astaldi's direct feedback to Nalcor, indicates a significant probability that this situation could result in Astaldi insolvency and potentially cause default
- At that point we would bring in a new contractor to complete the job, resulting in significantly more cost to the Project to complete, and a higher probability of even more schedule delay

Outcome B

- At the very least, Astaldi's cash flow issues will result in significantly slowing concrete placement and frustrating tactics
- Focus will shift from effective project completion to Astaldi cash and solvency needs
- Massive claim will be filed by Astaldi
- Significant even higher knock-on effects to project cost and schedule

Preferred Outcome

- The preferred option is to continue to work with Astaldi who are performing much better at this point, assist them with some of their cost issues to a point, thereby significantly increasing the certainty of finishing the job with the least amount of cost and schedule growth to the project

Astaldi's Cost Issue + Schedule Impact

- Additional cost to Astaldi over contract bid to complete (as estimated by Astaldi) is $600 - $650 million, not including profit. (this range could be higher, 600 - $800 million).
- Detailed discussions between Project Team and Contractor has identified a schedule delay impact of 12-18 month to powerhouse completion, <u>provided we continue to work collaboratively</u>

Commercial Principles

- Must continue to work diligently - Threats to stop = default
- Must perform as good as another contractor
- Must continue to work on efficiency (Realistic Plan)
- Must achieve acceptable Quality
- Astaldi must take exposure equivalent to at least our value of time
- Astaldi must take exposure that equals at least their security (Not PG)
- We will not be exposed to any losses last year for poor performance
- Will not give up our strong contract position
- Must get something physical for any additional investment
- Must have full waiver of claims

How to protect any further payment?

Question

- Provided we reach an agreement to provide more to Astaldi, how do we ensure such value is protected in the event Astaldi does not perform and/or becomes insolvent anyway?

Answer

1. Any additional value provided to Astaldi would be tied to actual, physical performance, and would not be paid unless we could see corresponding progress as agreed – no cash out until we see the agreed progress
2. The amounts and timing of value provided would be structured to assist their cash flow and solvency profile

Options Analysis Outline

- Elements to consider
  - Schedule increase implications on powerhouse
  - Components of estimated all-in additional cost to Project;
    - Cost of delay to Project to keep support facilities operating
    - Cost to compensate other contractors for related changes
    - Cost to assist Astaldi, if this option proceeds
    - Cost to replace Astaldi with another contractor, if this option proceeds
    - Offset value of drawing on Astaldi contract performance guarantees
  - Relative level of certainty and risk associated with each option
- Implications on trade-off regarding IDC vs Bond Payment separate from this summary

Options Outline

<u>Option 1 - Continue with Astaldi as is, no assistance;</u>

- Outcome 1A - <u>Insolvency/default</u>
  - Estimated net additional cost to Project with (higher probability) $650-950
  - Estimated schedule increase 21-27 months
- Outcome 1B - <u>No default, continued solvency</u>
  - Estimated net additional cost to Project with (lower probability) $200-360 million
  - Accompanied by a large claim which would add to cost exposure
  - Estimated schedule increase: 12-24 months (much closer to 24 months, with upward pressure)
  - Value of working together minimized, significantly increasing risk
- <u>Much less certainty, higher risk, clearly trending to the higher ranges</u>

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Options Outline

Option 2 - Continue with Astaldi as is, with assistance;

- Outcome
  - Assumes a net amount of cost assistance from Project to Astaldi in $250-300 million range (note - not certain this will be accepted)
  - Estimated net additional cost to Project $430-575 million
  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful

Option 3 - Astaldi is terminated for cause (Same outcome as Option 1A)

- Outcome
  - Estimated net additional cost to Project $650-950 million
  - Estimated schedule increase: 21-27 months
  - Much less certainty, higher risk with this option

Option Summary

	Option 1A		Option 1B		Option 2		Option 3	
Time	21-27 months		12-24 months		12-18 months		21-27 months	
Level of Certainty	Lower Certainty		Lower Certainty		Higher Certainty		Lower Certainty	
Cost								
- Carrying Costs	280	320	150	300	150	225	280	320
- 3rd Party Direct Cost	50	70	30	60	30	50	50	70
- Additional Contribution to Astaldi	0	0	0	0	250	300	0	0
SUB-TOTAL	330	390	180	360	430	575	330	390
- Additional Costs - New Contractor								
- Cost to complete	650	650			-	-	650	650
- Contractor premium	100	150			-	-	100	150
- Unanticipated Claim Payout	0	100			-	-	0	100
- Guarantee Recovery								
- Letters of Credit	-200	-165			-	-	-200	-165
- Performance Bond	-150	-100			-	-	-150	-100
- Liquidated Damages Recovery	-75	-75			-	-	-75	-75
TOTAL	655	950	180	360	430	575	655	950

Assumes contractor slows down but still somewhat cooperative - If not add time and cost (+ $130-$250)

Significant probability of default through insolvency, and then go to Option 1A

Why $250-300 mm?

- Needs to be meaningful to mitigating exposures to both parties to have a chance of successfully achieving a way forward

Project Perspective

- Project most likely exposure without settlement is $650-950 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - reduces cost exposure range to from $650-950 million to $430-575 million (including the $250-300 million)
  - Minimizes expected incremental schedule impact in range of 12-18 months
  - Payments are only made if measureable production targets achieved
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction

Why $250-300 mm?

Astaldi Perspective

- Astaldi most likely exposure without settlement is $650-800 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - Provides a cash flow injection which is material to their financing issues during their highest exposure period, 2016-2017
  - reduces Astaldi cost exposure range from $650-800 million to $400-500 million (including the $250-300 million)
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction
- Note, not certain if this will close a deal with Astaldi

Potential Parameter of a Settlement

Option 2 - Continue with Astaldi as is, with assistance;

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  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful
- Structured to ensure payment tied to measureable production
  - Unit Rates tied to Concrete Production
  - Key Milestone Payments
  - Stretch Targets
  - Performance Security Maintained
- Note, not certain if this will close a deal with Astaldi

BACK UP SLIDES

V2 - Please look at asap
Ed Martin to: Lance Clarke, Paul Harrington, Gilbert Bennett 01/22/2016 01:40 PM

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V2

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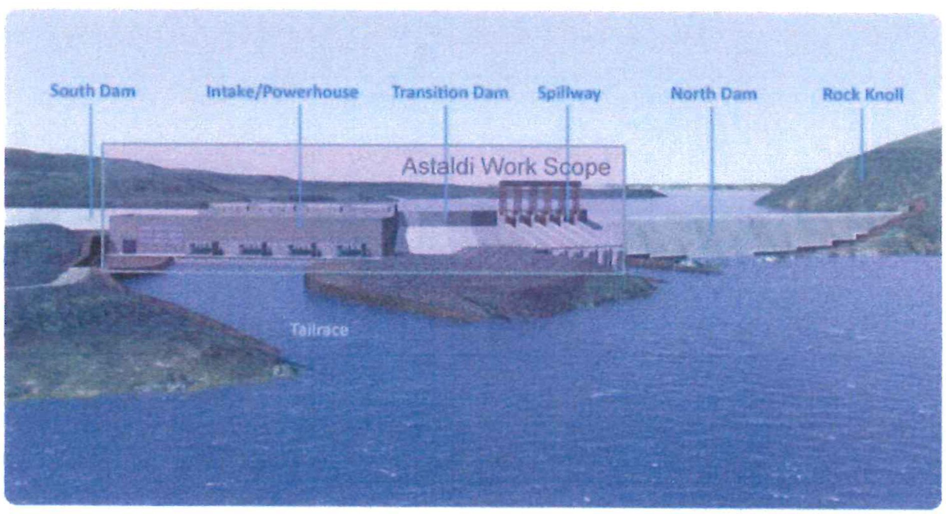

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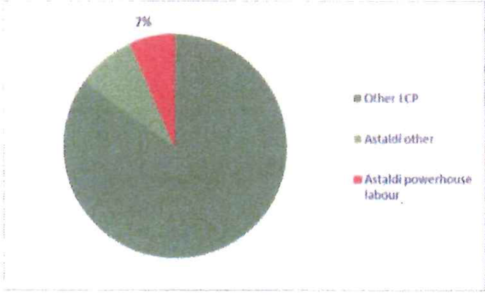

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Benchmarking Astaldi with Competition

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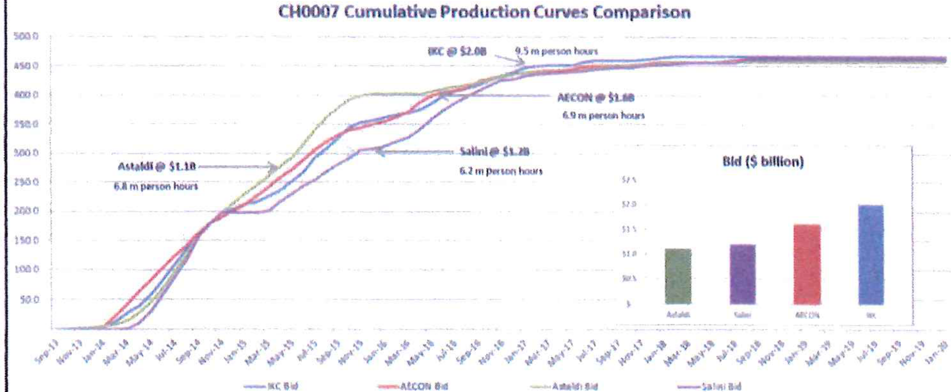
CH0007 Cumulative Production Curves Comparison



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1. Any additional value provided to Astaldi would be tied to actual, physical performance, and would not be paid unless we could see corresponding progress as agreed – no cash out until we see the agreed progress
2. The amounts and timing of value provided would be structured to assist their cash flow and solvency profile

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Options Analysis Outline

- Elements to consider
  - Schedule increase implications on powerhouse
  - Components of estimated all-in additional cost to Project;
    - Cost of delay to Project to keep support facilities operating
    - Cost to compensate other contractors for related changes
    - Cost to assist Astaldi, if this option proceeds
    - Cost to replace Astaldi with another contractor, if this option proceeds
    - Offset value of drawing on Astaldi contract performance guarantees
  - Relative level of certainty and risk associated with each option
- Implications on trade-off regarding IDC vs Bond Payment separate from this summary

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Options Outline

<u>Option 1 - Continue with Astaldi as is, no assistance;</u>

- Outcome 1A - <u>Insolvency/default</u>
  - Estimated net additional cost to Project with (higher probability) $650-950
  - Estimated schedule increase 21-27 months
- Outcome 1B - <u>No default, continued solvency</u>
  - Estimated net additional cost to Project with (lower probability) $200-360 million
  - Accompanied by a large claim which would add to cost exposure
  - Estimated schedule increase: 12-24 months (much closer to 24 months, with upward pressure)
  - Value of working together minimized, significantly increasing risk
- Much less certainty, higher risk, clearly trending to the higher ranges

Options Outline

Option 2 - Continue with Astaldi as is, with assistance;

- Outcome
  - Assumes a net amount of cost assistance from Project to Astaldi in $250-300 million range (note - not certain this will be accepted)
  - Estimated net additional cost to Project $430-575 million
  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful

Option 3 - Astaldi is terminated for cause (Same outcome as Option 1A)

- Outcome
  - Estimated net additional cost to Project $650-950 million
  - Estimated schedule increase: 21-27 months
  - Much less certainty, higher risk with this option

Why $250-300 mm?

- Needs to be meaningful to mitigating exposures to both parties to have a chance of successfully achieving a way forward

Project Perspective

- Project most likely exposure without settlement is $650-950 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - reduces cost exposure range to from $650-950 million to $430-575 million (including the $250-300 million)
  - Minimizes expected incremental schedule impact in range of 12-18 months
  - Payments are only made if measureable production targets achieved
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction

Why $250-300 mm?

Astaldi Perspective

- Astaldi most likely exposure without settlement is $650-800 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - Provides a cash flow injection which is material to their financing issues during their highest exposure period, 2016-2017
  - reduces Astaldi cost exposure range from $650-800 million to $400-500 million (including the $250-300 million)
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction
- Note, not certain if this will close a deal with Astaldi

Potential Parameter of a Settlement

Option 2 - Continue with Astaldi as is, with assistance;

- Outcome
  - Estimated net additional cost to Project $430-575 million
  - Assumes a net amount of cost assistance from Project to Astaldi in $250-300 million range (note - not certain this will be accepted)
  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful
- Structured to ensure payment tied to measureable production
  - Unit Rates tied to Concrete Production
  - Key Milestone Payments
  - Stretch Targets
  - Performance Security Maintained
- Note, not certain if this will close a deal with Astaldi

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BACK UP SLIDES

LOWER CHURCHILL PROJECT 23 nalcor energy

Nalcor Actions Slide
Lance Clarke to: Ed Martin 01/22/2016 10:31 AM
Cc: Paul Harrington, Gilbert Bennett
History: This message has been forwarded.

Ed

Paul found the old slide and we updated it a little. Anything else let us know, including if you want one of us in any conversations with the hill.

rgds

Nalcor Actions to Address Astaldi Issues.pptx

Lance Clarke
Commercial Manager (Consultant)
Nalcor Energy - Lower Churchill Project

Direct Phone: 709-737-1245
Toll Free: 1-888-576-5454 (Canada Only)
Fax: 709-737-1985
Email: lanceclarke@nalcorenergy.com
Website: http://www.nalcorenergy.com

Nalcor Actions to Address Astaldi Issues

- Engagement at highest levels of Astaldi and Nalcor continuously over last 24 months – minimum of 18 Meetings at Senior levels including 6 CEO meetings
- Nalcor support and leadership in implementing performance improving initiatives and organizational improvements
  - Planning and Execution
  - Labour Management
  - Leadership and supervision, etc.
- Nalcor provided key Construction Management personnel to Astaldi
- Nalcor Site Team augmented with senior Project Management personnel to provide on site decision making and support to Astaldi
- 2015 Status
  - Astaldi concrete production rate vastly improved and Construction management team fully functional.
  - Nalcor continues to provide support, guidance and leadership
- Estimated cost of additional Owner costs in support of Astaldi as of September 2015 were included in the AFE2 cost update and are in the range of $30M to $50M

Re: Justification Slide
Lance Clarke
to:
Ed Martin
01/21/2016 10:50 PM
Cc:
Paul Harrington, Gilbert Bennett, "Aidan J. Meade"
Hide Details
From: Lance Clarke/NLHydro
To: Ed Martin/NLHydro@nlhydro
Cc: Paul Harrington/NLHydro@nlhydro, Gilbert Bennett/NLHydro@nlhydro, "Aidan J. Meade" <aidan.meade@mcinnescooper.com>
Ed

We can't do an accounting build up to that number as I know you understand. This is about risk mitigation and what we forecast that to be worth to us. That obviously has some objective data to guide you but utilizing probabilistic forecast information also means a lot of expert subjective opinion is involved as well. The logic I provided regarding the total exposure, Astaldi's insolvency risk, our alternative exposures, the exposure of doing nothing and our clear view of Astaldi's expectations all point to this range as being a minimum supportable offer that may have a chance at success. We tested this through Counsel, Westney, etc. who all felt we were in the right ballpark. As a matter of fact two pieces of external feedback put our upper bound at 600 for a justifiable deal. I disagree but it gives you an idea of how reasonable our opening volley really is. Our view is that much more could actually be supported based on risk avoidance. Astaldi's clear rejection of this as being unacceptable makes it clear it is far from an overestimate.

It may be possible to do a ranging using the commercial principles as I used those to ensure we were staying within the bounds of our goals. I will take a crack at that first thing in the morning and see if the logic helps with the math.

rgds

Sent from my iPad

On Jan 21, 2016, at 9:11 PM, Ed Martin <EMartin@nalcorenergy.com> wrote:

> Lance,
> The question is what is the basis for the "negotiation team's assessment"? What are the factors and inputs etc that formed the basis of this range?
> Ed
>
> Sent from my iPhone
>
> On Jan 21, 2016, at 7:44 PM, Lance Clarke <LanceClarke@lowerchurchillproject.ca> wrote:
>
> > As discussed. If you wish to review let me know. Aidan and I talked through and this is how we have approached the range.
> >
> > *(See attached file: Why make the offer slide.pptx)*
> >
> > ___
> >
> > Lance Clarke

Re: Justification Slide
Ed Martin
to:
Lance Clarke
01/21/2016 09:11 PM
Cc:
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Hide Details
From: Ed Martin/NLHydro
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>
> ---
>
> Lance Clarke
> Commercial Manager (Consultant)
> Nalcor Energy - Lower Churchill Project
>
> Direct Phone: 709-737-1245
> Toll Free: 1-888-576-5454 (Canada Only)
> Fax: 709-737-1985
> Email: lanceclarke@nalcorenergy.com
> Website: http://www.nalcorenergy.com
>
> <Why make the offer slide.pptx>

Why Make the Offer?

Confidential and Privileged in Contemplation of litigation

- Analysis of alternatives shows completion “without” Astaldi brings high cost exposure
- Overall cost to complete for Astaldi seen as being +$600 Million
- Astaldi’s ability and desire to complete tied to it’s financial well being
    - Without cash injection this may be at risk exposing Nalcor to much higher cost alternatives
- Riding it out contractually and going to dispute also exposes Nalcor to:
    - Additional time loss at a value of $150-$200 million per year
    - Much higher probability of claims and legal costs
    - Due to financial constraints Astaldi likely to slow down to manage cash flow without cash injection
- Based on these parameters alone and the negotiation team’s assessment of what a minimum amount may be to get Astaldi to accept, an offer of $200 - $300 million would be less than the likely minimum exposure Nalcor would have whilst at the same time removing the much higher valued risks that exist.

Justification Slide
Lance Clarke to: Ed Martin 01/21/2016 07:44 PM
Cc: Paul Harrington, Gilbert Bennett, "Aidan J. Meade"

As discussed. If you wish to review let me know. Aidan and I talked through and this is how we have approached the range.

Why make the offer slide.pptx

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Commercial Manager (Consultant)
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Data Captured/Analysis Done

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- Forensic audit on cost
- Cross industry project performance analysis of Astaldi global projects by third party
- Astaldi financial corporate performance including liquidity analysis
- Three separate reviews used to forecast likely ranges of cost and schedule to complete for Astaldi
- Historical data and fact capture done by claims and legal team to prepare for potential dispute and provide knowledge for negotiations
- Ongoing monitoring and analysis done of Astaldi's current operations and improvement to ensure ability and likelihood to complete

Parties Involved in Management and Analysis

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- Westney – Mega Project Risk consultants and Project Management Advisors
  - Top tier financial subconsultant to drive financial analysis
  - Includes:
    - Retired CEO of one of the worlds largest construction companies
    - Retired senior VP of one of the worlds largest engineering and construction companies
    - Retired US Army corp of engineers Colonel
    - Founder of US Construction industry institute
- Cleveland and Assoc.
  - Forensic Accountant with Construction Expertise
- McInnes Cooper – Construction lawyers
  - Various subconsultants
- Long International
  - Construction Claims advisors
- Internal Team members with combined Mega Project experience of hundreds of years including:
  - Commercial Experts
  - Data analysts
  - Construction experts
  - Project Management Experts, etc.

Extra Slides
Lance Clarke to: Ed Martin 01/21/2016 05:22 PM
Cc: Gilbert Bennett, Paul Harrington

Astaldi Minister deck supplemental slides Jan 20 20 16.pptx

Lance Clarke
Commercial Manager (Consultant)
Nalcor Energy - Lower Churchill Project

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Email: lanceclarke@nalcorenergy.com
Website: http://www.nalcorenergy.com

Draft
Ed Martin to: Lance Clarke, Gilbert Bennett, Paul Harrington 01/21/2016 12:23 PM

Call me asap

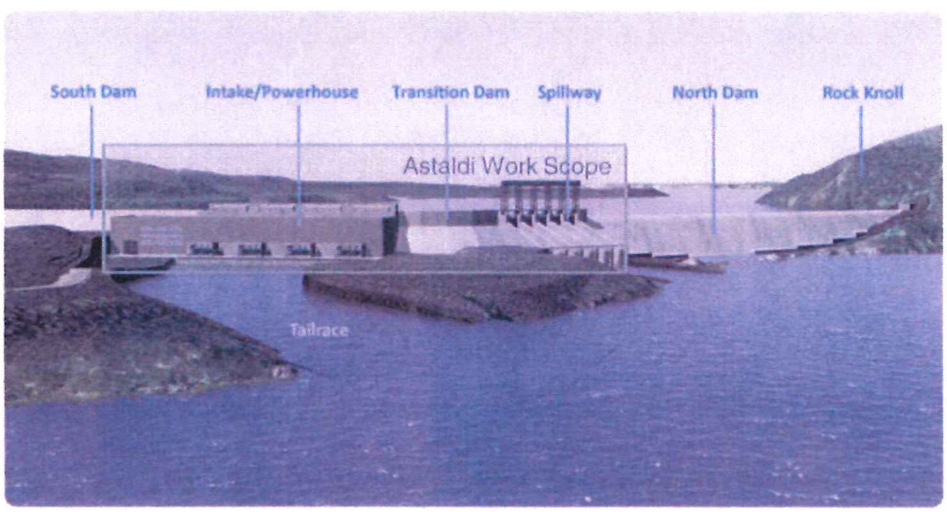
MF Briefing - January 2016.pptx

Muskrat Falls Update

January 2016

Boundless Energy

Muskrat Falls Generating Facility



LOWER CHURCHILL PROJECT

Contractor Performance to Date

- Exceedingly slow start in 2013-14
  - Astaldi ramp-up pace and missteps
  - Integrated Cover System (ICS) execution and consequential removal issues
  - Labor contract management opportunities missed
  - Astaldi mismanagement of the workforce allocation between production and support workers, particularly during 2014
  - Astaldi not realizing the productivity expectations in their bid
- As a result of the Project Team's work with the Contractor, significant turnaround in Summer 2015
  - 150,000 cubic meters placed to date
- Estimated cost to complete for the contractor represents a significant increase over the contract value and if Contractor were to absorb that full cost could result in their insolvency.

Implications

- Additional cost over contract bid to complete estimated by Astaldi at $600 - $650 million, not including profit. (Probabilistically this range could be higher, 600 - $800 million).
- Detailed discussions between Project Team and Contractor has identified a schedule delay impact of 12-18 month to powerhouse completion, provided we continue to work collaboritively
- Astaldi contract incorporates completion guarantees and liquidated damages
- Provided Astaldi does not default or become insolvent, forcing default, the contract states they will finish, and these costs are to their account, although once liquidated damages ($75 million) are forfeited, they could stretch out completion of the job to suit their cash flow, up to the point of not causing a default under the contract
- High probability they would present a claim in such an event

Options Outline

- Elements to consider
  - Schedule increase implications on powerhouse
  - Components of estimated all-in additional cost to Project;
    - Cost of delay to Project to keep support facilities operating
    - Cost to compensate other contractors for related changes
    - Cost to assist Astaldi, if this option proceeds
    - Cost to replace Astaldi with another contractor, if this option proceeds
    - Offset value of drawing on Astaldi contract performance guarantees
  - Relative level of certainty and risk associated with each option
- Implications on trade-off regarding IDC vs Bond Payment separate from this summary

Options Outline

- Continue with Astaldi as is, no assistance;
  - Schedule increase: 12-24 months
  - Estimated all-in additional cost to Project with <u>no default, continued solvency</u> (lower probability) $200-360 million
  - Most likely accompanied by a large claim
  - Value of working together minimized
  - Estimated additional cost to Project with <u>insolvency/default</u> (higher probability) $700-950
  - Less certainty, higher risk with this option

Commercial Principles

- Must continue to work diligently - Threats to stop = default
- Must perform as good as another contractor
- Must continue to work on efficiency (Realistic Plan)
- Must achieve acceptable Quality
- Astaldi must take exposure equivalent to at least our value of time
- Astaldi must take exposure that equals at least their security (Not PG)
- We will not be exposed to any losses last year for poor performance
- Will not give up our strong contract position
- Must get something physical for any additional investment
- Must have full waiver of claims

Offer Components

- In the range of assistance from Project to Astaldi in the range of $250 to $300 million net cost to Project, structured as;
  - Unit Rates tied to Concrete Production
  - Key Milestone Payments
  - Stretch Targets
  - Advance Payment Recoup
  - Performance Security Maintained

Meeting Friday from 10 to 11 am - pls advise participants. Tks
Bev Tucker to: Paul Harrington, Lance Clarke, Ed Martin 01/14/2016 01:35 PM

Bev Tucker
Executive Assistant to E. J. Martin
President and Chief Executive Officer
Nalcor Energy
t. (709) 737-1278 f. (709) 737-1782
e. btucker@nalcorenergy.com
w. nalcorenergy.com

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?

Accepted: alignment on cost forecast

Thu 01/14/2016 10:15 AM - 11:15 AM

Location: my office

Jason Kean has accepted this meeting invitation	
Required:	Anthony Embury/NLHydro@NLHYDRO, Ed Bush/NLHydro@NLHYDRO, George Chehab/LCP/NLHydro@NLHYDRO, Jason Kean/NLHydro@NLHydro

Tomorrow
Paul Harrington to: Ed Martin 01/25/2016 08:09 PM

Ed
No problem about how we deal with the folks tomorrow. We may have to take a few jabs but will not respond. I think that Lance is running a bit too fast at the moment and he will slow down when he gets home tonight. He handles himself well under stress , we can play things by ear tomorrow and will follow your lead. We have nothing to apologize for but need to understand that the folks we are dealing with are not as well informed as we are so need to reach out without looking like salesmen
This is just another challenge that makes us stronger
Regards Paul

Sent from my iPad

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Muskrat Falls Update

FINAL VERSION

January 2016

Boundless Energy

DRAFT CABINET PRESENTATION

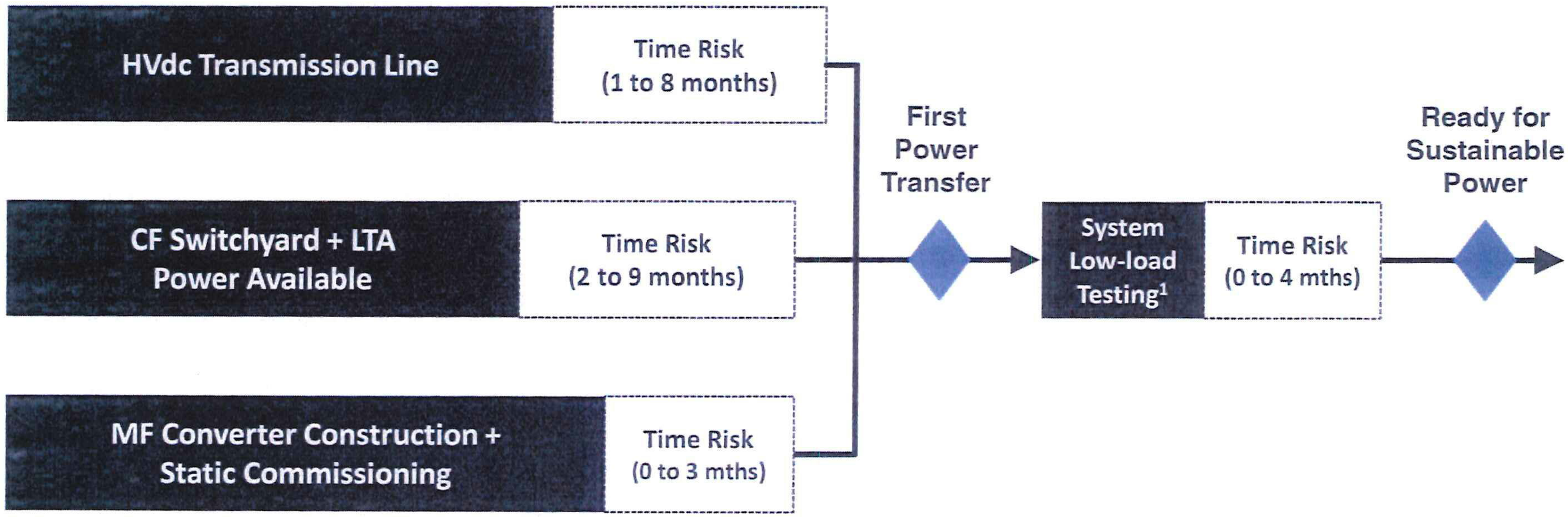
nalcor energy
LOWER CHURCHILL PROJECT

26th Jan 2016

Background

- Westney engaged in December to support LCMC's planned cost and schedule risk assessment ("QRA") for LCP
- QRA broken into 2 separate reports: LTA /LITL and MF

3 separate work streams drive the schedule for LTA/LITL energization and first power transfer from Labrador



[1]System low-load testing with 70 MW block of recall power from Churchill Falls

Prediction Ranges for LITL/LTA Cost and Schedule

Current AFE / sanction schedule   Bottom of Predictive Range (P25)   Top of Predictive Range (P75)

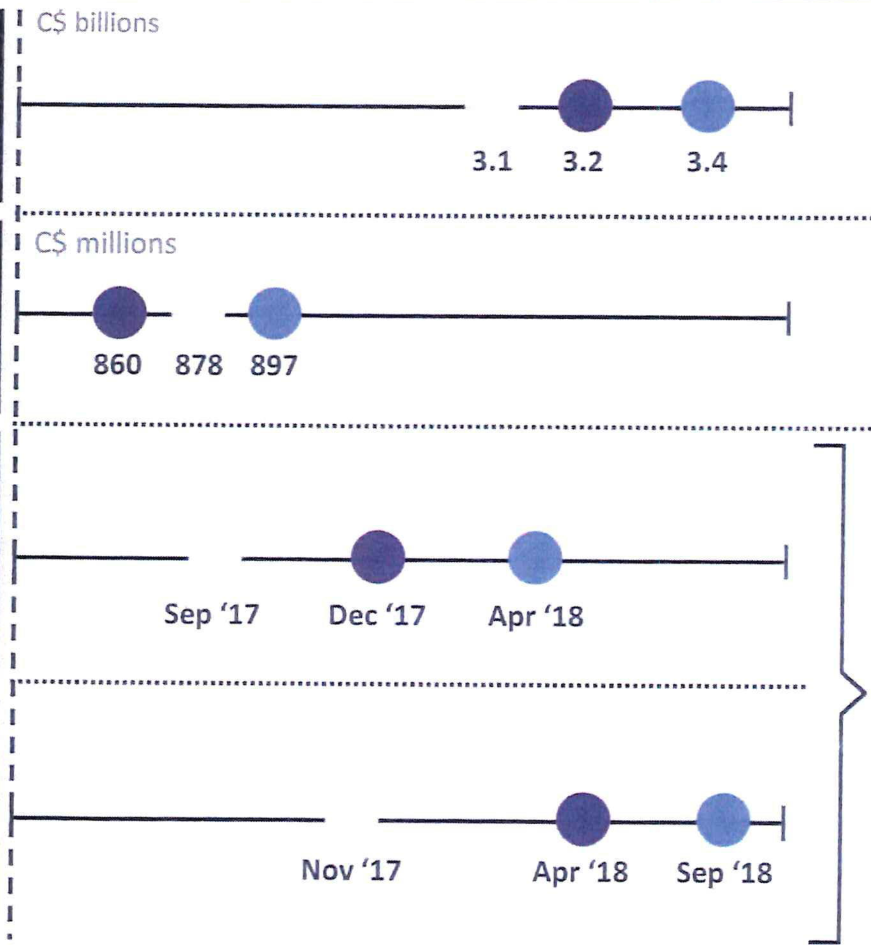
Range of outcomes

Cost for LITL

Cost for LTA

Schedule for first power transfer

Schedule for sustainable power



Details

- Risk exposure beyond the AFE Rev.2 is C$150-300 million. Driven by TL access costs and carrying costs associated
- The current AFE of C$878 million is within the predictive range
- The HVdc Transmission Line (TL), Muskrat Falls (MF) Converter, and Churchill Falls (CF) Switchyard (key elements of the LTA/LITL transmission system) are driving the timeline to completion
- Achieving first power transfer in 2017 is within the predictive range, albeit toward the lower end (P25)
- Sustainable power risk is driven by control system commissioning risk

LITL Major Cost Drivers

Risk	Mean impact C$ millions	Best-worst case C$ millions	Details
Un-risked LITL cost	2,993		▪ AFE Rev.2 less available contingency[1]
A Access for HVdc transmission line	138	110 to 160	▪ Unfunded scope - LRM and Avalon Peninsula ▪ Uncertainty re: winter access in Labrador & Eastern NL and remediation plans post-constr.
B Owner's project costs	97	75 to 116	▪ Carrying costs to maintain team to lengthen schedule plus additional resources to manage underperforming contractors
C Construction of 350 kV HVdc transmission line	19	-6 to 40	▪ Geotechnical conditions requiring more expensive H-piles ▪ Offset by anticipated recovery of partial LDs
D Converters - MF and Soldier's Pond	[redacted]	[redacted]	▪ Open change request (e.g. filters, etc.) and allowances for ECNs driving outlook ▪ Offset by anticipated recovery of partial LDs
E All other risks	59	37 to 80	▪ Reference breakdown of tactical risks
Risk-adjusted LITL cost (P25 to P75)		[redacted]	

[1]Total amount with contingency is [redacted]

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LOWER CHURCHILL PROJECT

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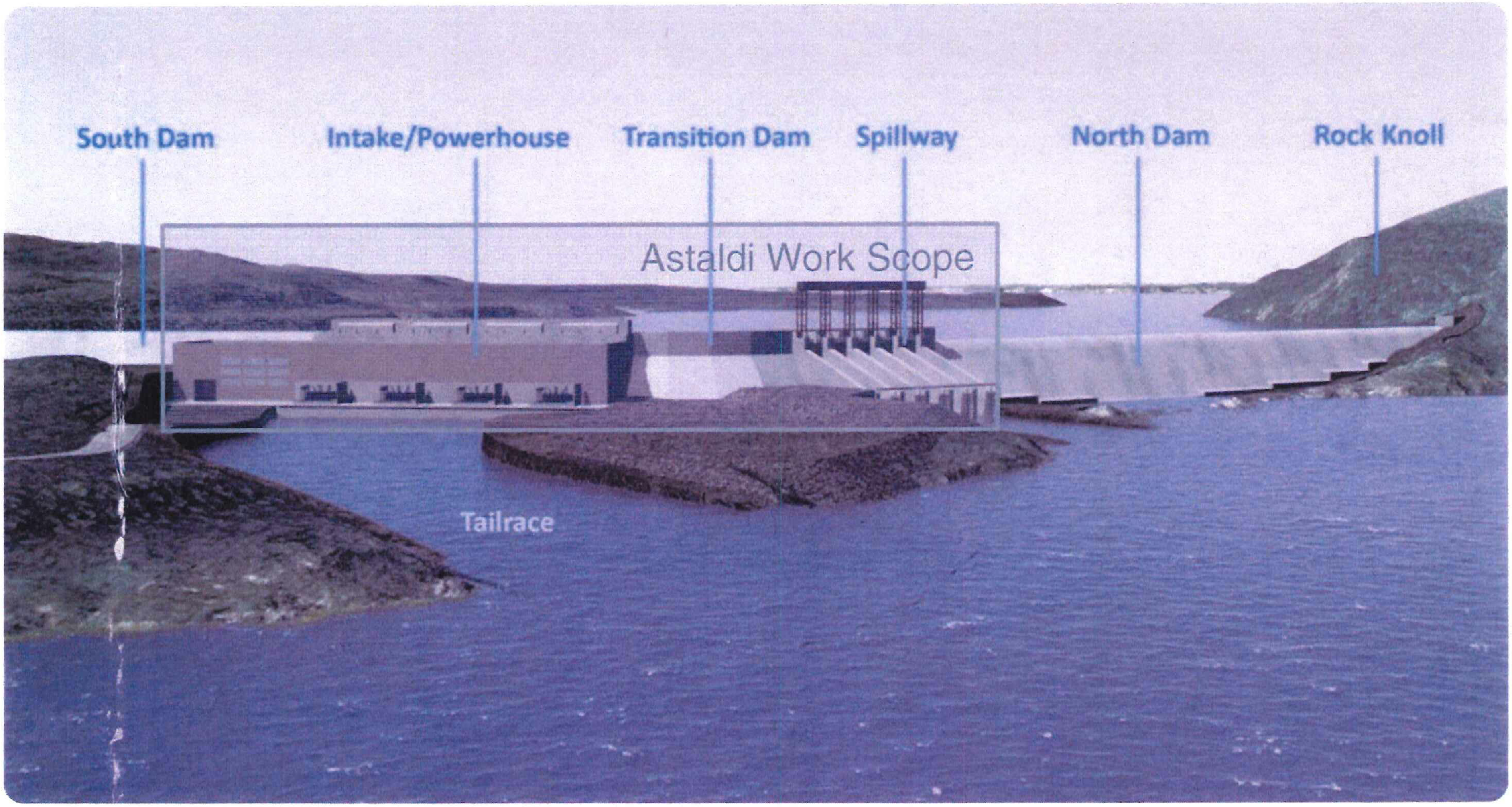
Muskrat Falls Generating Facility



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Astaldi in Context

Lower Churchill Project

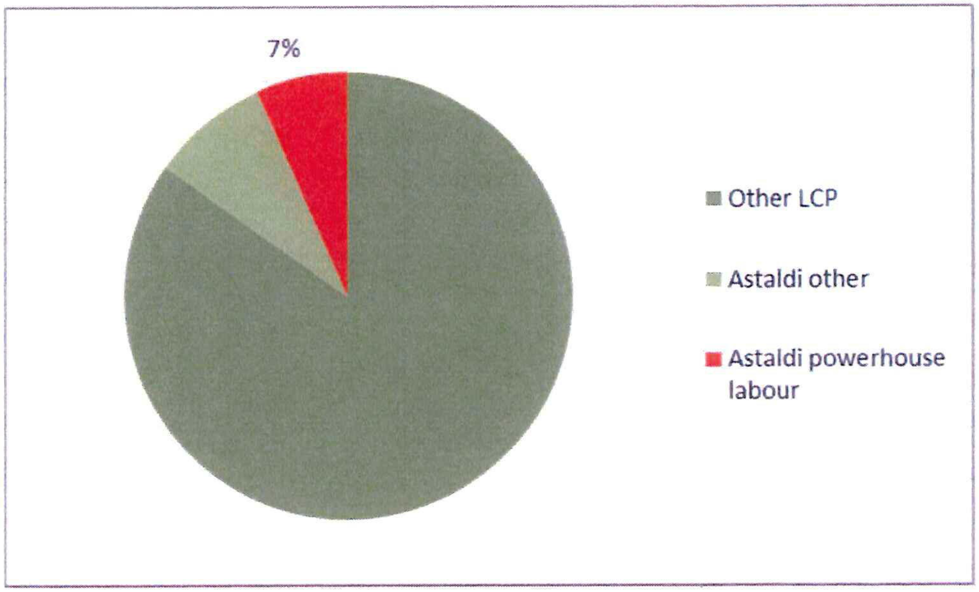
Component	**Amount ($M)**
Transmission line	2,160
DC specialties	1,156
MF Generation	3,068
Other	1,082
Contingency	187
Total	**7,653**

MF Generation

MF Component	**Amount ($M)**
Infrastructure and Services	550
Electrical/ Mechanical & Hydro-Mechanical	622
Civil works	739
Astaldi Scope	1,157
Total	**3,068**

Astaldi Scope

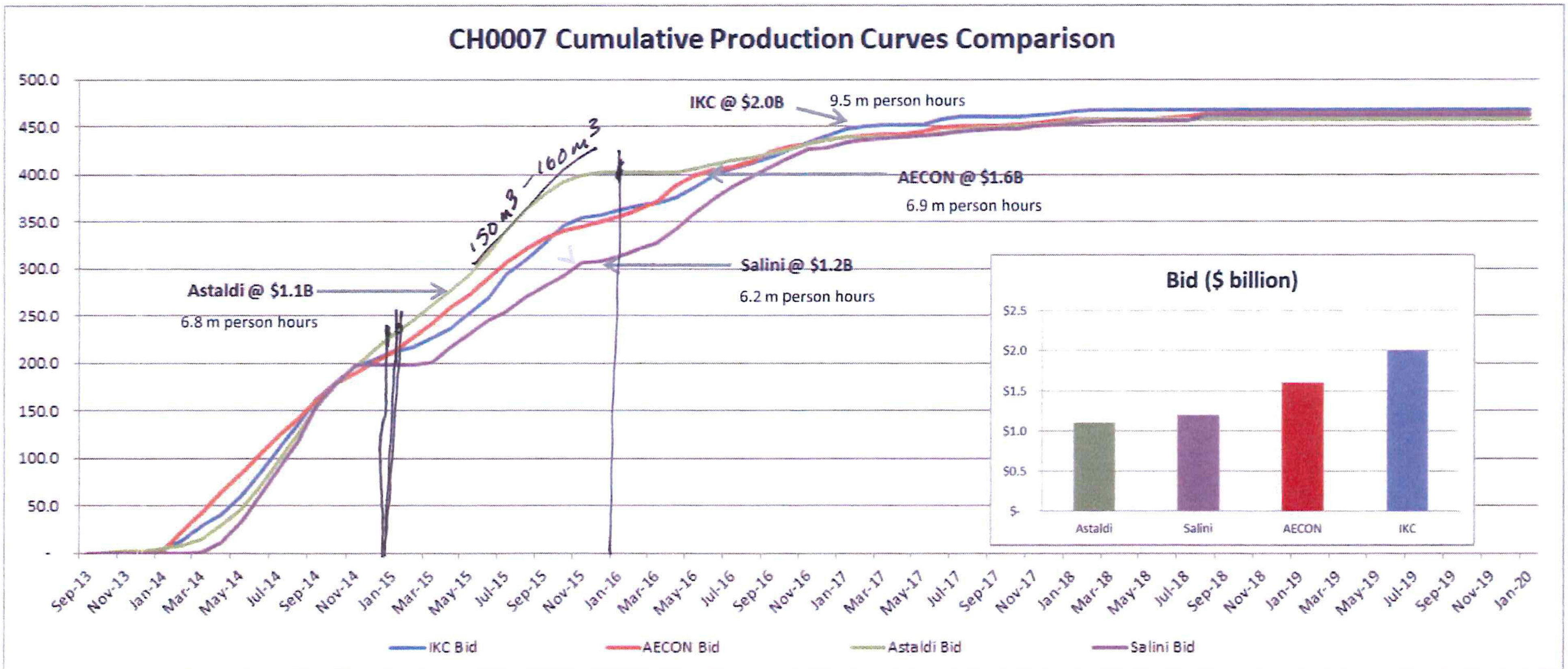
Astaldi Component	**Amount ($M)**
Mob/Demob. and Infrastructure	233
Powerhouse Unit rated items (Fixed price)	201
Powerhouse Labour	504
Spillway and transition dams	219
Total	**1,157**



nalcor energy

Benchmarking Astaldi with Competition

Privileged and Confidential in Contemplation of Litigation



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Astaldi Performance to Date

- Exceedingly slow start in 2013-14
  - Astaldi ramp-up pace and missteps
  - Integrated Cover System (ICS) execution and consequential removal issues
  - Labor contract management opportunities missed
  - Astaldi mismanagement of the workforce allocation between production and support workers, particularly during 2014
  - Astaldi not realizing the productivity expectations in their bid
- Significant turnaround Summer 2015, as a result of the Project Team's work with the Contractor,
  - 150,000 cubic meters placed to date
  - performing much better at this point,
  - established, functioning team
  - potential for additional improvement

Nalcor Actions to Address Astaldi Issues

- Engagement at highest levels of Astaldi and Nalcor continuously over last 24 months – minimum of 18 Meetings at Senior levels including 6 CEO meetings
- Nalcor support and leadership in implementing performance improving initiatives and organizational improvements
  - Planning and Execution
  - Labour Management
  - Leadership and supervision, etc.
- Nalcor provided key Construction Management personnel to Astaldi
- Nalcor Site Team augmented with senior Project Management personnel to provide on site decision making and support to Astaldi
- 2015 Status
  - Astaldi concrete production rate vastly improved and Construction management team fully functional.
  - Nalcor continues to provide support, guidance and leadership

V. Careful

Current Situation

- Astaldi has not yet filed a formal claim, but has been constantly explaining their cost and solvency issues to us, and seeking to negotiate a solution.
- They have a very significant problem.
- We have continued to work in a collaborative manner with both parties focused on improving project execution, which is occurring.
- This has been the preferred mode of interaction to date, because premature submission of a formal claim in a contractual relationship of this magnitude would signal a change in working relationship which could adversely impact the optimum project execution by reducing the benefits of seeking continuous improvement opportunities in a collaborative fashion.
- Astaldi has now reached a point where they need to address issues which are fundamentally impacting their company's future.

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Nalcor Analysis Completed

- Forensic audit on Astaldi cost, at their premises
- Cross industry project performance analysis of Astaldi global projects by third party
- Astaldi financial corporate performance including liquidity analysis
- Three separate reviews used to forecast likely ranges of cost and schedule to complete for Astaldi
- Historical data and fact capture done by claims and legal team to prepare for potential dispute and provide knowledge for negotiations
- Ongoing monitoring and analysis done of Astaldi's current operations and improvement to ensure ability and likelihood to complete
- Utilizing combination of internal expertise supported by external experts as outlined on following slide ....

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Nalcor Expertise Utilized

- Westney – Mega Project Risk consultants and Project Management Advisors
  - Examples of the expertise at this firm includes:
    - Retired CEO of one of the worlds largest construction companies
    - Retired senior VP of one of the worlds largest engineering and construction companies
    - Retired US Army corp of engineers Colonel
    - Founder of US Construction industry institute
  - They also utilize top tier financial sub-consultant to drive financial analysis
- Cleveland and Assoc.
  - Forensic Accountant with Construction Expertise
- McInnes Cooper – Construction lawyers
  - Various subconsultants
- Long International
  - Construction Claims advisors
- Internal Team members with combined Mega Project experience of hundreds of years including:
  - Commercial Experts
  - Data analysts
  - Construction experts
  - Project Management Experts

What is the Contract Status?

- The contract with Astaldi is solid
- From a pure contractual perspective, the issues that have occurred are the result of Astaldi's actions and are the responsibility of Astaldi
- There are a combination of performance guarantee provisions in the contract
  - $200 million Letters of Credit
  - $150 million Performance Bond
  - Parent Company Guarantee Italy Head Office
  - $75 million Liquidated Damages provisions

Why Negotiate with Astaldi?

- Although our pure contractual position is strong, the implications of not supporting Astaldi could result in very large exposure to the Project if Astaldi is not able to complete the job due to insolvency or even if Astaldi does not complete the job in a timely manner due to cash flow issues.
- The risk of these exposures is high, and just ignoring them because the contract position is strong is not a prudent or acceptable way forward.
- The burden of these risks will fall back to the Project by default if Astaldi is actually unable to manage them.
- The most effective way to minimize the risk and exposure when we can see it ahead of us is to do it up front, as early as reasonably possible, when we have the highest ability to contain it.

Potential Outcomes, No Solution

- Estimated cost to complete for the contractor represents a very significant increase over the contract value.
- If we do not seek a negotiated solution, this will result in two potential outcomes;

Outcome A

- In-depth analysis, coupled with Astaldi's direct feedback to Nalcor, indicates a significant probability that this situation could result in Astaldi insolvency and potentially cause default
- At that point we would bring in a new contractor to complete the job, resulting in significantly more cost to the Project to complete, and a higher probability of even more schedule delay

Outcome B

- At the very least, Astaldi's cash flow issues will result in significantly slowing concrete placement and frustrating tactics
- Focus will shift from effective project completion to Astaldi cash and solvency needs
- Massive claim will be filed by Astaldi
- Significant even higher knock-on effects to project cost and schedule

Preferred Outcome

- The preferred option is to continue to work with Astaldi who are performing much better at this point, assist them with some of their cost issues to a point, thereby significantly increasing the certainty of finishing the job with the least amount of cost and schedule growth to the project

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Astaldi's Cost Issue + Schedule Impact

- Additional cost to Astaldi over contract bid to complete (as estimated by Astaldi) is $600 - $650 million, not including profit. (this range could be higher, 600 - $800 million).
- Detailed discussions between Project Team and Contractor has identified a schedule delay impact of 12-18 month to powerhouse completion, provided we continue to work collaboratively

How to protect any further payment?

Question

- Provided we reach an agreement to provide more to Astaldi, how do we ensure such value is protected in the event Astaldi does not perform and/or becomes insolvent anyway?

Answer

1. Any additional value provided to Astaldi would be tied to actual, physical performance, and would not be paid unless we could see corresponding progress as agreed – no cash out until we see the agreed progress
2. The amounts and timing of value provided would be structured to assist their cash flow and solvency profile

Options Analysis Outline

- Elements to consider
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    - Cost to assist Astaldi, if this option proceeds
    - Cost to replace Astaldi with another contractor, if this option proceeds
    - Offset value of drawing on Astaldi contract performance guarantees
  - Relative level of certainty and risk associated with each option
- Implications on trade-off regarding IDC vs Bond Payment separate from this summary

Options Outline

Option 1 - Continue with Astaldi as is, no assistance;

- Outcome 1A - Insolvency/default
  - Estimated net additional cost to Project with (higher probability) $650-950
  - Estimated schedule increase 21-27 months
- Outcome 1B - No default, continued solvency
  - Estimated net additional cost to Project with (lower probability) $350-500 million
  - Accompanied by a large claim which would add to cost exposure
  - Estimated schedule increase: Difficult to quantify, depends on contractor situation, limited control, have to assume > 24 months
  - Value of working together minimized, significantly increasing risk
- Much less certainty, higher risk, clearly trending to the higher ranges

Options Outline

<u>Option 2 - Continue with Astaldi as is, with assistance;</u>

- Outcome
  - Assumes a net amount of cost assistance from Project to Astaldi in $250-300 million range (note - not certain this will be accepted)
  - Estimated net additional cost to Project $430-575 million
  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful

<u>Option 3 - Astaldi is terminated for cause (Same outcome as Option 1A)</u>

- Outcome
  - Estimated net additional cost to Project $650-950 million
  - Estimated schedule increase: 21-27 months
  - Much less certainty, higher risk with this option

Why $250-300 mm?

- Needs to be meaningful to mitigating exposures to both parties to have a chance of successfully achieving a way forward

Project Perspective

- Project most likely exposure without settlement is $650-950 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - reduces cost exposure range to from $650-950 million to $430-575 million (including the $250-300 million)
  - Minimizes expected incremental schedule impact in range of 12-18 months
  - Payments are only made if measureable production targets achieved
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction

Why $250-300 mm?

Astaldi Perspective

- Astaldi most likely exposure without settlement is $650-800 million
- A $250-300 million dollar additional input to Astaldi has the following impact
  - Provides a cash flow injection which is material to their financing issues during their highest exposure period, 2016-2017
  - reduces Astaldi cost exposure range from $650-800 million to $400-500 million (including the $250-300 million)
  - Maintains collaborative approach, increasing probability of success
  - Significantly increases certainty of successfully meeting these outcomes, and maximizes risk reduction
- Note, not certain if this will close a deal with Astaldi

Potential Parameter of a Settlement

Option 2 - Continue with Astaldi as is, with assistance;

- Outcome
  - Estimated net additional cost to Project $430-575 million
  - Assumes a net amount of cost assistance from Project to Astaldi in $250-300 million range (note - not certain this will be accepted)
  - Estimated schedule increase: 12-18 months
  - Much higher certainty, less risk with this option, if successful
- Structured to ensure payment tied to measureable production
  - Unit Rates tied to Concrete Production
  - Key Milestone Payments
  - Stretch Targets
  - Performance Security Maintained
- Note, not certain if this will close a deal with Astaldi