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**Subject:** Presentation to GNL - Current EY Delivery Risks \_ 20160128.pptx  
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**Attachments:** [Presentation to GNL - Current EY Delivery Risks \\_ 20160128.pptx](#)

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This was the final presentation material provided to Julia. Thieu, please put on file as final and consider any quality requirements (RAS signed by myself and Kirsten). Thank you.

# Muskrat Falls Project

## EY Review Update

### Confidential

EY Delivery Risks  
28 January 2016

# Agenda

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- ▶ This week's focus
  
- ▶ Delivery risk 1: Delays in receipt of data and information
  
- ▶ Delivery risk 2: Delays in Nalcor re-baselining timelines
  - ▶ Fundamental importance of Astaldi
  
- ▶ Options to optimize scope and timeline

# This week's focus: An in-depth review of the major contracts

Time	26 January 2016	27 January 2016	28 January 2016	29 January 2016
8:30 AM	Special Meeting/Nalcor Board Docs. With G. Bennett/P. Harrington			
9:00 AM				
9:30 AM				
10:00 AM		One-on-One with Brian Crawley	CT-0319 Valard/Hvac Transmission CF to MF	
10:30 AM				
11:00 AM			Break	CD-0501 Alstom/Converters & Transition Compounds
11:30 AM				
12:00 PM			CT-0327 Valard/HVdc Transmission MF to SP	Break
12:30 PM				
1:00 PM	CH-0030 Andritz Hydro/Turbines & Generators	CH-0007 Astaldi/Powerhouse, Intake, Spillway,		CD-0502 Alstom/AC Substations
1:30 PM				Break
2:00 PM		Break		CD-0534 Alstom/Synchronous Condensers
2:30 PM	Break	CH-0008 Gilbert/North Spur Stabilization		
3:00 PM	CH-0032 Andritz Hydro/Hydro-Mechanical (gates)		Special Session on DG3 Cost and Schedule Risk Assessment	Check-in Progress with Paul Harrington
3:30 PM		Break		
4:00 PM		CH-0009 Bernard-Pennecon/North and South Dams		
4:30 PM				
5:00 PM				

- ▶ This weeks meetings are focused on contractor progress, performance and forecast
- ▶ We had identified lack of availability of data as a key risk for our productivity this week and escalated the issue to Nalcor on 23 January 2016

# Risk 1: Unanticipated delays in receiving data may negatively impact EY delivery schedule

- ▶ A significant volume of data has been received and we discuss outstanding data requests with Nalcor each day
- ▶ There have been a number of obstacles to timely receipt of data: NDA signing, competing priorities at Nalcor, delayed requests for clarification/justification, document release process
- ▶ The greatest delays have related to the most critical data requests:

Data Requested	Date Requested	Date Received
Contractor Progress Reports	Before SOW signing on 23 December 2015	Ongoing. Release of latest reports only approved 26 January
Contract performance metrics	Before SOW signing on 23 December 2015 Clarified 20 January 2016	Not yet received. Further clarification sought by Nalcor this week

- ▶ The above delays have impacted efficiency and effectiveness these past two weeks because we could not perform certain data analysis required and they impaired our ability to prepare for deep dive sessions with Nalcor.
  - ▶ This results in a risk that additional follow on meetings with Nalcor will be required on certain major contracts.
  - ▶ This is not allowed for in delivery schedule timing, but may be a moot point based on the options to be considered in relation to Risk 2 presented in this deck

## Risk 2: A definitive Nalcor forecast position, which is a 'Condition for Success' for the EY review, may not be available within current EY delivery timelines

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- ▶ EY was advised in early January 2016 that Nalcor was involved in discussions in relation to Astaldi
- ▶ EY understood that data and information related to this contractor would not be made available until the first week of February 2016
- ▶ On 15 January, it became apparent to EY that the ongoing discussions between Nalcor and Astaldi are extensive
- ▶ During the week ending 22 January, EY gained a more fullsome understanding of the anticipated process that Nalcor is undertaking. This includes a re-baselining effort and quantitative risk assessment which will likely extend to late March 2016
- ▶ Project components other than MFG are also going through a process of re-baselining and risk assessment

## Risk 2: Implications

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- ▶ A condition of success for a review of any project's cost and schedule forecast is that the project have established its own position on cost and schedule forecast. This would include:
  - ▶ Re-baselined project schedule, cost and risks (including any knock on effects)
  - ▶ Transparency on the quantification of risk within the re-baselined plan – i.e., Monte Carlo simulation
  
- ▶ We know that these conditions are not presently met for this project:
  - ▶ Nalcor's re-baselining effort and quantitative risk assessment (QRA) for the Muskrat Falls Generation project is anticipated to be completed by **late March** (this is dependent on the timing of the conclusion of the Astaldi discussions)
  - ▶ Nalcor's re-baselining effort and QRA for the LTA and LITL projects will be completed **1<sup>st</sup> week of February 2016**
  
- ▶ **Transparency Risk:** EY currently does not have access to the relevant information related to the above noted activities that we require to effectively complete our review and enable GNL to have ongoing oversight over the most critical Project activities (i.e. activities regarding Astaldi) at this critical juncture of the Project. Without EY and GNL having this access and transparency, GNL will be in a difficult position to exercise oversight throughout this important period and may instead be relegated to a backward looking review exercise.
  
- ▶ **Timeline Risk:** In the absence of ongoing monitoring, EY will not be able to assess the outcomes of Nalcor's efforts and final position in these areas within current EY delivery timelines. This limits our ability to include the outputs of these QRA's in any report issued by the existing final report deadline of first week of March 2016.

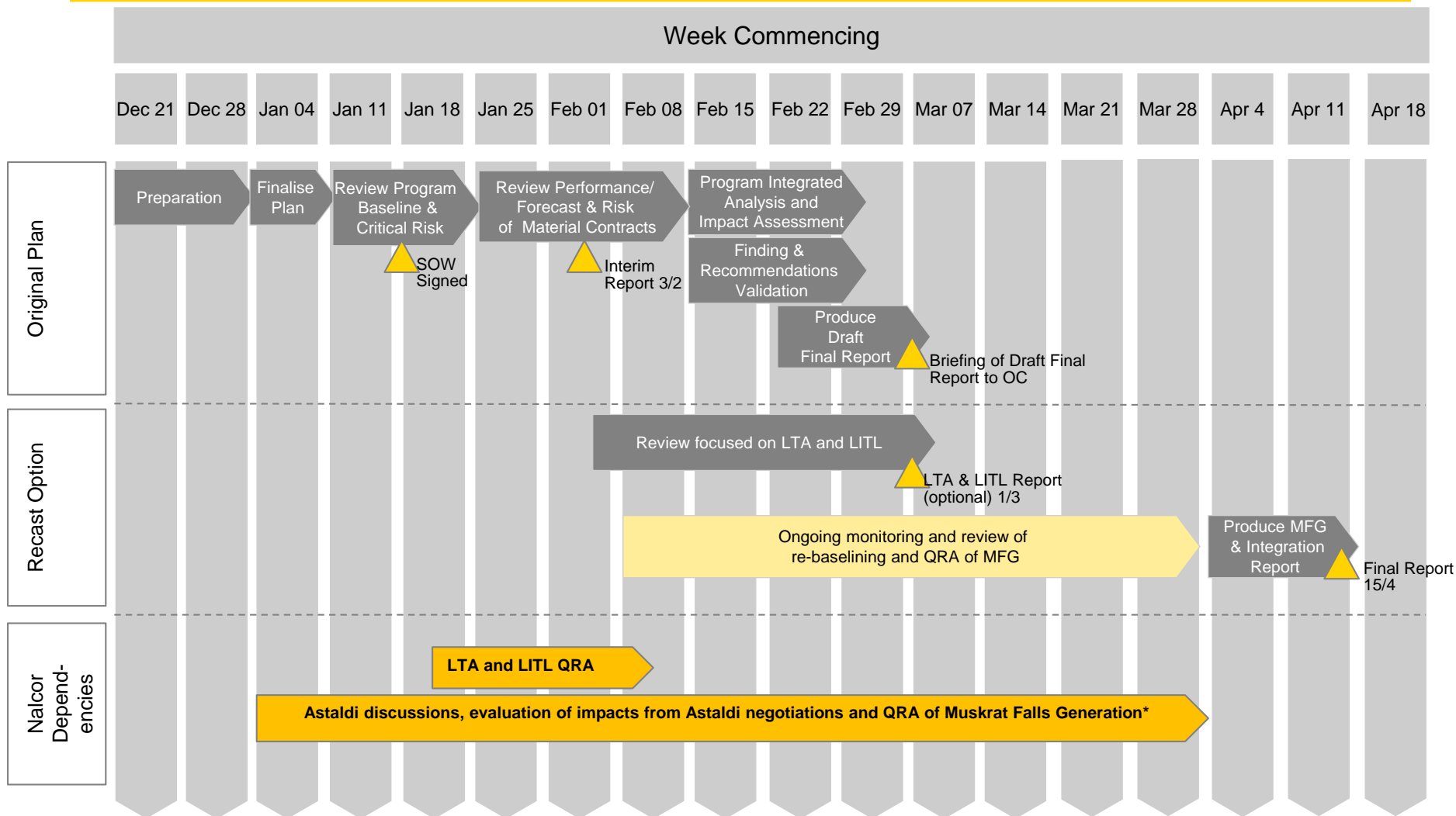
# Options to consider address the implications of Risk 2 and maximize value to GNL

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- ▶ Grant EY full visibility to the re-baselining and QRA efforts as they are being conducted.
  - ▶ This will enable GNL to have timely and ongoing oversight over the activities of the Project (i.e. activities regarding Astaldi) at this critical juncture of the project
    - ▶ This has standalone and significant knock on implications to the outcome of the Muskrat Falls Project
  - ▶ This will impact EY's ability to provide a quality and robust assessment in a timely manner
  - ▶ This will enable compression of EY reporting timeline (to be discussed) and efficiency for Nalcor in avoiding holding subsequent meetings/activities for the EY team
- ▶ Recast EY's reporting timeline to take into account Nalcor's re-baseline and QRA activities could be considered
  - ▶ Limit scope of end of February report to LTA and LITL assets (this is dependent on timely completion of the QRA for LTA and LITL)
  - ▶ Walk alongside Nalcor team for the re-baselining and QRA of MFG as a monitor for GNL (not be active participant in those activities)
  - ▶ Produce final report focused on MFG and overall project integration once Nalcor has completed the re-baselining and QRA for MFG



# Impact of delays of Nalcor forecast position has the following impact on EY schedule



\* These timelines are indicative, based on discussions with Nalcor. The timing of the conclusion of the Astaldi discussions, and its outcome, are not controllable by Nalcor.

## Next steps...

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- ▶ Discuss next steps:
  - ▶ Additional briefings
  - ▶ Additional stakeholder engagement
  - ▶ Decision points required