

**From:** Michael Kennedy  
**To:** [Carter, Paul](#)  
**Cc:** [David Steele](#)  
**Subject:** Muskrat Falls  
**Date:** Sunday, December 11, 2016 9:18:00 PM  
**Attachments:** [Gov NL Brief 28sep16\\_TC \(004\) Rev for Gov 11dec16.pdf](#)  
[image001.gif](#)

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Hi Paul. As discussed, please find attached deck briefly reviewed last week during our meeting. Mike



**Michael Kennedy** | Partner\* | Canada Infrastructure Advisory Leader

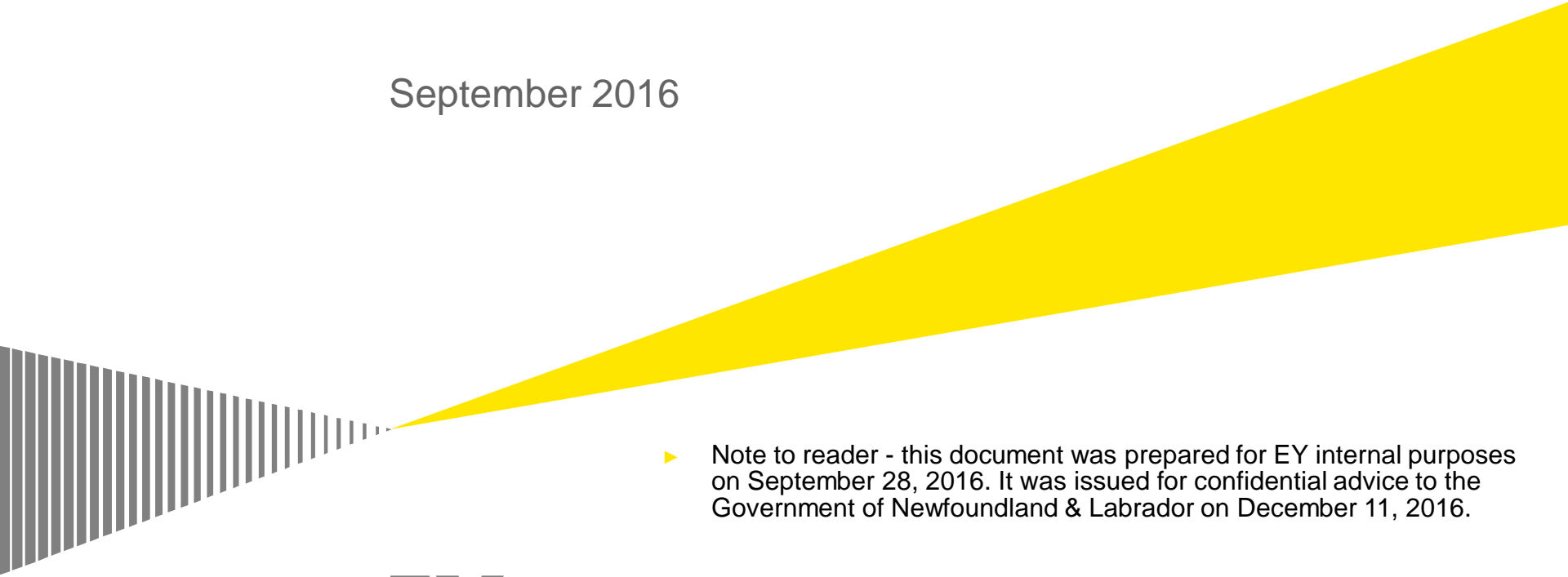
Ernst & Young LLP  
700 West Georgia Street, Vancouver, British Columbia V7Y 1C7, Canada  
Office: 604 648 3843 | Cell: 778 773 2560 | [michael.kennedy@ca.ey.com](mailto:michael.kennedy@ca.ey.com)  
EA: Vangie Johnson | Phone: 604 648 3642 | [vangie.johnson@ca.ey.com](mailto:vangie.johnson@ca.ey.com)  
[www.ey.com](http://www.ey.com)

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*\*Michael Kennedy is an incorporated limited partner of Ernst & Young L.P. which provides services to Ernst & Young LLP.*

# Discussion notes for briefing with NL Govt re Muskrat Falls Project

September 2016

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- ▶ Note to reader - this document was prepared for EY internal purposes on September 28, 2016. It was issued for confidential advice to the Government of Newfoundland & Labrador on December 11, 2016.

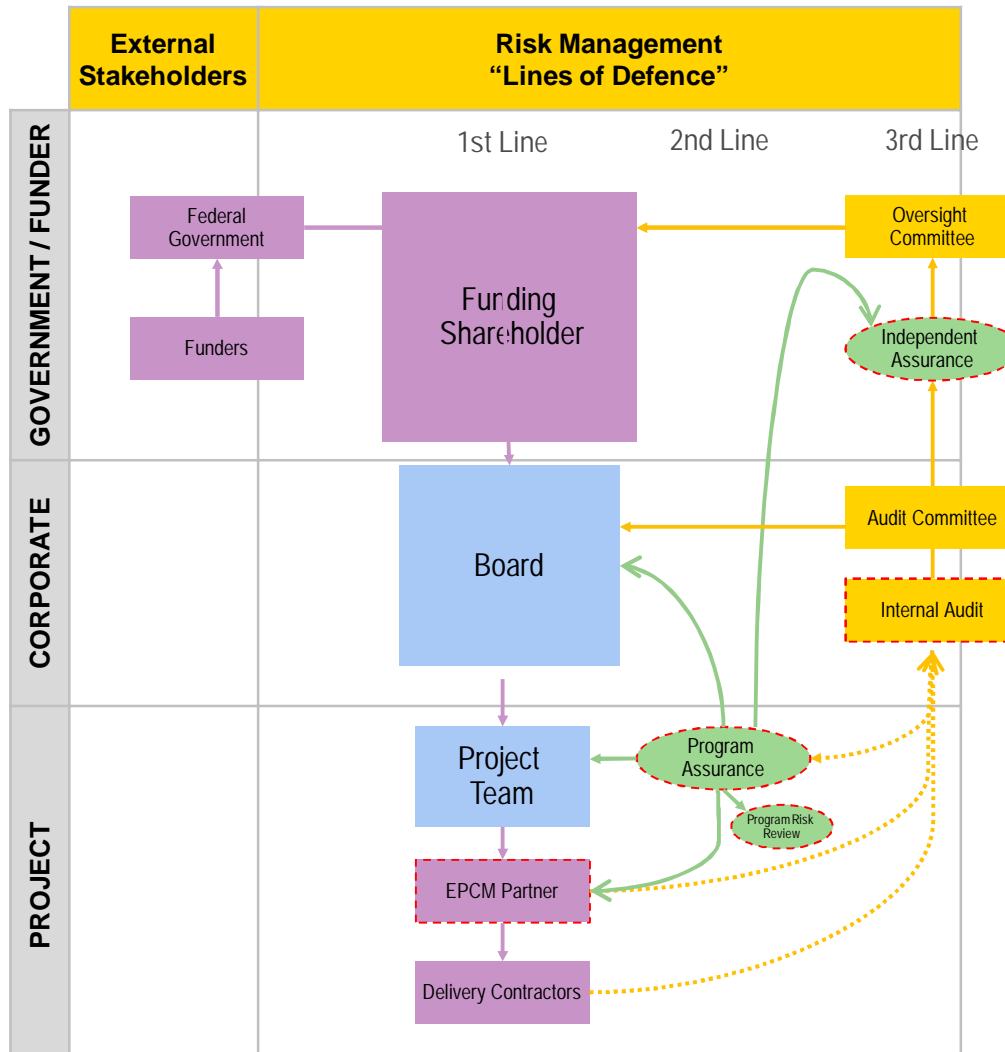
# Some key messages for government

CIMFP Exhibit P-03386

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1. No-one outside of Nalcor, has been involved in reviewing the Muskrat Falls project since March 2016, including the revised cost / schedule estimate of July 2016. Govt oversight committee has not reported formally since December 2015.
2. Nalcor has replaced the CEO, *and whilst the project has been reorganised into two units, the core project leadership team remains the same.*
3. *Astaldi Civil Works – following EY’s critical review an intervention, there has been an interim agreement with Astaldi and presumably ongoing negotiations for completion of the Astaldi scope and the knock on impacts to other major contracts. It is unclear whether there is transparency of Astaldi performance and oversight on Nalcor’s management and mitigation of the most material risks to the entire programme.*
4. *Status of findings / recommendations from EY interim report of March 2016 are unclear (see appended), although there is not much evidence they are being progressed. One of the clear themes was for transparent, open and independent review of project cost, schedule and risk outcomes.*
5. Timing – opportunity now Oct – Dec 2016 to complete a further report and assess Astaldi contract position. Delay to Q1 2017 would be over 12 months since new Govt in NL assuming office.
6. *Logic to continue to wait to deliver a report should be reviewed given the time elapsed. This is counter to EY’s recommendations on strengthening oversight to which GNL committed. The case for an ongoing independent assurance role going forward (as described overleaf) should be examined. This is not just global “best” practice, its “normal” practice for major infrastructure projects.*
7. EY has a largely Canadian team available to continue the work and is conscious of the cost optics of our work. EY and Nalcor must complete this review in collaborative / open manner.

# Independent Assurance



### 3 Lines Definition

- ▶ The '1st Line' is accountable and responsible for delivering the project. (Make decisions that influence the project outcome)
- ▶ The '2nd Line' is provided by the program assurance function which looks at both performance and risk management, and reports into management
- ▶ The '3rd line' of defence is Audit. Both internal and external auditors regularly review both the program frontline and the assurance functions, and ensure they are operating effectively

- Extended Enterprise
- 1st Line of Defence
- 2nd Line of Defence
- 3rd Line of Defence

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# April 2016 Interim report: Key findings

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- ▶ Overall conclusion that September 2015 Forecast of schedule and cost was **not reasonable**, because:
  - ▶ Muskrat Falls Generation (“MFG”) contract for civil construction (Astaldi) was significantly behind schedule and consequences not reflected in September 2015 Forecast
  - ▶ Current contingency level representing 4.7% of cost to complete, or 2.3% of total cost, was very low for stage of completion of Project - **significant amount of physical construction work still to do, followed by commissioning and integration**
  - ▶ Risk of multiple month delay to completion of the HVdc transmission line contract as a result of delivery challenges to date and future risks, where full mitigation may not be possible
- ▶ Additional key findings:
  - ▶ Project risks, whilst identified, are not systematically evaluated and reflected in the financial and schedule forecast
  - ▶ Governance and reporting have not been effective in respect of the Project’s cost and schedule forecast

# April 2016 Interim report: Key recommendations

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1. Project should revise its planning and forecasting processes to explicitly include regular reporting of a fully risk-adjusted final forecast of cost and schedule
2. Project contingency should include allowances for all risks, including strategic, and be prepared on a more conservative basis, based on a thorough risk assessment
3. Sufficiency of Project contingency should be reviewed quarterly in light of emerging risks, effectiveness of mitigation plans and the likelihood of risks crystallizing
4. Project contingency should be separated into an amount to be managed by the Project team and an amount to be managed at a higher level of governance
5. Project governance and independent oversight should be re-evaluated and strengthened at the Project, Nalcor Board and Provincial Government levels
6. Project reporting should be enhanced to support senior management focus on key risks and issues, to communicate more clearly how key risks are reflected in the forecast and to enable more effective Provincial Government oversight