From: Carter, Paul
To: <u>David Steele</u>

Subject: FW: Comments on EY

Date: Wednesday, August 30, 2017 3:16:11 PM
Attachments: comments on EY 29-Aug-2017.pdf

David see comments from Nalcor.

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From: StevePellerin@lowerchurchillproject.ca [mailto:StevePellerin@lowerchurchillproject.ca]

Sent: Wednesday, August 30, 2017 3:02 PM

To: Carter, Paul

Subject: Comments on EY

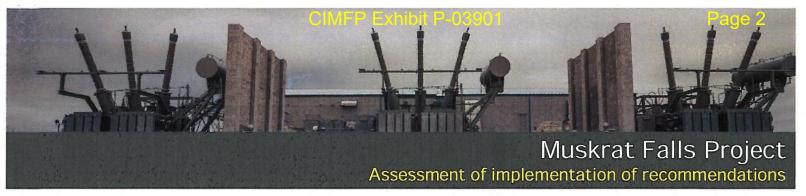
A few comments on the EY report......

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- Additional Risk 1 is outside the control of the Project Team but may be influenced and mitigated by the actions of government. Additional Risks 2 and 3 are largely dependent on the actions and directives of government.
- On the understanding that the Additional Risks have been clearly communicated by the Project Team to the OC, the Nalcor Board and the Provincial Government, and that it is known that the realization of any of the Additional Risks would be additive to the June 2017 Forecast, EY considers the treatment of the Additional Risks to be reasonable.

Recommendation 2: "the Project contingency should make appropriate allowances for all risks, including strategic, at a confidence level reflecting stakeholders' required cost certainty. EY recommends that consideration be given to the use of a more conservative confidence level for setting Project contingency, based on a thorough risk assessment"

- EY observed substantial progress against this recommendation.
- The Project has changed its confidence level for cost estimates from P(50) to a more conservative P(75).
- Tactical and strategic risks identified by the Project Team, other than the Additional Risks, are now quantified in terms of contingency allowances and are incorporated into the June 2017 Forecast.

Recommendation 3: "the sufficiency of the Project contingency should be reviewed quarterly to assess whether it appropriately covers all risks, taking account of the effectiveness of mitigation plans and the likelihood of risks crystallizing"

- EY observed a greater degree of diligence in the Project Team's assessment of risk and the inclusion of risk contingencies in monthly forecasts.
 - The Project does not formally review Project contingency on a quarterly basis.

Recommendation 4: "there should be separation of the Project contingency into an amount to be managed by the Project Team and an amount to be managed at a higher level of governance"

- EY observed substantial progress against this recommendation.
- Risks managed by the Project Team are quantified in terms of contingency allowances and are incorporated into the June 2017 Forecast.
- Nalcor has identified certain Additional Risks which are not included in the June 2017
 Forecast. Nalcor has communicated the Additional Risks to the OC.

Recommendation 5: "Project governance and independent oversight should be re-evaluated by the Provincial Government and strengthened at the Project, Nalcor Board and Provincial Government levels"

Muskrat Falls Project Assessment of implementation of recommendations

3.2 The scope of the Project has remained consistent throughout the delivery phase. There have been no major changes in scope since the issuance of the Interim Report in April 2016.

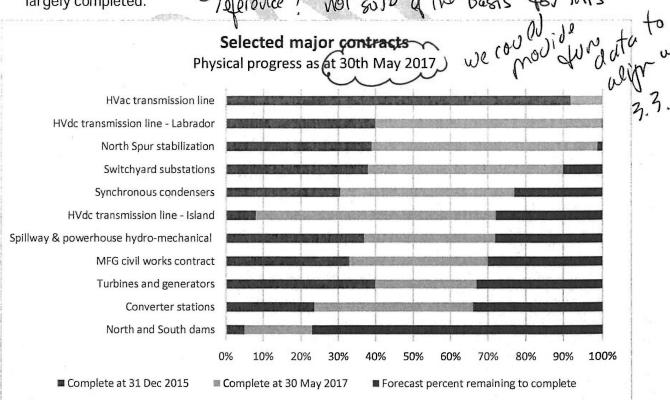
Progress to date

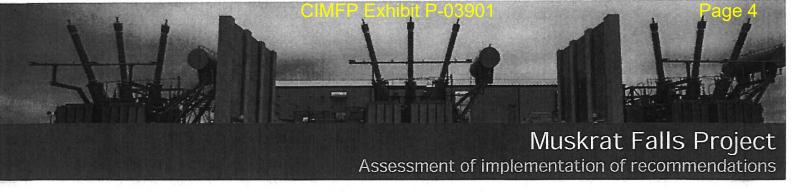
3.3 The Project Team does not report an overall progress percentage encompassing engineering/procurement/construction and commissioning. The main progress metric used is "overall construction/commissioning progress" which the Project Team reported as 78% for the June 2017 reporting cycle as set out in the table below.

	MFG AFE5	LITL AFE4	LTA AFE4	Muskrat Falls Project
Planned Progress	68.1%	87.1%	99.8%	79.5%
Earned Progress	68.7%	83.8%	95.8%	78.0%

As at June 2017 Reporting Period

3.4 The Project Team reports that the Project is currently progressing at a rate of approximately 2.5% - 3.0% per month and expects this to taper off slightly after December 2017, when the bulk of the powerhouse and intake structure scopes are forecast to be largely completed.





Current forecast to complete - schedule

3.8 The Project Team is currently reporting the following key milestones for the Project:

Milestone description	Date at project sanction (DG3)	Re-baseline planned June 2016 (Generation AFE4/ Transmission AFE3	Re-baseline planned June 2017 (Generation AFE5/ Transmission AFE4)	Forecast June 2017		
Project sanction	17 Dec 2012	17 Dec 2012	17 Dec 2012	17 Dec 2012		
Major transmission milestones						
Ready for power transmission (LTA)	31 May 2017	31 Oct 2017	31 Dec 2018	11 Dec 2018 7		
1 st power transfer (Pole 1)	N/A	N/A	01 Jul 2018	21 Mar 2018		
Major generation milestones						
First power from Muskrat Falls	30 Dec 2017	02 Aug 2019	02 Nov 2019	To be confirmed		
Full power from Muskrat Falls	22 May 2018	14 May 2020	14 Aug 2020	To be confirmed		

From Project Controls Monthly Review Package, June 2017, "Schedule F" Report