

**From:** lance.darke@[REDACTED]  
**To:** [Paul Harrington](#); [Brian Crawley](#)  
**Subject:** Re: comments  
**Date:** Sunday, June 5, 2016 2:37:11 PM  
**Attachments:** [Stan letter.docx](#)

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My thoughts on top of Brian's

To Stan Marshall

From Paul Harrington

Date 4 June 2016

Subject Serious Concerns

Stan

I am writing to you in my current capacity and duty as the Lower Churchill Project Director. I feel compelled to provide you with my opinion and offer assistance on some serious matters that can negatively impact the completion of the Lower Churchill Project. I am sending you this note based on my 35 years of experience in Construction of major projects in an Owners Project Management team and I do so with the utmost respect.

I would like to begin by stating the Project Management Team respects you and your track record in the private sector of which the bulk of our team comes from. I know the team We are dedicated prepared to working with you to deliver the project, and understand that you may want to move forward with a different approach in some areas. Myself and the team We will support you with the highest degrees of professionalism and want to ensure we do so in a way that minimizes risk to the project. Based on what I know of the changes you are proposing, I believe there are some inherent risks, and would like to discuss with you how those risks can be managed while at the same time supporting your stated objectives for moving forward.

I also wish to make clear that I and the project team are dedicated professionals who are 100% committed to this project. We accept that the new Government and you have an opinion on the economics of the project and fully respect your right and need to voice that opinion. We take no issue with that. I would like to note, however, that the project team's job at sanction was to produce a range of estimates using a defined external risk assessment process. The outcome of this process was shared with decision makers and has subsequently been reviewed by third parties such as the Independent Engineer and EY such as the Board and Government. Decision makers They interpreted this data and took a very aggressive approach to costs for reasons which have been well published. It is not our intention to comment on that, but I do wish to say that the Project Management Teams should not bear the brunt of criticism associated with decisions made by others. This certainly has become the case in recent public dialogue. The Project Management Team's job is that of execution once the decision to sanction was made. While there are issues that we have already shared with you, project risks are well defined and being managed. Construction is currently proceeding at an expected rate despite some challenges and is within the range of cost and schedule estimates that were put forward at sanctioning.

I would like to expand on the comments offered above, and offer thoughts on the implications of recent public commentary. The morale of the Project team has been seriously damaged by critical statements in the public forum from Government and leadership. The Project Team has endured much criticism for many years by critics of the Project, much of this criticism has been personal and Gilbert Bennett has

been the target of most of these personal attacks and recently we have seen those attacks and criticisms being directed at the Project Management Team. The Project Team were able to withstand the negative statements ~~in the media and by persons and groups using social media~~ because they had the support of Government and Nalcor Leadership. They now feel abandoned ~~by Government and Leadership~~ and feel that they are being painted as scapegoats for the decisions that were made ~~outside their control by previous administrations~~. For example ~~with regards to~~ the project schedule at Project Sanction, the quantitative risk analysis (QRA) that was carried out on the Project schedule resulted in a P75 of 79 months from Project Sanction to First Power. ~~The recently completed QRA resulted in the same result, a P75 of 79 months from Project Sanction to First Power.~~ However the direction that was provided to the Project Team ~~with the full consent of the Board and Government~~ was to set a very aggressive schedule with a Target that was recognized as being in the P5 to P10 range. ~~The likely probability of achieving cost and schedule estimates was well communicated to decision makers. s-So the Project team identified the risks to the Project Schedule but was held to an almost impossible probability of achieving the published First Power date. So It is our assertion that~~ the criticism ~~made by some~~ that the Project Team failed to manage the schedule is an unreasonable accusation based on the data available. ( see Appendix 1) ~~The inherent nature of mega projects unfortunately means there will be issues, especially one of such a public nature. The teams goal and job is to minimize those within their control, which third party analysis shows has been done. However, even more importantly, it is the function of the team to manage the inevitable issues that arise outside the teams control such as market pricing impacts and having to turn around Astaldi performance. Of which, these two items account for the bulk of cost and schedule impacts to the project. It has taken considerable effort to overcome the many hurdles to getting acceptable production and now that we are clearly on the right path the team and I want to ensure we minimize further challenges.~~

The Project Management team consists of many talented Newfoundlanders and Labradorians ( approximately 85 to 90%of the total team) ~~with hundred's of years of combined mega project experience, experienced and~~ very committed engineers, project managers and specialists in all disciplines and functions who are performing to the very best of their ability and are achieving many successes, however they are also being held responsible for matters which are clearly outside of their control and jurisdiction. It is unfair for them to be vilified and criticized for ~~simply doing their job~~ ~~decisions they did not make. T-~~they need to be encouraged and supported rather than ~~undermined and castigated~~ ~~have their credibility challenged.~~

The Integrated Project Management team has been subject of many reviews, Navigant, Manitoba Hydro International (twice) , the 3 major rating agencies, NRCan , MWH and the Independent Engineer, Independent Project Analysis (IPA) ,and EY who carried out the most recent review. All reviewers have agreed that the Project Management team is well organized, following best practices and is working diligently to complete the Project safely within the approved AFE and Schedule. I understand from some discussion with Gilbert Bennett and John Mac-Isaac that it is your stated intention to break up the integrated team and have two separate and distinct teams reporting respectively to Gilbert Bennett ( Generation) and John Mac Isaac ( LTA/LIL). I ~~fully understand the intent~~ ~~acknowledge your right to do so,~~ ~~and support your desire to focus work in a different way. I do have concerns with the timing of fully~~

implementing these changes and would recommend we do so in a more gradual and phased manner. I respectfully request you consider my concerns regarding the timing of such a change in the Integrated Project Management organization. I am providing these concerns because I feel that the implications, consequences and increased risk to both project cost and schedule may not be fully appreciated. My primary concerns are as follows:

- Impact on organization – I know that a number of key leaders in the Transmission and HVDC project management team will feel that this is a premature change and will have a disruptive effect on the remaining work. There will be attrition of some key leaders, loss of project knowledge and an overall demoralization of the remaining team. Productivity will be impacted and the Contractors will take advantage of the disruption and loss of Project knowledge to file Claims that without that Project Knowledge will be more likely to be successfully prosecuted.
- Increased Risk LIL – the current QRA assumes that the integrated Project Management team is in place until Turnover of the facilities to the Operating entity. In my opinion and based upon my experience in mega project execution, the LIL cost QRA P75 of \$300M will be increased to approximately \$500M and the current QRA P75 schedule of 7 months will be similarly impacted by a further 3 months.
- Increased Risk Generation – the attrition of some key leaders in LIL will cause others in the Team to consider their position and the potential loss of Project knowledge regarding the Astaldi file will be substantial – for example the negotiation with Astaldi in an effort to seek a negotiated settlement will be severely compromised if key players walk. If no negotiated settlement is achieved then the change-out and legal actions will require all our project knowledge and resources

**Commented [BC1]:** This is a very strong comment to make. If I were in his position and heard this and believed it to be true, I would go out and find replacements.

**Commented [BC2]:** Again – this is a very strong statement to make. If I heard this and believed it to be true, I would go out and find replacements

I believe these organizational impacts, disruption and increased cost and schedule risks can be avoided by deferring the break up of the integrated Project Management until the Labrador Island Link is constructed, and turned over to the Operating Entity. That would be a phased implementation ~~16~~ month stay of that decision and allow the work to be finished with the current teams with minimum disruption. I fully agree with the Transmission /Generation split post project and feel that the emphasis needs to be placed on the readiness of the operating entity to take over the LIL assets because Operations are currently not organized and prepared for the addition of 1600 kms of transmission, three major switchyards and a completely new HVDC technology.

**Commented [BC3]:** Is it possible to do this in a slightly more phased approach? I agree doing it now isn't prudent, but waiting 16 months to commence change likely won't be palatable. This comes across as disruptive and not reasonable

I also feel duty bound to share some relevant facts regarding SNC –L and the reasons why we were obliged to move to the Integrated Project management model in 2012. To put it bluntly SNC-L did not perform, significantly increased the number of hours above and beyond??? that they bid ~~for~~ and upon which they were awarded the EPCM contract, were not aligned with Nalcor and were deficient in almost all aspects other than Engineering. If we had not taken the steps we had with SNC-L we would not have had the access road completed to the site, we would not have had the Camp available and the mass excavation would not have been completed on time. We will provide you with a comprehensive report of the issues we faced with SLI and their failures that led to our decision to move to the integrated Project Management model. It is also worth noting that the Independent Engineer (IE) and Canada fully endorsed the decision to move to the Project management model we currently follow and may even

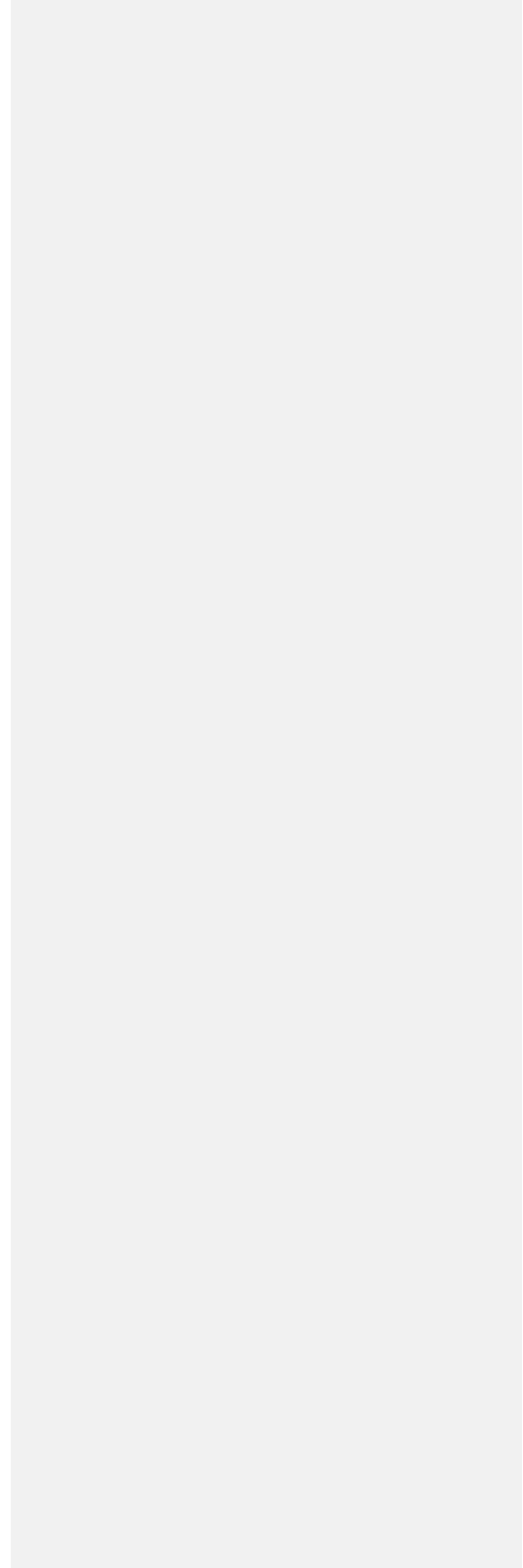
~~raise that with you during the meetings in Ottawa.~~ Independent Project Analysis (IPA) carried out a mid project review in December 2015 and the Project Management team scored highly in Project Team effectiveness ( see Appendix 2). IPA also noted that the Project Team is following best practices and they consider an integrated Project management team as being the most effective way to manage large complex projects. It is for the above noted reasons that the inclusion of SNC-L in the review being carried out by John MacIsaac and his team is causing great concern within the Project team who lived through the period where SNC –L basically let the Project down and caused much friction and resentment . One of the SNC-L team who is part of their review team was dismissed by the Project Manager for the HVdc team and consequently his presence back on the Project is ~~not appreciated~~ is very disruptive.

In conclusion ~~I would like to reiterate that the Project team and I are fully cognisant of and respect the challenges Nalcor and the province face. It is with this knowledge and our detailed understanding of the project that we wish to offer our full support toward working together to successfully and safely deliver the project. prepared to work with you to successfully and safely deliver the project.~~ I hope I have clearly articulated my concerns and trust you receive them in the honest and sincere manner in which they are being delivered. The uncertainty of the last six months has added considerable risk to the project, the inability to make a decision on the Astaldi situation being a prime example. It is critical we move beyond this and focus on a clear path to completion. The Project team has faced many challenges and ~~has~~ we overcome each and every one because we had the confidence of Nalcor leadership. I have persevered through the many Project adversities because I have a great team reporting to me of dedicated professionals. I hope the information provided here is helpful and we have your confidence and support to finish what we started as a team and trust that I can speak openly to you on important matters such as these. I know that your days are full and I have taken the step of writing to you in anticipation of a face to face meeting at some time at your convenience to discuss these matters further .

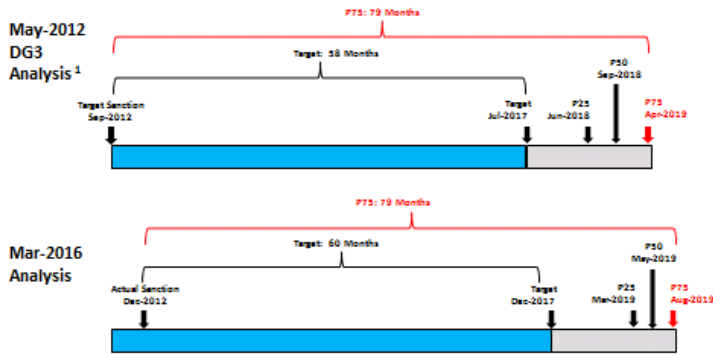
Regards

Paul Harrington

Appendix 1

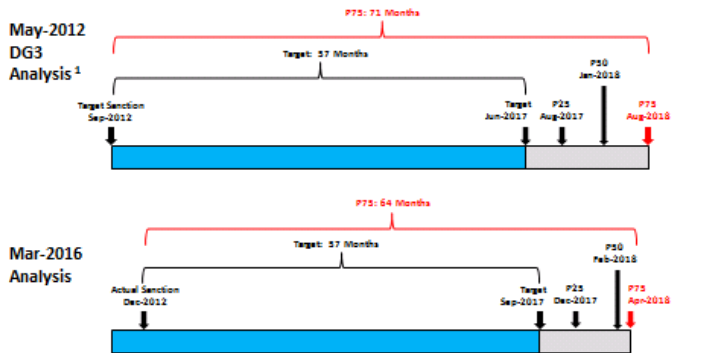


### Muskkrat Falls First Power Duration Mirrors our 2012 Projections



<sup>1</sup> Source: Decision 5618 Project Deferral Schedule Risk Analysis Report, Document No. LCP-PR-80-0001-1-000001

### Effective Management successfully reduced LTA – LITL First Power Transfer by 7 Months



<sup>1</sup> Source: Decision 5618 Project Deferral Schedule Risk Analysis Report, Document No. LCP-PR-80-0001-1-000001



**Mid-Execution Assessment  
Nalcor Lower Churchill Project**

**Presented to Lower Churchill Project Team  
Félix Parodi and Lucas Milrod  
December 2015**