

**Lower Churchill Management Corporation**

Lower Churchill Project Operations Office

350 Torbay Road, Suite 2

St. John's, NL Canada A1A 4E1

LTR-CD0502001-0299  
LTR-CD0502-LTCLILLP-AG-0177

18-Feb-2016

Mr. Thierry Martin  
Project Director  
ALSTOM GRID CANADA ULC  
1400 Industrielle, Suite 100  
La Prairie, Quebec  
J5R 2E5

**Subject: Schedule Workshop Concerns and Next Steps**  
**Ref: LTR-CD0501-LILLP-AG-0198 / LTR-CD0502-LTCLILLP-AG-0167**  
**LTR-CD0501-LILLP-AG-0201 / LTR-CD0502-LTCLILLP-AG-0169**

Dear Mr. Martin,

As previously communicated, Company continues to have serious concerns regarding the CD0501 and CD0502 schedules and with Contractor's ability to effectively manage and deliver the Project.

As outlined in letters to Contractor (LTR-CD0501-LILLP-AG-0198 / LTR-CD0502-LTCLILLP-AG-0167- Schedule Concerns and Planning Workshop, dated 22-Jan-2016) specific actions were agreed between Company and Contractor Planning Teams during planning review meetings held in Contractor's St. John's Office on 19-21-Jan-2016. It was expected and agreed that Contractor would immediately make every effort to resolve noted issues, for the January schedule update, with particular focus on those issues related to schedule logic and activity durations. It was agreed that Contractor would produce and present to Company a schedule that was both valid and achievable at a workshop to be scheduled and held in St. John's.

At the meeting held at Contractor's La Prairie office on 27-Jan-2016 (LTR-CD0501-LILLP-AG-0201 / LTR-CD0502-LTCLILLP-AG-0169 - Contractor Performance and Summary of Meeting held on 27-Jan-2016, dated 03-Feb-2016), it was clearly stated that Company required immediate action by Contractor to address identified issues and improve performance. Contractor was to promptly demonstrate improvement through the correction of specific issues identified during the meeting related to such things as planning, scheduling, and overall, project management. It was agreed to hold the schedule presentation workshop in St. John's during the week of 09-Feb-2016.

Many members of Contractor's team travelled to St. John's for the schedule workshop, to be held on Wednesday and Thursday 10 & 11-Feb-2016, and Company also made arrangements for its team members to be in attendance. However, late day on Tuesday, 09-Feb-2016, Contractor contacted Company requesting that the workshop be postponed for 1 week, to allow extra time for Contractor to prepare. Company insisted that a 'scaled back' workshop proceed on 10-Feb-2016,

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with a limited number of participants, to at least have some discussion about the schedule, and to advance the process. Following the meeting, Company sent an email to Contractor (attached) to more specifically outline its expectations for the workshop the following week.

On Wednesday, 17-Feb-2016, the first day of the planned 2-day workshop proceeded with both Company and Contractor personnel present. After just 4 hours of discussion, it was apparent that the schedule is still not valid, reliable or achievable and there is still clear evidence of the continued lack of awareness by Contractor senior management of the schedule issues. It remains clear that the critical path and subcritical paths, and priorities, cannot be validated in the current schedule.

In the interest of the Project, and to protect Company's interests, Company has offered to provide its resources to assist Contractor in resolving Contractor's schedule issues and to provide Contractor with suggestions regarding standard industry practices for project planning. Contractor has agreed that this assistance is welcomed. It was also agreed that Company and Contractor will start the process by holding working sessions starting on 18-Feb-2016.

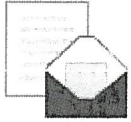
Please feel free to contact the undersigned if you wish to discuss this matter further.

Regards,



Darren DeBourke, P.Eng.  
Project Manager, HVdc Specialties

c.c.	Trina Troke (LCMC)	Tanya Power (LCMC)	Kenza Arab (AG)
	Mark Ellis (LCMC)	Ray Butler (LCMC)	Antoine Tabet (AG)
	(TS) Anthony Jackman (LCMC)	Cyrille Boussuge (AG)	Claude Mandeville (AG)
	Ken Almon (LCMC)	Olivier Ruiz (AG)	Stephen Hall (AG)
	Pierre Sasseville (LCMC)	Daniel De Blois (AG)	



**Fw: Workshop Objectives and Agenda**  
**Darren Debourke** to: MARTIN Thierry  
Cc: Trina Troke, Tanya Power

02/11/2016 05:08 PM

Thierry,

Please see attached Objective/Agenda for next weeks schedule workshop.

I will also send via Aconex.



Workshop Objective and Agenda.docx

Let me know if you have any questions.

Regards,

**Darren DeBourke**

**Project Manager - HVdc Specialties**

**PROJECT DELIVERY TEAM**

**Lower Churchill Project**

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**Workshop Objective:** Alstom to demonstrate to Company that the forecast schedules for CD0501 and CD0502 are valid and achievable.

Demonstration of Schedule Validity:

- Review of P6 native files for CD0501 and CD0502 (native files to be submitted by end of business the day before Workshop):
  - Confirm no open activities (ie. no successor)
  - Review # of activities with total float > 100 days
  - Review and confirm validity of critical path for each facility/site
  - Demonstrate that engineering, procurement and construction activities are all appropriately linked
  - Present current forecast date for completion of static commissioning of all facilities/sites
  
- Review of schedule inputs:
  - What is the basis of durations for all activities with respect to Calendars in the schedule? For engineering, 5 days/week, 8 hours/day? Procurement? Construction? Commissioning?
  - Commissioning – provide source of logic and durations for commissioning. Provide date of finalization of detailed commissioning schedule.
  - Construction – provide source of logic and durations for construction at each site; both for Civil Works and Electromechanical installation. Which durations have been confirmed by a Contractor/Bidder; which durations are from assumptions made by Construction Manager. How does the schedule account for winter work? Confirmation that Construction Manager has reviewed and agrees with schedule
  - Procurement – provide source of durations from purchase order placement to site delivery. What is the % of equipment manufacturing durations that are not yet confirmed by preferred vendor? Has logistics confirmed any impact on transport due to time of year? Confirmation that Procurement Manager has reviewed and agrees with schedule.
  - Engineering – provide source of logic and durations. Has input been provided by Engineering Leads and Subcontractors? How have the durations been confirmed (ie. level of effort to produce deliverables, time for review by Company, incorporation of comments by Alstom, etc.) Confirmation that Engineering Manager has reviewed and agrees with schedule.

## Demonstration of Schedule Achievability

- Construction (CD0501 and CD0502)
  - Presentation of sequence of construction activities at each Site. To include both Civil Works and Electromechanical Installation. Present dates and durations for required outages?
  - Strategy and award dates for all remaining civil works packages and electromechanical installation package
  - Plan to improve progress rate of civil works construction (no dates met to date; monthly progress very low)
  - How has any rework been reflected in the schedule (ie. replacement of temporary backfill, GIS foundations, etc)
  - Summary schedule showing dates of execution for all packages (by Site)
  - Resource curves (by Site)
  - Risks and planned mitigation measures (by Site)
  
- Procurement (CD0501 and CD0502)
  - Presentation of number of packages to be awarded each month (to include float for each award date). Identification of all critical packages.
  - Review of procurement dashboard (live) to ensure it is aligned with P6 schedule (live).
    - Check that all forecast issue of PO dates are aligned with the master schedule
    - Check that required on site dates are aligned with the master schedule and how much float has been allowed for each package.
    - Check that engineering input to procurement dates are aligned with the master schedule and how much float has been allowed for each package?
    - What is the process to ensure the procurement dashboard and schedule remain aligned.
  - How has the CARE process (quality) been accounted for in the schedule?
  - How schedule will be met? Required resources to meet the dates above (resource curve, level of effort) and demonstrate that Alstom staffing levels for both award of packages and monitoring of vendors meets the requirements.
  - Commitment to facilitate regular reviews of the procurement dashboard with Company.
  - Risks and planned mitigation measures for award, manufacturing and logistics.
  
- Engineering (CD0501 and CD0502)
  - Confirmation of deliverables status (total # of documents to be issued, how many issued, how many Code 01)
  - Review MDL / SDRL (live) which reflects current requirements and shows forecast dates for all deliverables (first issue/revision and Code 01) to meet the required dates by procurement and construction.
  - How schedule will be met? Required resources to meet the dates above (resource curve, level of effort) and demonstrate that Alstom staffing meets the resource requirements.

What changes are being made to improve the duration of deliverables turnaround. How will the Holds Register be cleared and how has this effort been included in the schedule?

- Risks and planned mitigation measures
  
- Overall Schedule (CD0501 and CD0502)
  - Review of # of activities within 30 days of the critical path (live P6 schedule)
  - Review of 90-day lookahead (live P6 schedule)
  - What mitigation measures are being investigated to bring the forecast date back in alignment with the Contractual requirements