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Subject: Approval of PCN-0630 - CD0501/CD0502 - Civil Contracting Strategy Change and Resolution of Other Outstanding Major Change Orders
Date: Tuesday, May 3, 2016 9:20:41 PM
Attachments: [.png](#)
[PCNActionLogActioneeReportRPT.pdf](#)

Project Change Notice (PCN) Description:

This PCN is to confirm approval of the changes negotiated and agreed between LCP and GE/Alstom with respect to Contract Agreements CD0501-001 - Converters and Transition Compounds and CD0502-001 - ac Switchyards. No contingency funds are required; however, budget transfers will be required between several C3 commitment packages and from the XD0001 - C3 Estimated Growth package. In addition, a 45-day (calendar) grace period will be granted for all Milestone Dates for the noted Contract Agreements before Liquidated Damages applies.

The following changes have been agreed:

Impacts on the CD0501 Contract:

Addition of Structured Cabling (CD0501-001)

This option was included in the Contract Agreement and budget secured through PCN-0339 (Approved September 2014) for the Not to Exceed (NTE) price of \$300,000. Subsequently, GE/Alstom indicted to Company that their estimated cost impact was greater than the NTE price and there would be a schedule impact. This option is now settled and a Change Order will be issued for \$300,000, with no impact on schedule.

Addition of Lockable Visible Break (CD0501-001)

This option was included in the Contract Agreement and was raised through DAN-0863 shortly after finalization of the Contract award with GE/Alstom for CD0501-001. A Not to Exceed price of \$626,000 was agreed with GE/Alstom and was included as an optional line item in the Contract Agreement. However, this scope is not optional. It is a technical requirement. While the technical solution had been agreed, a commercial agreement had not yet been reached. A Change Request was received from GE/Alstom in February 2015 with a cost impact of \$634,000; however, was put on hold as GE/Alstom indicated their estimate of cost impact was greater than submitted. This is now settled and a Change Order will be issued for \$626,000, with no impact on schedule.

Addition of Arc Flash Requirements to Cat 2 (CD0501-001)

This option was included in the Contract Agreement and was approved and budget secured as per PCN-0315 (approved September 2014); however, a commercial agreement with GE/Alstom had not been reached. A Not to Exceed price of \$226,000 was agreed with GE/Alstom and was included as an optional line item in the Contract Agreement. A Change Request was received from GE/Alstom in January 2015 for \$281,000; however, was put on hold as GE/Alstom indicated their estimate of cost impact was greater than submitted and there would be a schedule impact. This option is now settled and a Change Order will be issued for \$226,000, with no impact on schedule.

Change in AC Filter Design (CD0501-001)

This change was approved and \$5M budget secured as per PCN-0538 (approved November 2015). At the time of PCN approval, a Change Request had not been received from GE/Alstom. However, a Change Order for the \$5M was issued to secure the purchasing of the material (which was on the critical path of the CD0501 schedule). In December 2015, GE/Alstom presented their estimated cost and schedule impacts for this change as \$25.5M with an 18 week delay. LCP's initial evaluation of the estimated impact was between \$10-\$15M with a 0 to 11 week delay. This Change Request is now settled and a Change Order will be issued for an additional \$8M (total of \$13M including the \$5M CHO already issued). In addition, an amendment to Exhibit 2 will be issued which will include a 45-day (calendar) grace period before Liquidated Damages will apply to reduce GE/Alstom indirect cost exposure. The Milestone Date of Static Checks Complete (All Sites) of 15-Jun-2017 included in Exhibit 9 of the Contract will not be changed. As there was significant savings realized through the cost underrun associated with the Layout Changes at MF and SP, sufficient funds are available within XD0001 to cover the additional \$8M in budget required for this Change Order.

Impacts on the CD0502 Contract:

Addition of Structured Cabling (CD0502-001)

Supply and installation of structured cabling for telecoms was not included as part of the Contract Agreement for CD0502-001. As there are a large number of interfaces between the current CD0502-001 scope and the structured cabling scope, including building construction and cable conduits, a Change Request was issued to GE/Alstom's Contract in order to remove any risk of Company causing schedule delays to GE/Alstom. As part of the AFE Rev 2 (refer to approved PCN-0533), budget of \$142,000 (\$108,000 LTA and \$34,000 LITL) was included in XD0001 for this scope. The most recent Change Request received from GE/Alstom estimated a cost impact of \$143,000; however, this was put on hold as GE indicated their estimate of cost impact was greater than submitted. It was also noted by GE Alstom that the Change Request did not include any estimate of impacts on the Civil Works or impacts on schedule. This Change Request is now settled and a Change Order will be issued for \$130,000, with no impact on Civil Works or schedule. The asset split between LTA

and LITL is now \$89,000 and \$41,000 respectively. The overrun on the LITL will be covered by existing Non-specific growth within XD0001.

Addition of Lockable Visible Break (CD0502-001)

This change was raised through DAN-0863. Two Change Requests were received from GE/Alstom related to lockable visible break for a total cost impact of \$324,000. One CHR is to add a viewing window to each lockable break (disconnect switch) that will be installed on equipment as required by Canadian Electrical Code (CEC) (was not included in Contract price) for a total impact of \$15,116. The other CHR is to include lockable visible break for all low voltage electrical equipment operating over 300 V (not a CEC requirement) for a total impact of \$308,558. It has now been agreed with the LCP TD&I/BTPO groups that the lockable visible break on all low voltage equipment is not required, see Attachment #1 - Correspondence with TD&I/BTPO. This Change Request is now settled and a Change Order will be issued for \$15,116, with no impact on schedule.

Change from Triple Circuit Tower to Buried Cable design at SP Switchyard (CD0502-001)

This change was approved and a budget of \$1.98M was secured as per PCN-0543 (approved December 2015). A Change Order was issued to GE/Alstom with a Not to Exceed price of \$1.9M. Subsequently, a proposal was received from GE/Alstom for \$1.904M. Evaluation by LCP noted mathematical errors in the estimate and the revised offer was calculated to be \$1.68M. Through negotiations, the Buried Cable design was combined with the MF & SP Layout Changes, see below, to arrive at a final cost impact of \$1.98M with no impact on schedule. This Change Request is now settled and a Change Order will be issued for the original budget amount of \$1.98M.

Impacts on both CD0501 & CD0502 Contracts:

Layout Changes at Muskrat Falls (MF) and Soldiers Pond (SP) (CD0501-001 and CD0502-001)

This change was approved and budget secured as per PCN-0577 (approved February 2016). The initial estimated impact submitted by GE/Alstom was \$11M with a 2 month delay on the schedule. Through negotiations, as described in PCN-0577, Change Orders were issued under CD0501-001 and CD0502-001 for a total cost impact of \$0.7M; however, GE/Alstom did not sign these Change Orders as they maintained that there was a schedule impact and further costs associated with engineering inefficiencies.

In order to offset the schedule impact and engineering inefficiencies noted by GE/Alstom, it was negotiated that LCP would issue the full value of the current approved budget of \$1.98M for the Buried Cable Option at the SP Switchyard (replaces Triple Circuit Tower design). This is approximately \$300,000 more than LCP's evaluated price for the change. In addition, the Change Order previously issued (under CD0502-001) to collect \$500,000 in

Liquidated Damages for the removal of two Key Personnel without proper notification to Company will be cancelled. GE/Alstom has now agreed to sign the issued Change Orders for the Layout Changes which notes a total impact of \$0.7M with no impact on schedule.

Civil Contracting Strategy Change

As per PCN-0258 (approved June 2014) and PCN-0307 (approved August 2014) the Civil Works for the Converter Stations and ac Substations was removed from the CD0501 and CD0502 Contract Agreements and a new package CD0504 was created. GE/Alstom reduced their overhead and profit fee by 15% on the Civil Works scope for a total savings to LCP of approximately \$27M. As described in Exhibit 17 of the CD0501 and CD0502 Agreements, GE/Alstom would still manage the subcontractors completing the Civil Works; however these agreements would be through LCP Contracts. This Civil Works scope was to be awarded through a joint process between GE/Alstom and LCP in order to ensure the best pricing possible. In addition, the budget set for this scope was a Contract upset limit and any overrun would be the responsibility of GE/Alstom. Any savings against this budget would be shared between GE/Alstom and LCP.

To date approximately, \$100M of the total \$180M scope has been awarded. It is now clear that there will not be any savings, current or future, against the original baseline budget set and continuing to award the rest of the Civil Works scope through the LCP Procurement process will only increase schedule risk. It has been agreed between GE/Alstom and LCP that the remainder of the Civil Works scope (Packages 3, 4, and 5) will be transferred back to CD0501 and CD0502 as Lump Sums.

GE/Alstom requested to recover 5% of their overhead and profit fee which is valued at \$4M; however, they have agreed to accept a 45-day (calendar) grace period before Liquidated Damages apply against Contract Milestone dates for all Sites in lieu. This grace period will be implemented as described above through the Change in AC Filter Design. Note that the existing Contracts, CD0504-001 and CD0504-002 will remain between LCP and the Civil Works Contractors. It has been agreed that no new scope will be added to these contracts from Packages 3, 4, and 5 and that any Change Orders issued under these Contracts (that is within the original Civil Works Baseline Budget) will be charged against CD0501 and / or CD0502. Refer to PCN-0632 for details on the strategy relating to budget transfers for the CD0504-001 and CD0504-002 contracts.

In summary, GE/Alstom's initial offer for all the changes described above was \$44M with a 186 day schedule impact. Negotiations resulted in a total impact of \$17M with no change in Contractual Milestone dates; however, a 45-day (calendar) grace period before Liquidated Damages will apply at all Sites, see Attachment #2 - Summary of Negotiations. The Contractors limit of liability on Liquidated Damages payable to LCP in each of the CD0501 and CD0502 Contract Agreements remains unchanged.

[This notice is to advise that this PCN is now approved for implementation. Attached is the](#)

current report from the change management system indicating actions required to implement this change.

It is being sent to those currently identified as responsible for the those actions and copied to those indicated in the distribution section.

Please complete actions as identified and report to me when this has been done. If an action is improperly described or reported incorrectly against you please advise of any correction and I will make the required adjustments.

Without reporting completion of these actions the PCN cannot be closed.

Thank-you for your attention to this matter.

Action Log:



PCNActionLogActioneeReportRPT.pdf

Kind Regards,

Melissa

Melissa Coombs, P.Eng.

Change and Technical Interface Engineer

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You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

Amanda Batten			
PCN-0630	CD0501/CD0502 - Civil Contracting Strategy Change and Resolution of Other Outstanding Major Change Orders		Approved
	Action:	Create PCN for approval of strategy for all future changes on awarded Civil Works Scope (CD0504-001 and CD0504-002)	Incomplete
	Action:	Ensure commitments are updated for CD0501-001	Incomplete
	Action:	Ensure commitments are updated for CD0502-001	Incomplete
	Action:	Revise Requisition for CD0501-001	Incomplete
	Action:	Revise Requisition for CD0502-001	Incomplete
	Action:	Update Current Control Budget in PM+	Incomplete
Anthony Jackman			
PCN-0630	CD0501/CD0502 - Civil Contracting Strategy Change and Resolution of Other Outstanding Major Change Orders		Approved
	Action:	Issue CHO for Lockable Visible Break to CD0502-001	Incomplete
	Action:	Issue CHO for Structured Cabling to CD0502-001	Incomplete
	Action:	Issue Contract Amendment for Transfer of Civil Works Baseline to CD0502-001	Incomplete
	Action:	Issue revised CHO for Buried Cable Option to CD0502-001	Incomplete
Pierre Sasseville			
PCN-0630	CD0501/CD0502 - Civil Contracting Strategy Change and Resolution of Other Outstanding Major Change Orders		Approved
	Action:	Issue CHO for AC Filter Design Change to CD0501-001	Incomplete
	Action:	Issue CHO for Lockable Visible Break to CD0501-001	Incomplete
	Action:	Issue Contract Amendment for Transfer of Civil Works Baseline to CD0501-001	Incomplete

Total Actions: 13

Report Generated with the following criteria:

Action Status = Incomplete
PCNID Like 630