

Project Change Notice

PCN-0429 Additional 10% of Foundations for HVdc

Section 1: Request for Proposed Change

<p>CM X-Ref. <input type="text" value="DAN-0994"/></p>	<p>Date Originated <input type="text" value="27 Mar 2015"/></p> <p>Originator <input type="text" value="Maria Veitch"/></p> <p>Package Leader / Engineer <input type="text" value="Maria Veitch"/></p> <p>Area Manager <input type="text" value="Keenan Healey"/></p> <p>Scope / Project Manager <input type="text" value="Kumar Kandaswamy"/></p> <p>Current Status <input type="text" value="Under Review"/></p> <p>Revision <input type="text" value="0"/></p> <p>TL 267 Project <input type="checkbox"/></p>
<p>Origin</p> <p><input checked="" type="checkbox"/> Internal PMT <input type="checkbox"/> Contractor/Supplier</p> <p><input type="checkbox"/> Other Nalcor <input type="checkbox"/> Construction Site Event</p> <p><input type="checkbox"/> SNC-Lavalin <input type="checkbox"/> Other External <input type="text"/></p>	

Agreement No.	Description
PT0308-001	Supply of Steel Tower Foundations - 350 kV HVdc

Description

The foundation quantities ordered are an estimate based on a desktop geotechnical study. If geotechnical conditions on site differ than the estimate, a shortage in foundation quantities can occur. This would result in a delay in construction. To avoid this situation, extra foundation material is required. Extra foundation material would be optimized to take advantage of similarities foundations. The quantity of foundation to be procured is approximately 10% of the total contract. Data: there are two sources of information available for foundation selection: a desktop geotech survey and a site recon. Both are currently trending to be only 50% accurate thus the additional of more materials at hand is prudent in order to reduce the risk of a delay claim by the construction contractor. The project proposes to set up a call off to the supplier as trending of needs arise.

Rationale

To allow the project team to better address change without disruption to contractor, procuring an extra 10% of all foundation now will decrease the probability of a shortage causing a delay in construction. Further, this is not really 10% extra for all foundations, but 10% early for some of the foundations depending on the trends. The last quantity release will be used to adjust quantities based on the actual foundation types installed and thus we will reduce the quantities in the last lot if no longer required because we still have some from this 10%.

Benefits

Extra foundations will support construction without delay. Foundation material not required can be used as construction and maintenance spares.

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Section 2: Impact of the Proposed Change to Project

Categorization

- Scope Addition/Deletion
- Scope Modification
- Non-Scope Change

Affected Project Component

- Muskrat Falls Generation
- Labrador Transmission Assets
- Labrador - Island Tx Link
- Maritime Link
- Nalcor PM
- Other

Cost Control Account Summary

Cost Control Account	Description	Estimated Cost
5.4.524.6200.1010.31.00	"LITL Overland DC Transmission (PT0308	\$3,156,517
5.4.990.0000.0699.99.02	LITL Project Contingency	(\$3,156,517)
Total Estimated Cost		\$0

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Direct and Indirect Impact by Change Analysis Team

Basis of Design

Construction

Contracts/Procurement

Cost Control Reviewed By *LOReid* Date Reviewed: *22-May-2015*

There will be an additional cost of \$3,156,517 to this package. This amount will come from LIL contingency. The forecast for the package is \$\$25,844,380 (previous forecast \$22,687,863 + change \$3,156,517).

Design Philosophy

Environment and Regulatory Comp.

Execution Approach

Health & Safety

Operations/Reliability

Property and Lands

Quality

Reputation

Schedule Reviewed By *[Signature]* Date Reviewed: *25-May-2015*

Avoid COSTLY construction delays by providing ADEQUATE Quantities of Materials

Other

Transportation / Shipping: No impact. Current transportation budget is adequate.

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Section 3: Risk Screening

N/A:

Low	Medium	High
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Comments

Risk Pre-Change

With Proposed Change

Change required due to design development and adjustment of foundation quantities to facilitate construction activities without delays (avoid material shortage).

[Signature]

22-MAY-2015

Risk Coordinator

Date

* Reference Project Risk Management Plan for risk screening guidelines.

Risk Pre-Change

	Capital Cost, \$M	Schedule, Mos	Product Quality	People (HS)	Env	Reputation	< 0.1% Rare (1)	0.1% - 1% Low (2)	1% - 50% Possible (3)	50% - 90% Likely (4)	> 90% Almost Certain (5)
Extreme (5)	> 100	> 12	System & safety requirements are not achieved	Single or multiple fatalities	Massive Effect	International media coverage. Irreparable stakeholder impact	5	10	15	20	25
Major (4)	10 - 100	3 - 12	Substantial effect on performance objectives	Serious personal injury resulting in permanent disability	Major Effect	National media coverage. Substantial stakeholder impact	4	8	12	16	20
Moderate (3)	1 - 10	1 - 3	All design and operating margins eliminated	Injury to personnel not resulting in permanent disability	Localized Effect	Regional media coverage. Moderate stakeholder impact	3	6	9	12	15
Minor (2)	0.1 - 1	0.25 - 1	Minor decrease in system performance	Medical treatment of personnel. Lost time incident	Minor Effect	Local media attention. Minor stakeholder impact	2	4	6	12	15
Slight (1)	< 0.1	< 0.25	Slight degradation of element performance	Minor impact on personnel. First aid only. No lost time	Slight Effect	Slight media attention. Little stakeholder impact	1	2	3	4	5

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With Proposed Change

	Capital Cost, \$M	Schedule, Mos	Product Quality	People (HS)	Env	Reputation	< 0.1% Rare (1)	0.1% - 1% Low (2)	1% - 50% Possible (3)	50% - 90% Likely (4)	> 90% Almost Certain (5)
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Section 4: Implementation Plan

Implementation Strategy

Issue Change Order to Locweld.
 Monitor the foundations being installed (this is currently an ongoing process) *-REFERENCE ATTACHMENT 3*
 Obtain more field information on the likely foundations at each location (a pilot program to start late April 2015)
 Order more foundations, if required based on the above
 Reduce (adjust) the last lot as required based on the field informations and the foundation inventory on hand.

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Actions

Action	Actionee	Status
Issue closeout CO to address final foundation needs	Darrell Manning	Incomplete
Monitor and get more field data for foundations required	Keenan Healey	Incomplete
Update budget in PM+ to account for final quantities	Tara Dumaresque Reid	Incomplete
Update commitments in PM+ to account for final quantities	Darrell Manning	Incomplete
Update Current Control Budget in PM+	Tara Dumaresque Reid	Incomplete
Issue CO against contract / PO	D. Manning	Incomplete
Adjust last lot order depending on foundations on hand and foundations required	Maria Veitch	Incomplete

Documents

Name	File Name
Attachment 1	CHR-PT0308001-0013.pdf
Attachment 2	Locweld.CHR-PT0308001-013.pdf
<i>ATTACHMENT 3</i>	<i>FOUNDATION INSTALLATION TEND.</i>
<u>Process References</u>	
CHR-PT0308001-013	

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Section 5: Distribution

- | | |
|---|--|
| <input checked="" type="checkbox"/> Originator | <input checked="" type="checkbox"/> Project Director |
| <input checked="" type="checkbox"/> Package Leader/Engineer | <input type="checkbox"/> System Planning (Nalcor) |
| <input checked="" type="checkbox"/> Area Manager | <input type="checkbox"/> Operations |
| <input checked="" type="checkbox"/> PM - Muskrat Falls Generation | <input type="checkbox"/> MF Site Manager |
| <input checked="" type="checkbox"/> PM - HVdc Specialties and Switchyards | <input type="checkbox"/> Construction Manager |
| <input type="checkbox"/> LILCo Manager | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> PM TL Construction / Execution | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Project Controls Manager | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Supply Chain Manager | <input type="checkbox"/> Other |
| <input type="checkbox"/> HSS & ER Manager | <input type="checkbox"/> Other |
| <input checked="" type="checkbox"/> Quality Manager | <input type="checkbox"/> Other |
| <input type="checkbox"/> Envir. & Regul. Compliance Manager | |
| <input type="checkbox"/> Business Services Manager | |
| <input type="checkbox"/> Ready for Operations (RFO) Manager | |
| <input checked="" type="checkbox"/> Deputy General Project Manager | |
| <input type="checkbox"/> Project Manager SOBI Crossing | |
| <input checked="" type="checkbox"/> General Project Manager | |
| <input type="checkbox"/> Finance Manager | <input checked="" type="checkbox"/> Vice President |

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Section 6: Acceptance Phase

Decision			
<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Rejected/Cancelled	Decision Date	28 MAY 2015
CHANGE CONTROL BOARD APPROVAL			
<input checked="" type="checkbox"/>	<i>[Signature]</i> Scope / Project Manager	<i>25 May 2015</i> (Date)	<input type="checkbox"/> _____ Nalcor System Planning (Date)
<input checked="" type="checkbox"/>	<i>[Signature]</i> Project Controls Manager	<i>22 May 2015</i> (Date)	<input type="checkbox"/> _____ Operations Engineering Lead (Date)
<input checked="" type="checkbox"/>	<i>[Signature]</i> Supply Chain Manager	<i>25 May 2015</i> (Date)	<input checked="" type="checkbox"/> _____ Other Approval 1 (Date)
<input type="checkbox"/>	_____ HSS & ER Manager	_____ (Date)	<input checked="" type="checkbox"/> _____ Other Approval 2 (Date)
<input type="checkbox"/>	_____ Quality Manager	_____ (Date)	<input type="checkbox"/> _____ Other Approval 2 (Date)
<input type="checkbox"/>	_____ Envir. & Regul. Compliance Manager	_____ (Date)	
<input type="checkbox"/>	_____ Business Services Manager	_____ (Date)	
<input type="checkbox"/>	_____ Ready for Operations (RFO) Manager	_____ (Date)	
<input checked="" type="checkbox"/>	<i>[Signature]</i> Deputy General Project Manager	<i>26 MAY 2015</i> (Date)	
<input type="checkbox"/>	_____ Project Manager SOBI Crossing	_____ (Date)	
<input checked="" type="checkbox"/>	<i>[Signature]</i> General Project Manager	<i>26 MAY 2015</i> (Date)	
<input type="checkbox"/>	_____ General Manager Finance	_____ (Date)	<input type="checkbox"/> _____ V.P. - Lower Churchill Project (Date)
<input checked="" type="checkbox"/>	<i>[Signature]</i> Project Director	<i>28 May 2015</i> (Date)	<input type="checkbox"/> _____ CEO & Gatekeeper (Date)

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Section 7: Close-Out

Implementation Status Complete:

Signoff:

Change Management Lead:

Date:

Scope/Project Manager:

Date: