

# **Lower Churchill Project**

Monthly Progress Report

Period Ending: 30-September-2013

Record No: 200-160641-00108

P. Harrington

Project Director - LCP Phase I

**Authorization for Issue** 



Period Ending: 30-Sep-2013

Page: 2 of 83

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Period Ending:	30-Sep-2013
Page:	3 of 83

# **TABLE OF CONTENTS**

		Page No.
SECTION 1.	EXECUTIVE SUMMARY	4
SECTION 2.	HEALTH, SAFETY AND SECURITY	8
SECTION 3.	ENVIRONMENT – REGULATORY COMPLIANCE	12
SECTION 4.	QUALITY ASSURANCE	15
SECTION 5.	SCHEDULE AND COST	20
SECTION 6.	MUSKRAT FALLS GENERATION	30
SECTION 7.	HVDC SPECIALTIES	38
SECTION 8.	OVERLAND TRANMISSION LINES	44
SECTION 9.	STRAIT OF BELLE ISLE (SOBI)	48
SECTION 10.	PROCUREMENT	49
SECTION 11.	OTHER PROJECT ACTIVITIES	52
SECTION 12.	ATTACHMENTS	56



Period Ending:	30-Sep-2013
Page:	4 of 83

## SECTION 1. EXECUTIVE SUMMARY

#### 1.1 SCOPE AND PURPOSE

This report covers the progress and associated cost pertaining to the Lower Churchill Project – Phase I (LCP).
 The scope includes all of the ongoing Engineering, Procurement, Construction and Project Management activities for MF Generation, LTA and LITL.

#### 1.2 HEALTH AND SAFETY PERFORMANCE

- Attended governance meeting with Morneau Shepell and support from Innu Med.
- The Integrated Project Delivery Team reported 74 SWOPs this period for up to date Lead/Lag Ratio of 150:0 against a yearly target of 600:1.
- No Lost Time incidents have been registered during the period.
- Five Near Misses and ten First Aids Leading Indicators were reported during the period.
- No Medical Aids have been registered during the period.
- Eight Property damages have been registered during the period.

#### 1.3 ENVIRONMENTAL AND REGULATORY COMPLIANCE

- Overall performance positive, with daily environmental monitoring continuing. Investigation of remedial measures to address contractor spills on-going.
- Stage 1 Historic resources assessment on the Island Northern Peninsula complete; central portion to be completed by 31-Oct-2013.
- Two regulator visits over the reporting period from DFO and Water Resources with very positive feedback.
- Historic resource recovering program:
  - Recovery continuing at North Spur and South Side Portage Trail.
  - HVac Line cleared; HVdc Labrador to be completed by 15-Oct-2013.

#### 1.4 PROGRESS HIGHLIGHTS

- CH0006 Bulk Excavation: achieved 108,748 m³ of rock excavation in the power house area during the period. Total excavation to date is 587,242 m³ of overburden and 1,680,690 m³ of rock excavation for a total of 2,267,932 m³. Excavation Progress is behind the baseline by approximately 115,745 m³.
- CH0002 Accommodation Complex Buildings: Received approval of the water and sewer design, from the Governments' Environment department with respect to manholes, resulting in a projected savings in excess of \$500K.
- Bids evaluations continuous for the following packages:
  - CH0032 Supply and Install of Powerhouse Hydro-Mechanical Equipment.
  - CH0033 Supply and Install of Powerhouse Cranes.
  - PH0014 Supply of Generator Step-up Transformers.
  - PH0016 Supply of Generator Circuit Breakers.
  - SH0018 Provision of Catering, Housekeeping and Janitorial Services.



Period Ending:	30-Sep-2013
Page :	5 of 83

- SH0022 Provision of Fuel Supply and Dispensing Services (MF).
- CD0501 Supply and Install of Converters and Cable Transition Compounds.
- CD0503-002 Construction of Earthworks at Various Power Distribution Sites.
- PD0537 Supply of Power Transformers at AC Substations.
- SD0564 Provision of Camp Services at CF.
- CT0319 Construction of 315 kV HVac Transmission Line.
- PT0308 Supply of Steel Tower Foundations HVdc Transmission Line.
- PT0328 Supply of Line Conductors HVdc Transmission Line.
- PT0330 Supply of Steel Towers HVdc Transmission Line.
- PT0352 Supply of Anchor Materials for HVdc Transmission Line.
- PT0353 Supply of OPGW HVdc Transmission Line.
- PT0356 Supply of Tower Dampers.
- SM0700 Provision of General Freight Forwarding Services.
- SM0705 Provision of Laboratory Services.
- SM0709 Provision of Air Transportation Services.
- LCEN043 Provision of EEM Programs Labrador.
- Limited Notice to proceed was executed with Astaldi Canada Inc. for package CH0007 Main civil works Intake, Powerhouse, Spillway and Transition dams.
- The following PO/Contracts have been awarding during the period:
  - CD0503-001 Construction of Earthworks at CF Power Distribution Site.
  - SD0567 Installation of Geodetic Control Survey.

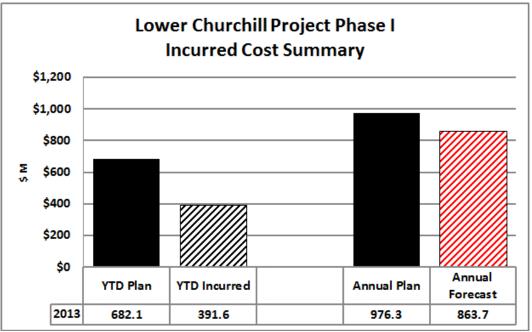
#### **1.5** COST

Incurred cost for MFG, LITL and LTA totalled \$80.5 million for this period versus a forecast of \$98.3 million.
 Variance largely due to recovery activities on bulk excavation and accommodations complex including site services. Overall expenditures continue to lag DG3 plan due to delay in start of TL construction and shift out of many MF expenditures. While significant number of changes has occurred, overall approved FFC remains well within budget, but expected to validate prior to award of upcoming major contracts for both the powerhouse & spillway and transmission construction.



Period Ending: 30-Sep-2013

Page: 6 of 83



Note: All total cost numbers have been updated to include Interest Charges, Project debt Financing and Other Costs.

#### 1.6 PROGRES AND SCHEDULE PERFORMANCE

- While overall earned progress continues to fall behind plan, the critical path still maintained for end of 2017 First Power.
- Bulk Excavation recovery activities progressed well, thus reducing risk of not being ready for the commencement of Spillway foundation preparation in Q4.
- Forecasting award of key contracts HVac TL construction (CT0319) and Intake, Powerhouse and Spillway construction (CH0007) in October 2013.

## 1.7 KEY PRIORITIES

- Increased and proactive communication between LCP and CF(L)Co. management in order to ensure complete awareness of LCP activities at CF, and to further develop a collaborative working relationship.
- Finalize commercial way forward with respect to upgrades of the Forestry Access Road in order to have completed by year-end.
- Bid evaluation of Packages CH0007 Intake, Powerhouse, Spillway & Transition Construction, CT0319 HVac TL construction, and CH032 Hydro mechanical equipment with target to award in October 2013.

#### 1.8 ISSUES & OPPORTUNITIES

- Increasing team engagement to reaffirm a proactive risk management process within the Project is seen as essential. In order to achieve the required level of engagement, a similar task force adopted as successfully implemented for Interface Management will be adopted.
- CH0006 excavation productivity continues to be closely monitored and measures are being taken to improve production rates.



Period Ending:	30-Sep-2013
Page :	7 of 83

- Delivery of the Accommodations Complex dorms and kitchen/dining room facilities is being monitored closely
  to mitigate impacts of slippage. Slippage on the availability of utilities is being mitigated by the implementation
  of temporary solutions, thus mitigating cost exposure due to having to source offsite accommodations.
- Delay in award of the AC Transmission Construction package and the knock-on delay on the issue of the RFP for DC Transmission may lead less ability to level the demand for overall critical resources.
- Local market conditions for civil works in support of HVdc Specialties.
- Realization of the benefits of the Collective Agreements for Muskrat Falls during the negotiations for the Intake, Powerhouse and Spillway contract.

#### 1.9 MILESTONES AND KEY DATES

Milestone/Key Date	Baseline	Actual	Forecast	Commentary
MFG - MF Access Road - Ready for Use	15-Oct-2012	30-Nov-2012		Punchlist items being closed.
MFG - Bulk Excavation Contractor Mob.	16-Oct-2012	13-Jan-2013		Demob expected before end 2013.
LITL - EA Release	01-Apr-2013	21-Jun-2013		Federal Release still pending.
LTA - HVac TL ROW Clearing - Start	26-Apr-2013	15-Aug-2013		Recovery plan being developed.
LITL - HVdc TL ROW Clearing - Start	02-Jul-2013		05-May-2014	Mitigation options under review.
LITL - SOBI Landfall (HDD) - Start	01-Sep-2013		16-Nov-2013	Road construction to start in Sep.
MFG - North Spur Works - Start	01-Jul-2014		05-Jun-2014	
MFG - South Dam-Start	02-May-2015		02-May-2015	
LTA - HVac TL Construction - Complete	25-Jun-2015		15-Sep-2015	
LTA - Ready for Power Transmission	23-Aug-2016		21-Nov-2016	
LITL - SOBI Cable Systems Ready	25-Oct-2016		25-Oct-2016	
MFG - River Diverted	09-Nov-2016		09-Nov-2016	
LITL - Ready for Power Transmission	27-Jun-2017		02-Jul-2017	DC Line to be ready by May 2017.
MFN - North RCC Dam Complete	03-Nov-2017		03-Nov-2017	
MFG - First Power from Muskrat Falls	30-Dec-2017		10-Dec-2017	
MFG - Full Power from Muskrat Falls	22-May-2018		06-Apr-2018	



Period Ending: 30-Sep-2013

Page: 8 of 83

# SECTION 2. HEALTH, SAFETY AND SECURITY

# 2.1 MONTHLY STATISTICS

		Current Period			Year to Date			Project to Date	
	Project Delivery Organization	Contractors	Total	Project Delivery Organization	Contractors	Total	Project Delivery Organization	Contractors	Total
Exposure Hours	91,640	192,269	283,909	650,951	1,012,934	1,663,885	2,225,387	1,801,637	4,027,024
Leading Indicators									
High Potential Near Misses	0	5	5	0	21	21	0	34	34
Near Misses	0	5	5	0	23	23	0	78	78
First Aid	0	7	7	0	45	45	0	55	55
Conditions/Hazards, Practices, & Commendations	74	0	74	74	0	74	1,477	0	1,477
Orientations Completed	221	159	380	3,209	1,271	4,480	3,209	1,271	4,480
TSA's Completed	0	42	42	8	1,047	1,055	8	1,047	1,055
StepBacks Completed	228	9,648	9,876	1,994	52,583	54,577	1,994	52,583	54,577
Worksite Inspections	61	117	178	1,043	1,277	2,320	1,043	1,277	2,320
Lagging Indicators									
Lost Time Injuries	0	0	0	0	1	1	0	1	1
Medical Aids	0	0	0	0	3	3	0	3	3
Occupational Illnesses	0	0	0	0	0	0	0	0	0
Restricted Work Cases	0	0	0	0	1	1	0	1	1
Vehicle Incidents	0	1	1	0	5	5	0	5	5
Restricted Work Days	0	11	11	0	17	17	0	17	17
Lost Time Days	0	2	2	0	2	2	0	2	2
Property & Equipment Damage	0	4	4	0	25	25	0	56	56
Security Incidents	0	4	4	0	4	4	0	4	4
Environmental Releases	0	7	7	0	24	24	0	24	24
Lagging Frequencies									
Total Recordable Incident Frequency Rate	0.000	0.000	0.000	0.000	0.987	0.601	0.000	0.555	0.248
Lost Time Incidents Frequency Rate	0.000	0.000	0.000	0.000	0.197	0.120	0.000	0.111	0.050
All Injury Frequency Rate	0.000	0.000	0.000	0.000	0.790	0.481	0.000	0.444	0.199

# Notes:

- 1. Reported Total to Date is based on a June 1, 2006 start date for data compilation.
- 2. All hours are now reported from a single data base.
- 2. Formula for TRIFR: ((LTI + MA + RWC + OI) \* 200000) / Number of Hours Worked for the Period.
- 3. Formula for AIFR: ((LTI + MA) \* 200000) / Number of Hours Worked for the Period.
- 4. "Other Contractors" include all Contractors other than the EPCM Contractor (SLI), but does include hours expended by SLI outside of the EPCM contract.



Period Ending: 30-Sep-2013

Page: 9 of 83

# 2.2 SAFETY INCIDENTS

		Risk Ass	essment
Date of Incident 2013	Description of Incident	Actual Consequence	Maximum Reasonable Consequence
03-Sep-13	Blast in the Powerhouse. The Primeacord in between holes was cut off by Blast Rock.	Near Miss	
03-Sep-13	Worker was observed by co-worker as not being fit for work. Supervision applied the Canadian Model. Worker refused Reasonable Cause Testing.	Non-conformance	
03-Sep-13	Two workers got into a physical altercation when one worker got upset over a "practical joke" that was played on him.	Security Incident	
04-Sep-13	Operator was operating machine (PC 2000) with the boarding ladder in the down position and it came into contact with material.	Property Damage	
06-Sep-13	Tractor trailer delivering trailer at camp pad made contact with a pole. Some damage sustained to pole and tractor.	Property Damage	
07-Sep-13	Employee was sweeping dust from floor of camp dorm (f) when he felt a pain in his lower back.	First Aid	
10-Sep-13	While removing driveline form unit, Haul truck worker felt discomfort in his left shoulder assessed by medic and returned to work.	First Aid	
10-Sep-13	Worker states he felt discomfort in his right hip after performing repetitive tasks on uneven terrain for the previous few shifts.	First Aid	
10-Sep-13	Operator was performing a pre-use inspection on his machine. As he was lifting the engine hood to check the oil he felt discomfort in his lower back.	First Aid	
11-Sep-13	Operator was stepping down from the excavator. He turned to walk while still holding onto the handrail, twisting his shoulder in the process.	First Aid	
12-Sep-13	Worker was working with a pipe fusion machine inside a hording. When walking around the machine the worker struck her knee of the machine causing an abrasion.	First Aid	
16-Sep-13	Worker was observed clearing the hopper on the telebelt while standing on a water tank above 6 ft. without a Fall Protection System in place.	Near Miss	
16-Sep-13	Worker was driving 11 km over the posted speed limit.	Security incident	
19-Sep-13	Worker was removing the protective Bell off of the drill casing when the bell slipped pinching the workers finger between the bell and a rock.	First Aid	
19-Sep-13	While driving through the bulk excavation a 740 haul truck struck the rear end of a parked light duty pickup truck.	Property Damage	
21-Sep-13	Operator was travelling 336 excavators on the camp pad. The stick of the unit came in contact with and 8x8 pressure treated block heater post and damaged the post.	Property Damage	



Period Ending: 30-Sep-2013
Page: 10 of 83

Date of		Risk Ass	essment
Incident 2013	Description of Incident	Actual Consequence	Maximum Reasonable Consequence
21-Sep-13	Worker was about to install pipe overhead in Dorm L and felt discomfort in his neck.	First Aid	
22-Sep-13	An employee was approached by H&S Advisor and manager during a field inspection at 8:00 am and employee had failed to complete FLRA.	Near Miss	
24-Sep-13	While backing Cat 769 haul truck 58-05-03 into the excavator in the spillway passenger side mirror struck corner of box on parked Cat 769 haul truck 58-89-02 and broke.	Property Damage	
25-Sep-13	Worker was cleaning men's washroom on site. As she stepped back from cleaning the toilet her left foot hit the floor awkwardly causing her left knee to twist.	First Aid	
26-Sep-13	Operator was cleaning under the hopper belt with the loader and the bucket came in contact with a rope as he backed up. He heard a snap and this was a piece of two by four.	Property Damage	
26-Sep-13	While backing up haul truck to excavator in the spillway to dump load of rock into a drainage sump he backed up too far on the driver's side, the wheels went into the sump, truck slowly started to lean over ending up on its side.	Near Miss	
28-Sep-13	While backing CAT 773 Rock Haul Truck 58 12 01 to the excavator in the spillway to get loaded truck 58 12 01's mirror struck the corner of box on parked CAT 773 Rock Haul Truck 58 11 04 causing damage to the mirror.	Property Damage	
28-Sep-13	Slipped while tightening flange on Camp Pad striking left thumb causing small laceration. Worker was wearing gloves at time of incident.	First Aid	
29-Sep-13	Worker was in portable chemical toilet when he heard machinery operating nearby. When the worker opened the door there was a forklift close by. It is alleged the forklift was going to move the portable toilet.	Near Miss	
30-Sep-13	Operator was travelling a terex crane down the east side of the RCC dam. During the travel the crane outrigger located on the front left side hit a rock causing damage.	Property Damage	

## 2.3 HIGHLIGHTS

- Incident log: Numbers differ from the database table in section 2.1 due to weekly cut-off date.
  - o 0 Medical Aids registered during the period.
  - o 0 Lost Time Incident registered during the period.
  - o 10 First Aid incidents registered during the period.
  - 5 Near misses registered during the period.
- Participated in CH0007 readiness meeting with contractor.
- Completed formal H&S audit of Transmission Line Clearing Contractor.
- Finalised development for H&S reporting database.

# CIMFP Exhibit P-01854

# Page 11



# **MONTHLY PROGRESS REPORT**

Period Ending:	30-Sep-2013
Page:	11 of 83

- Held IMT Safety Meeting.
- New HVdc Specialties H&S Coordinator started.
- Participated in Nalcor Safety Summit.
- Continued final revision of Project Wide ERP.
- Participated in governance meeting with Morneau Shepell and support from Innu Med.

#### 2.4 SECURITY

- Altercation between 2 employees from Contractors.
- Speeding on site from Contractors.

# 2.5 CONCERNS

Item	Description / Status	Action
	NA for this reporting period	

#### 2.6 ACTIVITIES PLANNED FOR THE NEXT PERIOD – OCTOBER 2013

- Roll out ER Training Plan for Labrador Construction.
- Finalize EOC for Labrador Construction.
- Roll out new H&S Reporting Database to all contractors.
- Finalise ERP for camp opening.
- Finalising A&D Policy revision with 3<sup>rd</sup> party consultant.
- Hiring of additional HSSER Advisor for expanding Overland Transmission work's scope.
- Complete RFP Review for SH0041.
- Support mobilization of CH0007 Contractor.
- Initiate Security searches at MF locations.



Period Ending:	30-Sep-2013
Page :	12 of 83

# SECTION 3. ENVIRONMENT - REGULATORY COMPLIANCE

#### 3.1 ENVIRONMENTAL ACTIVITIES

- Environmental Construction Monitoring is underway at all Generation and Transmission sites. Daily reports are being received and any required actions addressed.
- Completed monthly Water Quality Data Report for Regulatory submission.
- Environmental engineering deliverables for the month of September included:
  - Review of the revised bulk fuelling station design;
  - Provided guidance on the revisions to the converter station storm water drainage plan;
  - Review of the Forestry Road upgrade C-SEPP;
  - Provided guidance on the construction methodology for the Soldiers' Pond site grading plan;
  - Provided guidance on the revised Company lay-down area storm water drainage system, and
  - Review of the temporary camp sewage treatment system capacity and operating practices.
- Monthly watercourse crossing report prepared for DOEC submission.
- Stage 1 Historic resources assessment on the Island Northern Peninsula complete; central portion to be completed by 31-Oct-2013.
- LC-SB-021 SOBI civil works C-SEPP approved, permits obtained.
- Historic resources recovery program:
  - Recovery continuing at North Spur and South Side Portage Trail.
  - HVac Line cleared; HVdc Labrador to be completed by 15-Oct-2013.
- Aquatic baseline program:
  - Complete for 2013.
  - Lab analysis ongoing.
  - Site monitoring ongoing as needed.
- Section 19 Endangered Species Act permit obtained for Listed Plants.
- LC-EN-043 to be awarded.

#### 3.2 ENVIRONMENTAL INCIDENTS

Spill incidents for the period: September 2013. A summary of incidents is provided below:

		Risk Assessment	
Date of Incident 2013	Description of Incident: Fluid Release Incidents (>2L)	Actual Consequence	Maximum Reasonable Consequence
	Table will be updated for the next reporting period.		



Period Ending:	30-Sep-2013
Page:	13 of 83

# 3.3 REGULATORY COMPLIANCE

Two regulator visits over the reporting period from DFO and Water Resources with very positive feedback.

# 3.4 PERMITTING

Permit applications are being prepared for Nalcor's use in discussions with EMC and regulators. A summary status is provided below

Construction Package	Permits Required	Permits Developed	Submitted to Nalcor	Reviewed by EMC	Submitted to Government	Approved
South Side Access Road - CH0004	51	51	51	51	51	51
Existing Forest Access Road - CH0004-002	4	4	4	4	4	4
Bypass Road - SSAR	8	8	8	8	8	3
Clearing - CH0048	54	54	54	54	54	54
Site Utilities - CH0005 (temp camp)	22	22	22	22	22	22
Construction Power - CD0512	34	34	34	34	34	34
Reservoir Clearing - CH0024	12	12	12	12	12	9
Bulk Excavation - CH0006	42	41	41	41	41	37
Construction of Intake and Powerhouse, Spillway and Transition Dams - CH0007	2	2	2	2	2	1
North Spur Stabilization Works - CH0008	20	12	12	12	12	11
Hvac Line Clearing - CT0341	15	15	15	15	15	11
HVac Line Construction - CT0319	23	23	23	23	23	16
HVac Line Marshalling Yard	9	8	8	8	8	5
Geotechnical SM0713	4	4	4	4	4	3
Churchill Falls Camp - CD0538	9	9	9	9	9	9
Electrode Geotechnical - SD0503	1	1	1	1	1	1
Component 3 Earth Works - CD0503	18	13	13	13	13	5
SOBI Civil Works - LC-SB-021	7	7	7	7	7	2
SOBI Civil Works - LC-SB-022	3	3	3	3	3	

# 3.5 COMMUNITY ISSUES

• Response to electrode concerns at Dowden's Point continuing.

# 3.6 CONCERNS

- Permit requirements indicated in Section 19 under Species at Risk Act.
- NWPA Approval CH0024 Wharf.
- Blasting at MF Sedimentation during spawning season.



Period Ending:	30-Sep-2013
Page:	14 of 83

#### 3.7 ACTIVITIES PLANNED FOR THE NEXT PERIOD – OCTOBER 2013

- Working with Engineering to ensure the permanent camp sewage treatment plant scope of work includes environmental sampling and reporting.
- Providing guidance on the monitoring of the underwater blast area mucking operations.
- Working with C3 Engineering on the Soldiers Pond construction contract schedule and C-SEPP requirements.
- Working with C3 Engineering on the preliminary design of the Shoal Cove Electrode site and access road requirements.
- Ongoing tracking on Federal EA Release progress expectations the file will be transferred to NRCan in September 2013 for final stage with Federal Cabinet.
- Acquisition of LITL permits and support to (SOBI) contractor efforts on same.
- Complete Waste Management Plan for Components 1, 3 and 4a.
- Approval and Distribution of the LCP Environmental Awareness Strategy.
- Generation EEMP submission.
  - o Caribou, Furbearers, Ice.
- Weather Station commissioning.
- Award and kick-off LC-EN-043 contract.
- Revise permitting coordination procedures for remaining contracts.
- Develop conditions tracking tool.
- Commitments Plan for LITL.
- Implementation/initiation of field program associated with Heritage Resource Assessments on the Island.
- Ongoing liaison with DFO on Fisheries Act (FA) requirements and drafting of FHCP. A public consultation (per FA) plan for October 2013 is also required this month.
- Provide Contract start-up Environmental presentations for CH 0007.



Period Ending: 30-Sep-2013

Page: 15 of 83

# SECTION 4. QUALITY ASSURANCE

#### 4.1 KEY ACHIVEMENTS DURING THE PERIOD

#### General

- SM0701 Third Party Surveillance and Inspection Services: ongoing coordination and administration.
- SM0704 Surveying Services: finalized Supplier Document Register requirements with contractor.
- SM0705 Laboratory Services: analyzed bids.
- Recruitment of quality advisors, coordinators and inspectors continues.
- Mobilized additional QA advisors and inspectors.

#### **MF Generation**

- CH0002 Accommodation Buildings:
  - Quality surveillance visits to fabrication facilities.
  - Finalized ITP for Water Storage Tank.
- CH0003 Administrative Buildings: reviewed execution plan, and ITP's, quality plan, supporting check sheets and issued RFC for shop fabrication coverage.
- CH0004 Construction of South side Access Road: steel rail in place in some areas and post cutting ongoing.
- CH0006 Bulk Excavation:
  - o Cofferdam No. 2 and 3 RCC works ongoing.
  - Quality Audit of Contract Close out Readiness executed.
  - o RCC testing begun.
- CH0007 Intake, Powerhouse Dams:
  - o Completed bid evaluation summary.
  - o Recommendation for award developed.
- CH0008 North Spur Stabilization: Issued quality requirement/questionnaire.
- CH0024 Reservoir Clearing: Reviewed and commented on ITP and quality plan.
- CH0030 Turbines and Generators:
  - o Conducted surveillance on sub-suppliers.
  - o Rolled out of Project Core Values to Third Party Inspectors in China.
  - o Reviewed NCRs and procedures and specifications.
  - o Completed Quality trip to AH.
- CH0032 Hydro mechanical equipment: contract negotiations are continuing, and contract award is still pending.
- CH0033 Power House Crane:
  - Bid clarification meeting.
  - Finalized RFP quality evaluation.
- PH0016 Generator Circuit Breakers: completed quality evaluation RFP stage.
- PH0036 Transformers: issued RFC to witness FAT.
- SH0022 Fuel Supply and Dispensing Services: completed quality evaluation RFP stage.
- SH0040 Garbage Removal: revised quality questionnaire and evaluation score sheets.
- SH0041 Ground Transportation Services: revised quality questionnaire and evaluation score sheets.



Period Ending:	30-Sep-2013
Page:	16 of 83

# **HVdc Specialities:**

- CD0501 Supply and Install Converters and Transition Compounds: submitted evaluation including clarifications.
- CD0503-001 Construction of Earthworks at Churchill Falls: meeting attended on ACONEX workflows and document review and acceptance process.
- PD0537 Supply of Power Transformers: evaluation completed post clarifications and submitted.

#### **Overland Transmission:**

- CT0319 Construction of 315 kV HVac Line: quality requirements modified to suit contractor proposal.
- PT0300 Supply of Transmission Line Conductors 315 kV HVac Line: third party Inspector selected for witness and monitor at Bahrain facility.
- PT0302 Supply of Steel Towers 315 kV HVac: attend FAT, progress inspection activities, addressed perceived issues with galvanizing.
- PT0303 Supply of Tower Hardware 315 kV HVac: mosdorfer reply received. Factory audit recommended.
- PT0326 Supply of Steel Wires 315 kV HVac:
  - o Releases finalized for Counterpoise and Ground wire.
  - Sample testing to be witnessed by third party inspector prior to releasing guy wire.

#### **AC Packages:**

- CT0354 HVac Marshaling Yards 315 kV HVac HVGB: working through workflow backlog.
- PT0300 Supply of transmission line conductor: QSA issued for Factory Acceptance Test of Lots No. 2 and 3.
- PT0301 Supply of HVac Insulators: QSA issued for Factory Acceptance Test of Lot No. 2.
- PT0302 AC Towers:
  - o FAT proceeding, expected to be completed by end of next week.
  - o Issues arising of communications between TPI, Vendor and LCP.
  - Lead TPI in process of being replaced.
- PT0307 AC Tower Foundation: production started. TPI deployed to monitor progress, 02 reports in.
- PT0326 Supply of Steel Wires 315 kV HVac: sample testing witnessed by third party inspector to allow release of guy wire.
- PT0329 Supply of HVdc Insulators 350 kV HVdc:
  - First lot getting ready for production for testing purposes. TPI to be engaged form AC package to cover activity.
  - o First 400 samples produced, report pending.
- PT0335 Supply Anchor Materials AC: working through evaluation.
- PT0353 Supply of Optical Ground Wire (OPGW) 350 kV HVdc: RFP bid evaluation starting.
- Quality Releases issued for first shipment of tower steel.

# **DC Packages**

- PT0308 Supply of Steel Tower Foundations 350 kV HVdc: clarifications (second round) ongoing.
- PT0352 Supply of Anchor Materials: initial round of evaluations completed ongoing clarifications.



Period Ending:	30-Sep-2013
Page :	17 of 83

Quality assessments visits planned for DC tower steel bidders.

#### **SOBI**

- Review and approved Quality Plan for Civil works contract LC-SB-021.
- Reviewed type test procedures for cable manufacturing.
- Finalized RFP Evaluation for Conduit End Connection package LC-SB-036.
- Completed audit planning for the remainder of 2013 for SOBI works.
- Provided comments to TPI Lessons Learned.
- Kick-off meeting with Baker Hughes for Directional Drilling Services contract LC-SB-024.
- Evaluation of Supply of Bits and Tooling EOI clarifications LC-SB-026.
- Review of scope of work and estimated costs for lab services contract.
- Reviewed type test procedures for cable manufacturing.
- Review of contract requirements for Emera cable contract.
- Arrange cable inspectors for 22-Oct-2013, it starts in Japan.
- Issue Audit Notification for Pre-Mobilization audit of Direct Horizontal Drilling (scheduled for 13-18-Oct-2013).
- Plan travel to Edmonton and Japan.
- LC-EN-043 Provision of Environmental Effects Monitoring Program: complete quality evaluation for RFP stage.

#### 4.2 ONGOING WORK – KEY AREAS

- SM0701 Third Party Surveillance and Inspection Services: ongoing coordination and administration.
- SM0705 Laboratory Services: analyze bids.
- Recruitment of quality advisors, coordinators and inspectors continues.
- CH0006 Bulk Excavation: issue Quality Audit report of Contract Close out Readiness executed.
- CH0030 Turbines and Generators:
  - o Conduct surveillance on sub-suppliers.
  - o Review NCRs and procedures and specifications.
- PT0302 AC Towers:
  - o FAT proceeding, expected to be completed by end of next week.
  - o Issues arising of communications between TPI, Vendor and LCP.
  - Lead TPI in process of being replaced.
- PT0307 AC Tower Foundation: Production started. TPI deployed to monitor progress, 02 reports in.
- PT0326 Supply of Steel Wires 315 kV HVac: Sample testing witnessed by third party inspector to allow release of guy wire.
- PT0329 Supply of HVdc Insulators 350 kV HVdc:
  - First lot getting ready for production for testing purposes. TPI to be engaged form AC package to cover activity.
  - o First 400 samples produced report pending.
- PT0335 Supply Anchor Materials AC: Working through evaluation.



Period Ending: 30-Sep-2013

Page: 18 of 83

- PT0353 Supply of Optical Ground Wire (OPGW) 350 kV HVdc: RFP bid evaluation starting.
- Quality Releases issued for first shipment of tower steel.
- PT0308 Supply of Steel Tower Foundations 350 kV HVdc: Clarifications (second round) ongoing.
- PT0352 Supply of Anchor Materials: Initial round of evaluations completed ongoing clarifications.
- Quality assessments visits planned for DC tower steel bidders.
- Review of Nexans COR for changes to the Type Test program.
- Evaluation of RFP Clarifications for Subsea Rock contract LC-SB-011.
- Review of Emera cable contract quality requirements.
- Follow-up of Amec NCR's.
- Preparations for Futtsu start of manufacture visit (scheduled for 18-28-Oct-2013).
- Audit Notification for Pre-Mobilization audit of Direct Horizontal Drilling (scheduled for 14-18-Oct-2013).
- Preparations for Pre-Mobilization audit of Direct Horizontal Drilling (scheduled for 14-18-Oct-2013).
- Review of Direct Horizontal Drilling Quality Plan.
- Review of MI Swaco Quality Plan.

## 4.3 ISSUES / AREAS OF CONCERN

- CH0007 Intake, Powerhouse Dams: Powerhouse contract readiness.
- SM0705 Laboratory Services: recommendation for award to be developed.
- Volume of continuing to increase, with resources presently in place ability to accommodate all requirements in timely fashion is maxing out. Backlog is increasing.
- Communications between TPI and Suppliers and LCP.
- Package information not being delivered to the correct coordinators, due to incorrect distribution listings.
- TPI communication issues being worked through.
- Award of Laboratory Services Contract.
- CH0002 Accommodation Buildings (Site Utilities): investigating mold issues.
- CD0503 Construction of Earthworks: quality monitoring strategy and plan is required to be developed in the very short term.
- PD0537 Supply of Power Transformers: preparation for award recommendation and follow on supplier preaward audits.
- CD0501 Supply and Install Converters: quality management strategy is required.
- Recruitment required for open positions.
- PT0300 Supply of Transmission Line Conductors 315 kV HVac Line: FAT to be witnessed week of 23-Sep-2013.
- PT0302 AC Towers:
  - o Ongoing issues with TPI and the lack of detailed information coming from the reporting process.
  - o Completion of FAT and the deployment of replacement TPI.

#### 4.4 ACTIVITIES PLANNED FOR THE NEXT PERIOD – OCTOBER 2013

- Prepare quality surveillance plans for awarded packages.
- CH0007 Intake, Powerhouse Dams: meetings with recommended bidder.

# CIMFP Exhibit P-01854

# Page 19



# **MONTHLY PROGRESS REPORT**

Period Ending:	30-Sep-2013
Page :	19 of 83

- CD0503 Construction of Earthworks: Quality monitoring strategy and plan is required to be developed in the very short term.
- PT0302 AC Towers: change out of lead inspector.
- CT0319 Construction of 315 kV HVac Line: interview of proposed Quality Manager.
- Quality Assessment of DC tower steel bidders.
- Agree on revised strategy for MF laboratory services.
- Agree on organization for monitoring all work in China.
- Review further package information from Nexans with regards to changes to trial cable program.
- Finalize evaluation of Subsea Rock clarifications.
- Conduct interviews for additional QA Advisor positions.



Period Ending:	30-Sep-2013
Page:	20 of 83

## SECTION 5. SCHEDULE AND COST

#### 5.1 PROJECT SCHEDULE

#### **MFG**

#### CH0002 MF Main Accommodation Complex:

- During this reporting period, initial occupancy slipped 24 days to 15-Oct-2013.
- During this reporting period, full occupancy slipped 10 days to 15-Feb-2014.

#### CH0006 Bulk Excavation:

- During this reporting period, spillway excavation slipped 31 days with completion forecast on 29-Oct-2013.
- During this reporting period, cofferdams work slipped 12 days with completion forecast on 30-Oct-2013.
- During this reporting period, powerhouse excavation slipped 05 days with completion forecast on 30-Oct-2013.

#### CH0007 Main Civil Works:

- Finalize CH0007 construction schedule concerning interfaces with package CH0030 Turbines and Generators.
- Update IPS with aligned CH0007 Main Civil works and CH0030 Turbines and Generators schedules.

#### CH0024 Reservoir clearing:

• Clearing works started on the south side of the river.

#### LTA

#### **HVac Lines:**

- ROW Clearing work is behind schedule; a recovery schedule has been requested to the Contractor.
- Start of Transmission Line construction delayed 196 days but a float of 05 months exists so not impacting the overall project critical path.

#### Switchyards:

- CF Switchyard earthworks delayed 34 days. A 30 days buffer has been established in the schedule between end of earthworks and start of EPC.
- MF switchyard earthworks delayed 08 days but a free float of over 08 months exists to start of EPC.

#### LITL

#### **SOBI Crossing:**

No change in cable laying schedule, cable availability remains the same.

#### **HVdc Lines:**

• No schedule changes from last month.

#### Muskrat Falls – Soldiers Pond earthworks:

 Late earthworks need to be closely monitored to prevent further delays to start of the Switchyard and Converter EPC works.

#### Soldier Pond Switchyard / Converter / Synchronous Condenser EPC Contract schedules:

EPC activities will remain unchanged until information from EPC selections become clear.



Period Ending:	30-Sep-2013
Page:	21 of 83

#### 5.2 PROJECT MILESTONES

- Current forecast for the availability of the LTA for power transmission (21-Nov-2016) has a 03 months slippage, due in large part to the CF switchyard. No change from last month, this is not impacting the overall project critical path.
- Current forecast for the availability of the LITL for power transmission (02-Jul-2017) has a 6 week slippage, due
  in large part to the delay in Segment 04 of the HVdc transmission (centre of Newfoundland). No change from
  last month, this is not impacting the overall project critical path.
- Current forecast for the availability of first power MFG (10-Dec-2017) is 20 days earlier than baseline. No change from last month.

#### 5.3 CRITICAL PATH

• The critical paths for the three projects (MF, LTA and LITL) are unchanged.

#### 5.4 SCHEDULE VARIANCE ANALYSIS

• Delays as indicated in the project milestones section.

#### 5.5 CAPITAL COST - COST STATUS

#### **Control Basis**

- This section reports costs only related to Phase I of the Lower Churchill Project encompassing Muskrat Falls Generation, the Labrador Island Transmission Link, and the Labrador Transmission Asset. Costs associated with the Maritime Link and Phase II which encompasses Gull Island Generation are not included in this cost report.
- With the loading of the Decision Gate 3 (DG3) estimate into Prism LCP Phase I stewardship and reporting is now being done against the DG3 CAPEX Original Control Budget (DG3 OCB) for Phase I of \$6.202 billion comprised of Muskrat Falls Generation: \$2.901 billion; Labrador Island Transmission Link: \$2.610 billion and the Labrador Transmission Asset: \$0.691 billion.
- Non-Capex costs related to interest (historical), debt financing costs and other project costs (primarily the Upper Churchill Redress) are allocated to each individual project component adding an additional \$0.182 billion to the Phase I overall Control Budget for a total of \$6.384 billion.
- For Phase I of the Lower Churchill Project we are no longer stewarding to or reporting against annual capital budgets.
- The DG3 Phase I Total Current Control Budget (CCB) which includes the DG3 CAPEX OCB, DG3 Non-Capex OCB and all approved changes currently totals \$6.384 billion.

#### **Period Incurred versus Plan Incurred Cost**

• Phase I period incurred cost for the July 2013 reporting period was \$53.1 million versus the DG3 OCB for the period of \$103.0 million and a forecast at the end of June of \$42.0 million broken down by component as:

Component	A Baseline	B Forecast	C Incurred Cost	D = C - B Variance
Muskrat Falls Generation	\$53,433,687	\$40,452,677	\$69,605,419	\$29,152,742
Labrador Island Transmission Link	\$27,206,860	\$34,722,076	\$4,476,458	-\$30,245,618
Labrador Transmission Asset	\$24,167,321	\$23,081,905	\$6,381,196	-\$16,700,709
	\$104,807,868	\$98,256,658	\$80,463,073	-\$17,793,548



Period Ending: 30-Sep-2013

Page: 22 of 83

• Phase I total Incurred cost to-date is \$748.1 million. This includes both CAPEX and Non-Capex costs. Attachment 12.5 provides details of the period and cumulative incurred cost for each major cost grouping with Attachments 12.6 through 12.8 breaking down the period details by Project Component.

- The period incurred variance remains primarily attributable to a shifting of costs as a result of delays in awarding construction contracts arising from the delay in achieving Project Sanction. Details of the period incurred variance by component by reporting categories are contained in Tables 5.1 through 5.4.
- The primary drivers for this month's variance remain mainly construction costs as related to the permanent
  accommodations complex including site services (catering, housekeeping and janitorial), turbines and
  generators, AC Transmission, Project Debt Financing and SOBI. The variance was somewhat offset by higher
  than forecasted costs in the areas of Bulk Excavation, the temporary accommodations complex (CF) and EPCM
  services. Details of the period incurred variance by component by reporting categories are contained in Tables
  5.1 through 5.4.

#### **Current Forecast**

- The DG3 CAPEX OCB was predicated upon achieving Decision Gate 3 (DG3) at the beginning of Q3-2012. The current CAPEX Final Forecast Cost (FFC) for LCP Phase I of \$6.202 billion is based on the actual project sanction (DG3) date of December 17, 2012 however as cost reporting is done on a monthly rather than a daily basis for cost reporting purposed all incurred costs up to and including November 30, 2012 will be reported as Pre-Sanction Costs with all incurred costs after this date being reported as Post-Sanction. The Pre-Sanction cost of Phase I of the Lower Churchill Project was \$312,168,771 (MF: \$182,896,494; LITL: \$108,391,140; LTA: \$20,881,140).
- Trends are potential changes in either scope or cost that have been identified but not yet been approved through the LCP Change Management process. The Current LCP Phase I Final Forecast Cost (FFC) includes the potential cost of these trends, at the reporting category level and a resulting drawdown or increase in contingency as appropriate. The net effect of trends on the FFC is \$0 as a result of this drawdown or increase in contingency however this may change in the future as contingency is further used for approved project changes. Table 5.5 shows these trends on a component basis.

# **Project Change Notices**

• During the September reporting period 0 Project Change Notices (PCNs) for Phase I was processed in Prism resulting in a zero drawdown of Project Contingency for the period. Total Project Contingency drawdown since project sanction totals -\$168.7 million (Muskrat Falls: -\$122.6 million; LITL: -\$9.9 million; LTA: -\$36.2 million).

#### **Funding**

- A Master Project AFE (by component) for Phase I has been approved by the Gatekeeper and the Nalcor Board of Directors. This Master AFE ensures that the Project (Phase I) is fully funded until project completion.
- The AFE funding has been allocated on an individual project component level basis based on the historical and projected capital cost of each component to the end of the project. The table below shows how the CAPEX funding of \$6.202 billion has been allocated. This application of the project-to-date funding remains subject to management level review and approval.



Period Ending:	30-Sep-2013
Page:	23 of 83

CAPEX AFE Funding by Project Component (less Interest (historical), Project Debt Financing and Upper Churchill Redress) (\$ million CDN)

Project Component	Prior AFE Funding	Master Project AFE Amount	Total Project Funding
Muskrat Fall Generation	\$260.9	\$2,640.3	\$2,901.2
Labrador-Island Transmission Link	\$116.9	\$2,492.8	\$2,609.7
Labrador Transmission Assets	\$36.6	\$655.00	\$691.0
Total:	\$414.4	\$5,788.1	\$6,201.9

#### **Additional Notes to Cost Report**

- A percentage of certain General Administration and Project Management costs are allocated to the project components based upon an allocation matrix and in alignment with the cost allocation methodology as developed in conjunction with the Project Finance & Accounting group. This methodology and matrix are reviewed on regular basis to ensure that it is fair and equitable and accurately reflects the current breakdown of direct charges for scopes of work that are occurring within each of the project components. Should a change in either the methodology or the percentages of the General Administration and Project Management costs assigned to each project component change it will be noted in this report and the report details adjusted to reflect the new information.
- It was agreed between Project Controls and the Finance & Accounting group that the continued allocation of General Administration and Project Management costs to both Gull Island and the Maritime Link components was no longer valid. As a consequence of this decision the allocation percentages were changed to reflect this and applied retroactively back to May 2012. The basis of the new allocation percentages is the direct capital cost of the project components as per the DG3 OCB. This allocation realignment has resulted in some changes to previously reported budgets and costs for all project components.
- During the May 2013 reporting period retroactive adjustments to the incurred cost at the end of 2012 were made in Prism to bring Prism in-line with the JD Edwards system used by Nalcor corporate to generate the financial statements and reports. The result of these adjustments was that the historical incurred costs for Phase I reduced by a net amount of -\$6,325,947. The adjustments to each of the Phase I project components were as follows:

Project Component	Previous Incurred cost to end of 2012	Adjusted Incurred cost to end of 2012	Adjustment Amount
Muskrat Fall Generation	\$211,619,284	\$215,787,456	\$4,168,172
Labrador-Island Transmission Link	\$122,281,670	\$110,277,599	-\$12,004,071
Total:	\$362,780,332	\$356,454,385	-\$6,325,947



Period Ending: 30-Sep-2013

Page: 24 of 83

Table 5.1: Period Incurred vs Plan Incurred (Total Phase I-Thousands CAD)

Functional Group	A: Plan Incurred	B: Forecast Incurred	C: Period Incurred	D=C-B: Variance
100 NE-LCP Owners Team, Admin and EPCM	\$12,853	\$9,264	\$13,457	\$4,193
200 Feasibility Engineering	\$155	\$61	\$1,161	\$1,100
300 Environmental & Regulatory Compliance	\$459	\$554	\$547	-\$6
400 Aboriginal Affairs	\$177	\$35	\$11	-\$24
500 Procurement & Construction	\$77,302	\$28,080	\$36,570	\$8,490
900 Commercial & Legal	\$1,519	\$1,885	\$289	-\$1,596
990 Contingency	\$7,658	\$0	\$0	\$0
CAPEX Totals	\$100,124	\$39,878	\$52,035	\$12,157
910 Interest Charges	\$0	\$0	\$0	\$0
998 Project Debt Financing	\$2,848	\$2,098	\$1,021	-\$1,077
999 Other Project Costs	\$0	\$0	\$0	\$0
LCP Phase I Total:	\$102,972	\$41,976	\$53,056	\$11,080

Table 5.2: Period Incurred vs Plan Incurred (Muskrat Falls Generation – Thousands CAD)

Functional Group	A: Plan Incurred	B: Forecast Incurred	C: Period Incurred	D=C-B: Variance
100 NE-LCP Owners Team, Admin and EPCM	\$6,536	\$4,462	\$8,043	\$3,581
200 Feasibility Engineering	\$103	\$58	\$750	\$692
300 Environmental & Regulatory Compliance	\$127	\$243	\$509	\$266
400 Aboriginal Affairs	\$164	\$18	\$11	-\$7
500 Procurement & Construction	\$45,116	\$18,517	\$31,032	\$12,515
900 Commercial & Legal	\$814	\$1,016	\$40	-\$976
990 Contingency	\$5,454	\$0	\$0	\$0
CAPEX Total:	\$58,314	\$24,314	\$40,385	\$16,071
910 Interest Charges	\$0	\$0	\$0	\$0
998 Project Debt Financing	\$1,261	\$929	\$452	-\$477
999 Other Project Costs	\$0	\$0	\$0	\$0
Muskrat Falls Total:	\$59,574	\$25,243	\$40,837	\$15,595



Period Ending: 30-Sep-2013

Page: 25 of 83

Table 5.3: Period Incurred vs Plan Incurred (Labrador Island Transmission Link – Thousands CAD)

Functional Group	A: Plan Incurred	B: Forecast Incurred	C: Period Incurred	D=C-B: Variance
100 NE-LCP Owners Team, Admin and EPCM	\$3,853	\$3,499	\$2,892	-\$606
200 Feasibility Engineering	\$23	\$2	\$407	\$405
300 Environmental & Regulatory Compliance	\$315	\$289	\$40	-\$249
400 Aboriginal Affairs	\$13	\$17	\$0	-\$17
500 Procurement & Construction	\$18,612	\$6,735	\$607	-\$6,128
900 Commercial & Legal	\$620	\$778	\$210	-\$558
990 Contingency	\$0	\$0	\$0	\$0
CAPEX Total:	\$23,437	\$11,320	\$4,156	-\$7,164
910 Interest Charges	\$0	\$0	\$0	\$0
998 Project Debt Financing	\$1,295	\$954	\$464	-\$490
999 Other Project Costs	\$0	\$0	\$0	\$0
Labrador Island Transmission Link Total:	\$24,732	\$12,274	\$4,620	-\$7,653

Table 5.4: Period Incurred vs Plan Incurred (Labrador Transmission Asset – Thousands CAD)

Functional Group	A: Plan Incurred	B: Forecast Incurred	C: Period Incurred	D=C-B: Variance
100 NE-LCP Owners Team, Admin and EPCM	\$2,464	\$1,303	\$2,522	\$1,219
200 Feasibility Engineering	\$28	\$0	\$4	\$3
300 Environmental & Regulatory Compliance	\$17	\$22	-\$2	-\$24
400 Aboriginal Affairs	\$0	\$0	\$0	\$0
500 Procurement & Construction	\$13,574	\$2,829	\$4,932	\$2,103
900 Commercial & Legal	\$86	\$90	\$39	-\$52
990 Contingency	\$2,204	\$0	\$0	\$0
CAPEX Total:	\$18,373	\$4,244	\$7,494	\$3,249
910 Interest Charges	\$0	\$0	\$0	\$0
998 Project Debt Financing	\$292	\$215	\$105	-\$111
999 Other Project Costs	\$0	\$0	\$0	\$0
Labrador Transmission Asset Total:	\$18,665	\$4,459	\$7,598	\$3,139



Period Ending: 30-Sep-2013

Page: 26 of 83

# **Table 5.5:** Included Project Trending FFC by Project

Project Component	Package	Package Description	Trend Amount
Muskrat Fall Generation	CD0509	Construction of telecom services	-\$650,000
	CD0512	Construction Power	\$453,415
	CH0002	Accommodations complex Buildings	\$25,095,377
	CH0003	Administrative Buildings	-\$671,976
	CH0004	Southside Access Road	\$4,822,306
	CH0006	Bulk Excavations works	-\$2,944,231
	CH0007	Intake, Powerhouse, Spillway and Transition Dams	\$65,840,786
	CH0008	Construction of North Spur Stabilization Works	\$370,000
	CH0009	North and South Dams	-\$2,900,000
	CH0024	Construction of reservoir clearing	-\$16,691,440
	CH0030	Turbine and Generators	-\$15,796,476
	CH0032	Hydro mechanical equipment	-\$4,000,000
	CH0033	Powerhouse Cranes	-\$1,000,000
	CH0048	Site Clearing Access Road and Ancillary Areas	\$4,174,244
	CH0052	Habitat compensation	\$4,625,000
	PD0513	138/25 kV Transformers	\$183,467
	PD0514	138/25 kV circuit breakers	\$40,351
-	PD0515	Disconnect switches	\$41,558
	PD0522	Pre-fabricated control room building	\$330,897
	PD0529	25 kV Reclosers, MV switches & Fuse cut-outs	\$34,893
-	PH0036	Auxiliary Transformers	\$50,633
	PH0038	Emergency Diesel Generators	\$255,277
	PH0053	LCP Used Camp	\$2,459,140
	PH0058	600 V Switchgear	\$824,196
	SH0019	Security services	\$6,043,372
	SH0020	Medical services	-\$1,002,189
	SH0022	Fuel supply and fuel dispensing services	\$1,500,000
	SH0040	Garbage removal and disposal	\$250,000
	SH0041	Personnel Transport	\$1,270,000
	SH0051	Building maintenance	\$2,400,000
	SH0054	Temporary site services	\$1,010,000
	SH0066	Hydraulic Model - North Dam	\$400,000
	SM0701	Provision of 3rd party quality inspection	\$1,000,000
	SM0704	Survey services	\$2,523,512
	SM0714	EPCM services	\$10,000,000
	XX0003	EA ( Environmental)	\$175,000
	XX0005	Owner cost	\$10,000,000
	ZZ0999	Unallocated Budget	\$7,000,000
		Muskrat Fall Generation Total:	\$107,517,112
Labrador-Island TX Link	CD0502	Construction of AC Substations	-\$12,202,267
	CD0503	Earthworks at Various Power Distribution Sites	\$0
	CD0508	Electrode Sites	\$2,460,000
	CD0534 CT0355	Soldiers Pond Synchronous Condensers  Marshalling Yard - HVdc	\$8,424,109 \$4,000,000
	PT0329	Supply of insulators - HVdc	-\$27,330,031
	PT0329	Supply of towers - HVdc	\$335,000
	ZZ0999	Unallocated Budget	\$4,000,000
		Labrador-Island Transmission Link Total:	-\$20,313,189
Labrador TX Assets	CD0502	Construction of AC Substations	-\$24,000,000
	CT0341	Clearing for 315 kV Hvac transmission line (MF/CF)	\$2,242,510
	CT0342	Construction of AC Transmission Lines - Island	\$100,000
	CT0354	Marshaling Yards for Hvac Line (HVGB)	\$1,409,829
	PT0300	Supply of Conductors - Hvac	-\$3,171,155
	PT0301	Supply of Insulators - Hvac	-\$1,770,205
	PT0302	Supply of Steel Towers - Hvac	\$332,117
	PT0303	Supply of Hardware - Hvac	-\$6,473,395
	PT0304	Supply of OPGW - Hvac	-\$512,385
	PT0307	Supply of Steel Tower Foundations- Hvac	\$284,079



Period Ending:	30-Sep-2013
Page:	27 of 83

Labrador TX Assets Total:	-\$31,001,171
LCP Phase I Trend Total included in Current Forecast Cost:	\$56,202,751

# 5.6 COST OF EPCM SERVICES

- The budget and cost incurred for the EPCM Services related with Stage 1 & 2 up to December 2011 was \$ 32.75 M representing 214,871 person-hours spent.
- The EPCM Services budget for the execution of the Project Stage 3 is being reviewed by SLI and Nalcor. For the period from 01-Jan-2012 to 18-Sep-2013 the cost incurred was \$ 128.05 M, representing 852,185 person-hours spent.

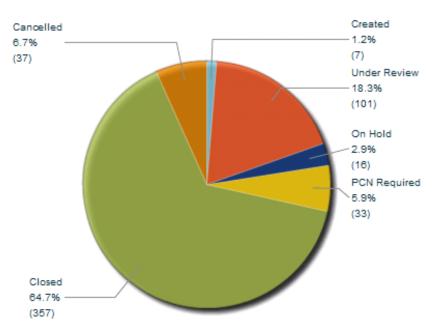
#### **EPCM Personnel:**

• For the period from 01-Jan-2012 to 18-Sep-2013 the total hours spent for the EPCM services was 852,185 hours; it represents an average of 225 people.

# 5.7 CHANGE MANAGEMENT STATUS

## **Deviation Alerts**

- Deviation Alert Notices raised this month: 24
- Deviation Alert Notices closed this month: 16 (includes cancelled)



**Deviation Alert Notices (DANs) Summary** 

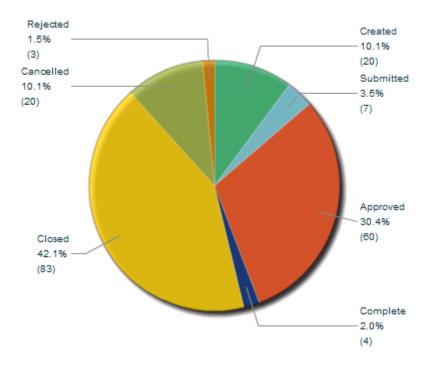


Period Ending:	30-Sep-2013
Page:	28 of 83

# **Project Changes**

# **Project Change Notices approved this month:**

None for this reporting period

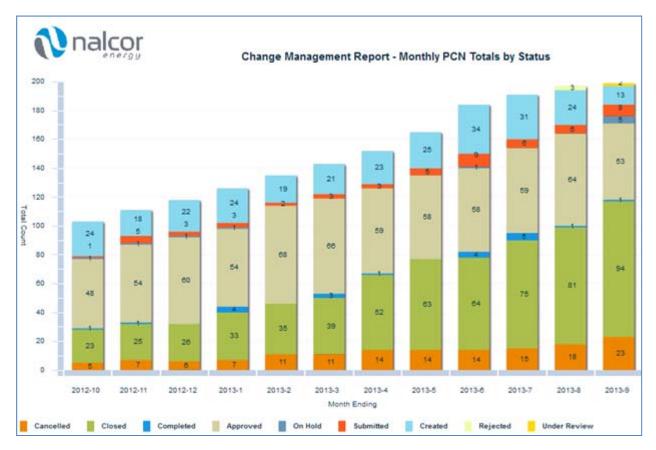


**Project Change Notices (PCNs) Summary** 



 Period Ending:
 30-Sep-2013

 Page:
 29 of 83



**Project Change Notices (PCNs) Monthly Totals by Status** 



Period Ending: 30-Sep-2013

Page: 30 of 83

# SECTION 6. MUSKRAT FALLS GENERATION

## 6.1 AREA INFRASTRUCTURE AND SERVICES

## 6.1.1 Engineering (Progress Report)

- CH0002 Camp: Performed inspections at Champion's fabrication facilities in Topeka Indiana, Sangerfield, New York and Lake City, Florida. Also inspected Mobilfab's fabrication facility in Montreal, Quebec.
- CH0002 Camp: Continued resolution of SQ's and technical issues.
- CH0002 Utilities: Received approval of the water and sewer design, from the governments' environment department with respect to manholes, resulting in a projected savings in excess of \$500K.
- CH0003 Admin Buildings: Engaged engineering consultant.
- CH0003 Admin Buildings: Approved supplier for the Sports Dome.
- CH0003 Admin Buildings: Commenced review of contractor's engineering drawings and data sheets.
- Forestry Access Road: Engaged contractor to complete the scope of work this year.

# 6.1.2 Procurement (Issues and Concerns related with the Area)

 Timely issuance of required change orders to complete required scopes of work to ensure readiness for CH0007.

#### 6.1.3 Construction (Progress Report)

- CH0002 Camp: Continued fabrication at all five (5) facilities.
- CH0002 Camp: Received 50 dorm modules, 24 Stair Cases and 15 KDR modules at site during the month.
   (Cumulative status Dorm Modules 144/264 received, Stair modules 34/66 received, Arctic Corridor 9/9 received, KDR Modules 15/110 received).
- CH0002 Camp: Continued installation of dorm modules.
- CH0002 Camp: Completed remediation work on moisture affected areas of Dorm PB.
- CH0002 Camp: Focus being placed on preparing first dorm for occupancy.
- CH0002 Utilities: Completed piping for temporary water and sewer services for 4 permanent dorms for early occupancy.
- CH0002 Utilities: Received all equipment for temporary water, sewer and fire water services.
- CH0002 Utilities: Placed concrete pads for camp pad mounted transformers.
- CH0002 Utilities: Continued on all work fronts for camp utilities.
- CH0003 Admin Buildings: Mobilized to site and installed communications building.
- CH0004 SSAR: Completed the installation of guide rails.
- CH0004 Forestry Upgrade: Commenced clearing and grubbing for forestry access road upgrade scope of work.

## 6.1.4 Commissioning

• No activity for this report.



Period Ending: 30-Sep-2013

Page: 31 of 83

#### 6.1.5 Area Concerns

Item	Description / Status	Action
01	Slippage of KDR delivery. This will limit the potential camp occupancy to the capacity of the temporary camp kitchen.	Working closely with Liannu to mitigate issues as they arise. Temporary kitchen can service the first 4 dorms until KDR is ready.
02	OHS Approval to occupy dorms with temporary utility systems in place.	Working with safety to submit ERP for approval of plan.
03	Preparation of pad at contractor's laydown area for Laboratory building.	Reviewing access limitations due to CH0006 (IKCONE) current construction activities.
04	Ability to have all Dorm Modules delivered and installed prior to winter conditions at site.	Continuing to work with Liannu to expedite deliveries.

#### 6.1.6 Activities Planned for the Next Period – October 2013

- CH0002 Camp: Complete priority scopes of work associated with the early occupancy of phase 1 (4 dorms) of the permanent camp facility. We require at least one dorm to be ready for occupancy by late October.
- CH0002 Camp: Continue receipt and installation of dorm and KDR modules.
- CH0002 Utilities: Continue water and sewer installation.
- CH0002 Utilities: Complete installation of temporary utilities to facilitate occupancy of dorms prior to completion of permanent utilities.
- CH0002 Utilities: Complete prioritized remaining SOW associated with 25 kV taps.
- Forestry Access Road: Continue execution of SOW for completion in 2013.
- CH0003 Admin Buildings: Start construction activities at site.
- CH0007: General Infrastructure focus is to be on readiness.

# 6.2 AREA BULK EXCAVATION AND DAMS

#### 6.2.1 Engineering (Progress Report)

- CH0009: Drawings PA rev, technical specification, scope of work specification ongoing.
- CH0009: Physical model for North RCC dam ongoing.
- CH0009: RCC North Dam Design ongoing. Alternative layout chosen and developed.
- Meeting with Review Board. North RCC dam design discussed as well as RCC cofferdam construction. Also
  Upstream cofferdam construction discussed.

#### 6.2.2 Procurement (Issues and Concerns related with the Area)

No issues



Period Ending:	30-Sep-2013
Page:	32 of 83

# 6.2.3 Construction (Progress Report)

- Powerhouse Excavation: Up to 30-Sep-2013 the progress for excavation works are:
  - Physical progress completed: 93.0%.
  - o Rock excavation: In the period 108,748 m³ for a total cumulative of 1,462,405 m³ to date.
  - o Elevation achieved in the Powerhouse: Excavation works in progress in Bench No. 05.
- Spillway Excavation: Up to 30-Sept the progress for excavation works are:
  - o Physical progress completed: 91 0%.
  - o Rock excavation: In the period 12,517 m³ for a total of 218,285 m³ to date.
  - Elevation achieved: Final.
- Cofferdams No. 1 and No. 2 and 3:
  - o Physical progress: Cofferdams No. 1 and No 2 and 3: 42.0 % (59,348 and 21,326 m³ respectively).
  - o Rock foundation preparation and rock/till/filter hauling and placing continues for both cofferdams.
- RCC Cofferdam: Preparation of Blocks No. 02 and No. 03 completed. RCC placements in blocks 1 and 2: 24,545 m³ of RCC placed.
- Switchyard Converter Station:
  - Switchyard overburden excavation is 91% complete (125,909 of 139,000 m<sup>3</sup>).
  - Switchyard backfilling is 44% complete (105,899 of 241,100 m<sup>3</sup>).
  - o Converter Station overburden excavation is 86% complete (127,640 of 148,000 m<sup>3</sup>).
  - o Converter Station backfilling is 70% complete (85,073 of 122,100 m<sup>3</sup>).
- Total excavation up to 30-Sep-2013:
  - Overburden excavation (all areas i.e. Powerhouse, Spillway and Cofferdams): in the period 24,187 m³ for a total cumulative of 587,242 5m³.
  - o Total Rock excavation: In the period 429,952 m<sup>3</sup> for a total cumulative of 1,680,690m<sup>3</sup>.
- Excavation Progress is behind the revised schedule by approximately 115,745 m<sup>3</sup>.

#### 6.2.4 Commissioning

Not applicable

## 6.2.5 Area Concerns

Item	Description / Status	Action
01	CH0006: Progress has improved in the last part of the month but still behind schedule.	Close monitoring of situation.
02	CH0006: Construction of RCC cofferdam critical, but	Close monitoring of situation.



Period Ending:	30-Sep-2013
Page:	33 of 83

progress in general very good	

#### 6.2.6 Activities Planned for the Next Period - October 2013

- CH0006: Rock excavation on Bench 05 and excavation of bullnozes.
- CH0006: Complete Excavation of spillway, both above and below water.
- CH0006: Continue Cofferdams No. 01, 02/03: Rock foundation and embankment.
- CH0006: Continue of RCC Cofferdam and construction monitor progress. RCC cofferdam completed up to elevation 21 m as a minimum.

# 6.3 AREA POWERHOUSE / INTAKE AND SPILLWAY

#### 6.3.1 Engineering (Progress Report)

- CH0007: Construction of Intake and Powerhouse, Spillway and Transition Dams Continuing with developing AFC drawings of the powerhouse in Montreal.
- CH0007: Technical and Commercial Evaluation of revised bids from shortlisted bidders completed and Preferred Bidder selected.
- CH0007: Milestone AFC Drawings completed and issued to the selected Bidder.
- CH0007: LNTP issued to Preferred Bidder.
- CH0007: Engineering coordination continues, and design of Powerhouse concrete substructure and steel superstructure with requirements of other disciplines and T&G contractor.
- CH0007: Mechanical auxiliaries: Engineering continues to update embedded piping drawings according to the civil changes.

#### 6.3.2 Procurement (Issues and Concerns related with the Area)

• No comments submitted.

## 6.3.3 Construction (Progress Report)

• Nothing to report this period.

#### 6.3.4 Commissioning

· Nothing to report this period

## 6.3.5 Area Concerns

ltem	Description / Status	Action
	NA this reporting period.	



Period Ending:	30-Sep-2013
Page :	34 of 83

#### 6.3.6 Activities Planned for the Next Period - October 2013

• CH0007: Mobilization Requirement Meetings to be held with selected Bidder ahead of Early Works and Kick-Off MeetingCH0007: Contract to be formally awarded by end of October 2013.

#### 6.4 AREA MECHANICAL AND ELECTRICAL

## 6.4.1 Engineering (Progress Report)

- CH0030: T&G Andritz's Engineering work is at 74 % complete.
- CH0030: T&G Coordination with CH-0007 and CH-0033.
- CH0030: T&G Review of vendor documents submitted by Andritz.
- CH0030: T&G Management of the Action Register, Interface Register and Change Request/Order Register.
- CH0031: Electrical/HVAC/Architecture detailed design progressing on track for RFI December.
- CH0031: Approval of DAN-536 Station Service Supply to Switchyard from Powerhouse has potential to push engineering completion into 2014.
- CH0032: Hydro-Mechanical Equipment Pre-Award Engineering Complete.
- CH0033: Powerhouse Crane Technical Evaluation ongoing. Clarification meetings complete.
- CH0034: Powerhouse Elevator –RFI documentation issued.

#### 6.4.2 Procurement (Issues and Concerns related with the Area)

- PH0014 –Technical and commercial review underway. Expect award mid October 2013.
- PH0015 –RFI circulating for internal review.
- PH0016 RFP issued closed. Technical and commercial review underway.
- PH0035 EOI Vendor submissions received and being evaluated.
- CH0030: T&G Andritz's procurement is at 27.9% complete.
- CH0030: T&G Generators Update: No Purchase Orders (PO) issued this period.
- CH0031: EOI closed 5 applicants. Andritz declined to bid on this work.

#### 6.4.3 Construction (Progress Report)

- CH0030: T&G BOP Update:
  - Design Reviews completed for Governor and exciter.
- CH0030: T&G Turbine Update:
  - Runner blades:
    - Blades No. 01 to No. 16 have been poured;
    - Rough machining, NDT, repairs and heat treatment underway.
  - o Runner Hub:
    - Hub No. 01, 02, 03 and 04 have been poured;
    - Rough machining of Hub No. 02 underway. Hub No. 01 sent back to heat treatment due to low charpy valves.
  - Stayring:



Period Ending:	30-Sep-2013
Page:	35 of 83

- Stay ring sections being welded;
- Stay Vanes and Shrouds forming and machining in progress.
- o Bottom Ring:
  - All materials have been ordered and delivered. Material preparation underway.
- Draft Tube:
  - All materials have been ordered.
- o Discharge Ring:
  - Material preparation is underway.
- o Guide Vanes:
  - Hot forming procedure for guide vanes is under development. Mold under fabrication. Trial section planned for late October.
- Outer Headcovers:
  - All materials have been ordered;
  - Material testing planned to begin in early October 2013.
- Circular Passage:
  - Inspection of circular passage for unit 1 completed.
- CH0030: T&G Generators Update:
  - Stator Frames:
    - Material purchasing is in progress;
    - Configuration of HPU 90% finalized.
  - o Commissioning.
- Not applicable

# 6.4.4 Commissioning

Not applicable

#### 6.4.5 Area Concerns

Item	Description / Status	Action
01	QA support for China fabrication for Package CH0030	Follow up with Package Lead and QA Manager to refine the coordination efforts to meet package expectations.
02	Impact of DAN-536 Station Service Supply to Switchyard from Powerhouse on CH0031 RFP and engineering completion	Seek approval for option that minimizes impacts and implement efficient action plan



Period Ending:	30-Sep-2013
Page :	36 of 83

#### 6.4.6 Activities Planned for the Next Period – October 2013

- CH0030 Turbines & Generators Continue focus on Quality review of submitted documents and Welding, NDE and ITPs. Issue of LCP Quality Plan and re-issue of Andritz Quality Plan.
- CH0031 Balance of Plant equipment Issue bid list.
- CH0031 Electrical package engineer start date TBD.
- CH0032 Hydro mechanical equipment Award LNTP for engineering.
- CH0033 Powerhouse cranes Recommendation for award and final negotiations.
- CH0034 Powerhouse elevator Issue RFP.
- PH0014 Generators Step-up transformers Issue PO.
- PH0015 Isolated phase Bus Issue RFP.
- PH0016 Generator Circuit Breakers –Complete technical and commercial bid evaluation.
- PH0035 Station Service Transformers Complete review of EOI submissions and issue RFI internally.

#### 6.5 AREA NORTH SPUR STABILIZATION, RESERVOIR CLEARING AND HABITAT COMPENSATION WORKS

#### 6.5.1 Engineering (Progress Report)

- CH0008: North Spur Stabilization. Completion of Cold Eyes review of technical package.
- CH0008: North Spur Stabilization. Presentation and review of design with Independent Engineer.
- CH0008: North Spur Stabilization. Completion of test pits in granular source GR-2 and collection of rock samples from quarry source Q-6.
- SM0713: North Spur Geotechnical Investigation. Draft investigation report received from AMEC.
- CH0052: Habitat Compensation. On hold until fall winter 2013.

#### 6.5.2 Procurement (Issues and Concerns related with the Area)

- CH0008 North Spur Stabilization: Finalization of bidder/RFP strategy.
- CH0024 Reservoir Clearing: Processing of first progress payment and verification of quantities.

#### 6.5.3 Construction (Progress Report)

• CH0024: Reservoir Clearing. Operations continue in Lower Brook (Nobles) and the area of the main camp (Johnson's). A second subcontractor, Springdale Forest Resources, commenced clearing operations on the south side of the river. Set up of Johnson's main camp continues and will be ready for occupancy in October.

#### 6.5.4 Commissioning

• Nothing to report this period.

#### 6.5.5 Area Concerns

Item	Description / Status	Action
01	Confirmation of CH0008 bidders/RFP strategy.	Have technical package ready.



Period Ending:	30-Sep-2013
Page :	37 of 83

#### 6.5.6 Activities Planned for the Next Period - October 2013

- CH0024 Reservoir Clearing: Occupancy of Johnson's main camp.
- CH0024: Construction of main dock facility.
- CH0008 North Spur Stabilization: Site visit and workshop with bidders.
- CH0008: Presentation to Expert Review Panel.

#### 6.6 RISK AND INTERFACE MANAGEMENT

#### 6.6.1 Achievement this Period

- Facilitated meeting with CH0030 Turbines and Generators Contractor for review of Risk Register.
- Conducted Risk workshop for C1 Infrastructure Packages.
- Conducted Risk workshop for C1 Mechanical/Electrical Packages.
- Conducted 2 Risk workshops for CH0009 RCC North Dam.
- Conducted a Risk Workshop for CH0049 Supply and Install Log Booms.
- Completed final revision of CH0007 Main Civil Works, Risk Questionnaire evaluation.
- Reviewed and commented SH0051 MF Building Maintenance Services SOW and provided Risk question for technical evaluation.
- Significant progress in the development and implementation of the revised LCP Interface Management Process, including:
  - o Production of a new Aconex instance combining under one system External and Internal interfaces, RFI and TQs: migrated the RFI and TQs records (with legacy information) in this new instance.
  - Interface Workshops conducted for Packages PH0014 Generator Step-up transformers, PH0015 –
     Isolated Phase Bus, PH0016 Generator Circuit Breakers, and PH0035 Station Service Transformers.
  - o Conducted 20 workshops to-date; 69 interface agreements signed.
  - o Formal roll out of LCP Interface Mgmt instance completed.
  - o Developed a dashboard system for the interface monitoring and reporting.

#### 6.6.2 Current Priorities

- Re-schedule and conduct MFG Powerhouse Risk Workshop
- Process, update and issue MFG Risk Register for review of mitigation measures and Risk status
- Robust interface monitoring process in order to achieve timely reporting of interface status
- Completion of the Interface Management Plan and Procedures
- Further empowerment of component interface engineers to facilitate the interface management process within their teams

#### 6.6.3 Issues and Opportunities

• Opportunity: as the award of the Powerhouse contract is imminent, the timing for a Powerhouse Risk review is most favorable as it would support prioritization of key actions.



Period Ending:	30-Sep-2013
Page :	38 of 83

## SECTION 7. HVDC SPECIALTIES

Engineering deliverables and progress are covered within Section 7 as part of the monthly reporting for the different areas of HVdc Specialties. During the month of September 2013, the Component earned 187 person-hours and expended 860 person-hours resulting in a Productivity Index for the month of 0.22. This progress is only associated with two packages CD0508 – Electrodes sites and CD0510 - Telecommunication – Permanent as the majority of Engineering activities have shifted to non-deliverables support.

- CD0508 (Electrodes) earned 1% (164 person-hours) of its person hours budget this period for a cumulative of 56% (4,867 of 8,709).
- Telecommunication packages earned 1% (23 person-hours) of its person-hours budget this period. Options to expedite the review and approval of telecommunication deliverables are being considered.

#### 7.1 AREA SYNCHRONOUS CONDENSERS AND ELECTRODES

#### 7.1.1 Engineering (Progress Report)

- CD0534 (Synchronous Condensers) Held value engineering workshops and identified several opportunities for
  cost reductions. All approved options were presented to Bidders in the form of specification changes or
  optional pricing requests. Received another 60 requests for clarification and another 2 addendums issued. Held
  pre-bid meetings.
- CD0508 (Electrode Sites) Majority of deliverables are SLI A1 status; access road at Dowden's Point is constrained by Seal Cove Pond and property boundaries, engineering solutions being developed. Review of electrode count continued and will reach a conclusion in Oct-2013. Engineering information was provided to Permitting for DFO consideration (related to loss of habitat and commitments to create new habitat).
- SD0565 (Marine Geotechnical Investigation) -. Working towards final claim settlement and closeout.

#### 7.1.2 Procurement (Issues and Concerns related with the Area)

 CD0534 (Synchronous Condensers) – All but one Bidder requested an extension. Consequential delays in Earthworks package under review. Consequence of delay in Earthworks completion on site access date for synchronous condenser contractor under review.

#### 7.1.3 Construction (Progress Report)

• Nothing to report this period.

#### 7.1.4 Commissioning

Nothing to report this period.

#### 7.1.5 Area Concerns

Item	Description / Status	Action
01	CBS town councillor has requested another public meeting.	LCP Stakeholder Liaison



Period Ending:	30-Sep-2013
Page:	39 of 83

#### 7.1.6 Activities Planned for the Next Period – October 2013

- CD0534 (Synchronous Condensers) Issue Bid extension and reply to the commercial and technical requests for clarification outstanding; hold workshops with aim to formulate Bid Evaluation Plan.
- CD0508 (Electrodes) Advance the majority of drawings and specifications to Rev B1 status, hold management
  presentation of electrode count, and investigate selected dredging at L'Anse Au Diable for cost reduction
  potential.
- SD0565 (Marine Geotech) Close out.

#### 7.2 AREA CONVERTERS AND TRANSITIONS COMPOUNDS

# 7.2.1 Engineering (Progress Report)

No deliverables outstanding.

# 7.2.2 Procurement (Issues and Concerns related with the Area)

- CD0501 (Converters and Transition Compounds) Bid closed on 26-Jun-2013, technical and commercial evaluations ongoing. Clarification No. 03 issued to Bidders on 24-Sep-2013.
- CD0501-002 (MF Geotechnical) Requested change order to Lab test rocks for C1.
- CH0006 (Bulk Excavation) Muskrat Falls Converter Station Work has potential of not being completed to degree expected which could result in significant work that will need to be done on the site, perhaps during the winter of 2013-2014.
- Infrastructure: Have engineering contractor Jewer Bailey on board. Ray Bailey has made contact with DTW and DTW is providing information to allow assessments to proceed. Labrador field work expected to mobilise on the week of 14-Oct-2013 or 21-Oct-2013.

## 7.2.3 Construction (Progress Report)

• CH0006 (Bulk Excavation) – Muskrat Falls converter station area stalled.

#### 7.2.4 Commissioning

• Nothing to report this period.

#### 7.2.5 Area Concerns

Item	Description / Status	Action
01	Infrastructure timeline challenges	
02	MF Converter Station civil works challenge schedule	

# 7.2.6 Activities Planned for the Next Period – October 2013

• CD0501 (Converters and Transition Compounds) – Continued evaluation and come up with a recommendation of preferred Bidder.



Period Ending:	30-Sep-2013
Page:	40 of 83

- Responses expected on 11-Oct-2013. Bidders in St. John's for an update meeting scheduled on 16-18-Oct-2013.
- Meet with Insurance underwriter on 04-Oct-2013 to define the needs for C3 Fire Protection.

#### 7.3 AREA AC SWITCHYARDS

## 7.3.1 Engineering (Progress Report)

- CD0502 (ac Substations) Various Bidders' clarifications were replied.
- CD0502 (ac Substations) Risk Analysis workshop was held for all Component 3 EPC packages.
- PD0537 (Power Transformers for ac Substations) Technical Evaluation report was submitted.

## 7.3.2 Procurement (Issues and Concerns related with the Area)

- CD0502 (ac Substations) Clarification addenda 04 and 05 were sent to Bidders.
- CD0502 (ac Substations) Bid Evaluation Plan development was circulated for review.
- CD0502 (ac Substations) Pre-bid clarification meetings were held with all Bidders
- SD0564 (CF Camp Services) Contracting strategy was revised based on developments in CD0538 and CD0503.
- CD0503 (Earthworks) Limited Notice to Proceed was issued to recommended Bidder for CF site.
- CD0503 (Earthworks) Kick-off meeting was held with Johnson's Construction for CF site Earthworks.

## 7.3.3 Construction (Progress Report)

CD0538 (CF Accommodation Camp) - Installation of Dorms sections continued.CD0503 (Earthworks) –
 Mobilization of Contractor to Churchill Falls Site took place.

#### 7.3.4 Commissioning

Nothing to report this period.

#### 7.3.5 Area Concerns

Item	Description / Status	Action
01	Delay of award for CD0503 will be a schedule challenge for packages CD0502, CD0534 and CD0501.	Delivery Team is analysing the situation and weighing alternatives.

#### 7.3.6 Activities Planned for the Next Period – October 2013

- CD0503 (Earthworks) Clearing, grubbing and rock excavation will take place
- CD0538 (CF Accommodation Camp) Continue the installation of dorm modules and the kitchen.



Period Ending:	30-Sep-2013
Page:	41 of 83

# 7.4 AREA SYSTEMS INTEGRATION / TELECOMS

## 7.4.1 Engineering (Progress Report)

- CD0509 (Construction Telecom at Muskrat Falls) PCN was approved. Technical documents were updated as per strategy changes.
- CD0510 (Permanent Telecoms) PCN reflecting the strategy changes is awaiting approval impacting the elaboration of Engineering Deliverables (SOW, TS, TDS and Drawings).
- Deliverable Status Total of 51 deliverables. 02 of them in version 00. The others are: 01 in PA, 17 in PB (05 have been reviewed by the Client and comments are being incorporated), 17 in progress, and 04 should be; the remaining 10 will be eliminated.
- Deliverables Engineering Document List is under revision, it will be updated to comply with strategy changes.
- Revised Interface Agreement between CH0031 and CD0510.

# 7.4.2 Procurement (Issues and Concerns related with the Area)

• OPGW-HVdc proposal were evaluated, important concerns regarding characteristics of the proposed FO. Dealing with Bidders to fix these concerns.

## 7.4.3 Construction (Progress Report)

• Nothing to report this period.

#### 7.4.4 Commissioning

Nothing to report this period.

## 7.4.5 Area Concerns

Item	Description / Status	Action
01	CD0509 (Construction Telecom at Muskrat Falls) – Provide service at	Setup the Agreement to provide
	MF on time.	services.
02	CD0509 (Construction Telecom at Muskrat Falls) – LMRS UHF start	Complete detail Engineering by
	with deployment of this system.	mid October 2013.
03	CD0510 (Permanent Telecoms) – Progress on delivery strategy to	Approve the PCN and start
	provide telecommunication services.	dealing with the agreements.

#### 7.4.6 Activities Planned for the Next Period – October 2013

- Release Contracts for services included in CD0509 (Construction Telecom at Muskrat Falls).
- Progress on detail engineering for LMRS and start construction of the system.
- Progress along with the engineering deliverables for CD0510 (Permanent Telecoms).



Period Ending:	30-Sep-2013
Page:	42 of 83

#### 7.5 AREA CONSTRUCTION POWER

## 7.5.1 Engineering (Progress Report)

· Engineering completed

# 7.5.2 Procurement (Issues and Concerns related with the Area)

• Nothing to report this period.

#### 7.5.3 Construction (Progress Report)

 Construction activities at CF(L)Co. for new 125 MVA transformer completed. Existing transformer removed and new 125 MVA transformer, new Transformer Protection, Line Protection and RTU panels installed.

# 7.5.4 Commissioning

 New 125 MVA Transformer, Transformer protection, Line Protection and RTU panels commissioned and put in service at Churchill Falls.

#### 7.5.5 Area Concerns

Item	Description / Status	Action
01	Ground resistance testing is not done at Muskrat Falls station. Needs	Planned to complete by 15-Oct-
	to be done before soil freezes.	2013.

#### 7.5.6 Activities Planned for the Next Period – October 2013

- Resolve the punch list items for Churchill Falls and Muskrat Falls stations.
- CD0512 (Construction Power) Close out of contract.

## 7.6 RISK AND INTERFACE MANAGEMENT

## 7.6.1 Achievement this Period

- Conducted 2 HVdc EPC Packages Risk Workshops
- Conducted HVdc Civil and Infrastructure Risk Workshops
- Conducted HVdc Telecom Risk Workshop
- Progressed CD0501 Converter and Cable Transition Compounds Risk Questionnaire evaluation and issued clarification question to bidders.
- Initiated MFG HVdc Interface workshops for road and marine transport of heavy lift components to MF and SP Sites.
- Formal roll out of LCP Interface Management instance completed including training to the Systems Operations
- Conducted 5 workshops to-date; 69 interface agreements signed.

# CIMFP Exhibit P-01854

# Page 43



# **MONTHLY PROGRESS REPORT**

Period Ending:	30-Sep-2013
Page:	43 of 83

# 7.6.2 **Current Priorities**

- Process, update and issue C3 Risk Register for review of mitigation measures and Risk status.
- Completion of detailed evaluation and scoring of bidder responses to risk questionnaires for packages CD0501 –
   Converters and Cable Transition Compounds, robust interface monitoring process in order to achieve timely reporting of interface status.
- Completion of the Interface Management Plan and Procedures.
- Further empowerment of component interface engineers to facilitate the interface management process within their teams.

# 7.6.3 Issues and Opportunities

- Develop Interface Management approach specific to large HVdc EPC Contracts.
- Road access to Soldiers pond will need further definition as Interface Agreements with the NL Department of Transportation will be required.
- Complete Aconex Interface Management training of all key Operations personnel for all four groups.



Period Ending:	30-Sep-2013
Page :	44 of 83

# SECTION 8. OVERLAND TRANMISSION LINES

#### 8.1 AREA HVAC LINES

## 8.1.1 Engineering (Progress Report)

- CT0319 TL Construction: PREQ issued.
- CT0341 ROW Clearing: Post award follow-on support.
- PT0300 Supply of Conductors: Post award follow-on support.
- PT0301 Supply of Insulators: Post award follow-on support.
- PT0302 Supply of Steel Towers: Post award follow-on support.
- PT0303 Supply of Tower Hardware: Post award follow-on support.
- PT0304 Supply of OPGW: Post award follow-on support.
- PT0307 Supply of Foundations: Post award follow-on support.
- PT0326 Supply of Steel Wires: Post award follow-on support.
- PT0335 Supply of Anchor Materials: Post award follow-on support
- ST0311 Survey Services: Package awarded Post award follow-on support.
- CT0342 HVac Re-terminations and Crossings (Construction sequencing is developed and requires planning and management signoff) Engineering on-going by Nalcor team.
- 735 kV Lines at CF Tower analysis report preparation on-going

#### 8.1.2 Procurement (Issues and Concerns related with the Area)

• Alignment required on HVac re-termination (Soldiers Pond) material sourcing options

## 8.1.3 Construction (Progress Report)

- CT0341 ROW Clearing Clearing commenced and 69 Ha of ROW cleared and accepted to date. East Camp installation complete and is in operation. West Camp installation ongoing.
- CT0354 Construction of marshalling yard is in progress and earth works substantially complete. Manufacturing of the Gen sets and Office building ongoing.

#### 8.1.4 Commissioning

No activity at site

#### 8.1.5 Area Concerns

ltem	Description / Status	Action
01	CT0319 – The Line construction contract is now expected to be awarded by October 2013. Delay in award will impact commencement of Line construction.	Work closely with all stakeholders to expedite the contract award.
02	CT0341 - Clearing contractor producvity well	Work closely with the clearing and assist as required.



Period Ending:	30-Sep-2013
Page :	45 of 83

Item	Description / Status	Action
	below expectations. Also has safety concerns and	Performed a full safety audit. Continue close
	lack of planning capabilities. Schedule delays will	monitoring of the Clearing progress and explore other
	impact line construction.	options.

#### 8.1.6 Activities Planned for the Next Period – October 2013

## **Engineering:**

- CT0319 TL Construction: Support procurement up to award of contract.
- CT0341 ROW Clearing: Post award follow-on support.
- PT0300 Supply of Conductors: Post award follow-on support.
- PT0301 Supply of Insulators: Post award follow-on support.
- PT0302 Supply of Steel Towers: Post award follow-on support.
- PT0303 Supply of Tower Hardware: Post award follow-on support. Witness Mechanical Type tests.
- PT0304 Supply of OPGW: Post award follow-on support.
- PT0307 Supply of Foundations: Post award follow-on support.
- PT0326 Supply of Steel Wires: Post award follow-on support.
- PT0335 Supply of Anchor Materials: Post award follow-on support.
- ST0311 Survey Services: Post award follow-on support
- CT0342 HVac Re-terminations and Crossings (Construction sequencing to be finalized, engineering to continue
- 735 kV Lines at CF Tower analysis report and conductor proximity study (C3) to be finalized and engineering responsibility to be assigned.

#### Procurement (Issues and Concerns related with the Area)

Further discussion required on HVac re-termination (Soldiers Pond) material sourcing options

## **Construction:**

- CT0341 ROW Clearing: Complete mobilization of the west camp and full mobilization of equipment and personnel. Complete 300 Hectares of ROW clearing.
- CT0354 Marshalling Yard: Complete all civil works to receive materials. Complete office installation. Award warehouse building.

#### 8.2 AREA HVDC LINES

#### 8.2.1 Engineering (Progress Report)

- CT0327 TL Construction Section 2: Working towards re-issuing the RFI with new tower types
- CT0346 TL Construction Section 2: Working towards re-issuing the RFI with new tower types
- PT0308 Supply of Foundations: On-going technical bid evaluation.
- PT0328 Supply of Conductors: Procurement support up-to award.



Period Ending:	30-Sep-2013
Page :	46 of 83

- PT0329 Supply of Insulators: Post award follow-on support. Started sample manufacturing for insulator tests.
- PT0330 Supply of Towers: Working on documents for PREQ
- PT0331 Supply of Tower Hardware: Issued RFI.
- PT0334 Supply of Steel Wires: Issued RFP to bidders.
- PT0352 Supply of Anchor Materials: On-going un-priced technical bid evaluation.
- PT0353 Supply of OPGW: Commenced un-priced technical bid evaluation.
- PT0356 Supply of Dampers: On-going un-priced technical bid evaluation.
- ST0312 Survey Services: Engineering working towards RFI.

# 8.2.2 Procurement (Issues and Concerns related with the Area)

- CA's still needed for packages CT0345 Clearing RoW Section 2 and CT0346 Construction TL Section 2.
- Bid list required for package PT0327 Construction TL Section 1.

#### 8.2.3 Construction (Progress Report)

· No activity at site

# 8.2.4 Commissioning

No activity at site

#### 8.2.5 Area Concerns

Item	Description / Status	Action
01	It would be highly beneficial to have the potential construction contractor(s) view the line route before snow this fall, 2013, to obtain a solid understanding a of the terrain and access for better pricing.	Site visit for bidders is tentatively set for Oct 28, 29 and 30.
02	The RFP for clearing of Section 2 is on hold.	RFI submitted and waiting for further direction from senior management on the strategy for the RFP. RFP issue date is now past the baseline date, thus, the schedule may slip if no mitigation taken.
03	PT0331: Type of fitting info for 1.5" guy wire needed from Nalcor	Proceeding with Helix type of fitting, will change later if required.
04	PT0330: Spare tower requirement info needed from Nalcor.	Proceeding with the LNTP, capturing the spares quantities in the PO issuance, if possible.

#### 8.2.6 Activities Planned for the Next Period - October 2013

- CT0327 TL Construction Section 1: Re-issue updated RFI.
- CT0345 TL ROW Clearing Section 2: Merge package with CT0327

# CIMFP Exhibit P-01854

# Page 47



#### MONTHLY PROGRESS REPORT

Period Ending:	30-Sep-2013
Page:	47 of 83

CT0346 – TL Construction – Section 2: Merge package with CT0327

• PT0308 - TL Foundations: Issue PREQ.

• PT0328 - TL Conductors: Issue PREQ.

• PT0329 – TL Insulators: Provide post award follow on support.

• PT0330 - TL Steel Towers: Inspect supplier facilities, issue PREQ, kick-off meeting.

• PT0331 – TL Tower Hardware: Issue RFP.

• PT0334 – TL Steel Wires: Procurement support towards award.

• PT0352 – TL Anchor Materials: Finalize technical bid evaluation. Issue PREQ.

• PT0353 – TL OPGW: Finalize technical bid evaluation.

• PT0356 – TL Dampers: Finalize technical bid evaluation.

• ST0312 – TL Survey Services: Issue RFI.

#### 8.3 RISK AND INTERFACE MANAGEMENT

#### 8.3.1 Achievement this Period

- Completed formal roll out of LCP Interface Management instance.
- Completed PT0353 Optical Ground Wire OPGW 350kV HVdc TL Risk Questionnaire evaluation.
- Completed PT0308 Steel Tower Foundations 350kV HVdc TL Risk Questionnaire evaluation.
- Conducted 1 workshop to-date; 1 interface agreement signed.

# 8.3.2 Current Priorities

- Process, update and issue C4 Risk Register for review of mitigation measures and Risk status.
- Robust interface monitoring process in order to achieve timely reporting of interface status.
- Completion of the Interface Management Plan and Procedures.
- Further empowerment of component interface engineers to facilitate the interface management process within their teams.

#### 8.3.3 Issues and Opportunities

• Review of HVdc Line construction Risk mitigation measures in support of Construction execution plan.



Period Ending:	30-Sep-2013
Page:	48 of 83

# SECTION 9. STRAIT OF BELLE ISLE (SOBI)

#### 9.1 ACHIEVEMENTS THIS PERIOD

- Majority of the early engineering and deliverables documentation for the subsea cable have been received and are being reviewed/finalized. Manufacturing and testing of the qualification cable at the Futtsu Facility is in progress. Batch 1 cable manufacturing commencement scheduled for early 2014.
- Vendors' proposal submissions for the Subsea Rock Supply (LC-SB-011) have been received and are under review, contract award targeted for Q4 2013.
- Vendors' proposals for the Conduit End Connection (LC-SB-036) are under review, contract award target for Q4 2013.
- Bidder evaluation and recommendation completed for packages Drilling Fluids (LC-SB-022) and Directional Drilling (LC-SB-024), contracts award targeted for early September 2013.
- Mobilization of contractor for Drill Rig and Surface Spread (LC-SB-022) planned for late October. Contract awarded to Direct Horizontal Drilling.
- Package for Civil Works (LC-SB-021) awarded to C&T enterprises on 21-Aug-2013. Start of construction targeted on 16-Sep-2013.
- The Iceberg tower (LC-SB-002) remote observation and reporting program is ongoing.

#### 9.2 CURRENT PRIORITIES

- Submarine cable design, supply and install (LC-SB-003), issue and review of engineering manufacturing deliverables and perform Project Risk assessment.
- Subsea rock placement, design and install (LC-SB-011), confirm interfaces with the early engineering for the submarine cable.
- Conduit end connections (LC-SB-036), issue clarifications and negotiate agreement.
- Conduit Punch-Out Verification (LC-SB-034), finalize RFP and issue to approved bidders.
- HDD Directional Drilling Services (LC-SB-024), finalize contract agreement and award.
- Civil Works (LC-SB-021), obtain required permits and licenses for construction and finalize engineering drawings.

#### 9.3 ISSUES & OPPORTUNITIES

- Cable vendor input is required to advance Onshore Area civil works design and HDD requirements.
- Establish spare subsea cable turntable requirements and source suitable location.
- Investigate local benefits opportunities for the SOBI area with Subsea Rock Protection Contractor.



Period Ending: 30-Sep-2013

Page: 49 of 83

# SECTION 10. PROCUREMENT

#### 10.1 PROCUREMENT AND CONTRACTING

- Bid Evaluations ongoing for the following Packages:
  - o CH0032 Supply and Install of Powerhouse Hydro-Mechanical Equipment.
  - o CH0033 Supply and Install of Powerhouse Cranes.
  - o PH0014 Supply of Generator Step-up Transformers.
  - o PH0016 Supply of Generator Circuit Breakers.
  - o SH0018 Provision of Catering, Housekeeping and Janitorial Services.
  - o SH0022 Provision of Fuel Supply and Dispensing Services (MF).
  - CD0501 Supply and Install of Converters and Cable Transition Compounds.
  - CD0503-002 Construction of Earthworks at Various Power Distribution Sites.
  - o PD0537 Supply of Power Transformers at AC Substations.
  - o SD0564 Provision of Camp Services at CF.
  - o CT0319 Construction of 315 kV HVac Transmission Line.
  - o PT0308 Supply of Steel Tower Foundations HVdc Transmission Line.
  - o PT0328 Supply of Line Conductors HVdc Transmission Line.
  - o PT0330 Supply of Steel Towers HVdc Transmission Line.
  - o PT0352 Supply of Anchor Materials for HVdc Transmission Line.
  - o PT0353 Supply of OPGW HVdc Transmission Line.
  - PT0356 Supply of Tower Dampers.
  - SM0700 Provision of General Freight Forwarding Services.
  - o SM0705 Provision of Laboratory Services.
  - SM0709 Provision of Air Transportation Services.
  - o LCEN043 Provision of EEM Programs Labrador.
- Bidder's List Approved for the following Packages:
  - o SH0051 Provision of Building Services.
- RFP's issued for the following Packages:
  - o SH0040 Provision of Garbage Removal and Disposal Services.
  - SH0041 Provision of Ground Transportation Services.
  - PT0334 Supply of Steel Wires HVdc Transmission Line.
- Contracts and PO's awarded for the following Packages:
  - CH0007 Construction of Intakes and Powerhouse, Spillway and Transition Dams (Limited Notice to Proceed was executed with Astaldi Canada Inc.).
  - o CD0503-001 Construction of Earthworks at CF Power Distribution Site.
  - o SD0567 Installation of Geodetic Control Survey.

#### 10.2 MATERIALS MANAGEMENT

• Full time resource located at SARA plant to review bundling and monitor loading of containers.



Period Ending:	30-Sep-2013
Page :	50 of 83

- Conducting complete inventory of materials located in HV-GB.
- Complete review of freight forwarding / yard operation proposals. Decision made to remove management of marshalling yard from the scope of SM0700.
- Reviewing Material Management strategy to support transmission construction.

#### 10.3 EXPEDITING

- Continue to expedite materials and documents.
- Updating of PM+ Tracking module.
- Strategy identified for the expediting, tracking and reporting of all PO/Agreement/Contract vendor documentation.

#### 10.4 LOGISTICS

- First shipment of insulators on PT0301-001 arrived at the port of Montreal, QC and deliveries to Marshalling Yard in Labrador commenced.
- Finalized transport arrangements for first shipment of tower steel for PT0302-001.
- Finalized transport arrangements for first shipment of conductors for PT0300-001.
- First shipments of wire on PT0326-001 delivered to the Marshalling Yard in Labrador.

#### 10.5 RFI – RFP STATISTICS AND CHARTS

Description	Total Packages to Procure	Schedule to Date	Actual to Date
Issue EOI/Pre-qual	108	106	96
Issue Request for Proposal	108	104	85
Issue PO/Contract	108	63	59

## 10.6 CONCERNS

Item	Description / Status	Action
01	CT0341 – Construction of Right of Way Clearing for HVac	Working on Various Mitigation
	Transmission Line (Progress to date of GWF)	plans.

## 10.7 ACTIVITIES PLANNED FOR THE NEXT PERIOD - OCTOBER 2013

- Continue to manage procurement activities to meet project schedule.
- Application for Bidder Selection Process is initiated for the following Packages:
  - Nothing to Report
- Bidder's List is Approved for the following Packages:
  - o PH0035 Supply of Station Service Transformers
  - CH0049 Supply and Install of Log Booms



Period Ending: 30-Sep-2013

Page: 51 of 83

- RFP's issued for the following Packages:
  - o SH0051 Provision of Building Maintenance Services.
  - o PH0015 Supply of Isolated Phase Bus
  - SH0051 Provision of Building Maintenance Services.
  - PT0331 Supply of Tower Hardware for HVdc Transmission Line
- RFP's closing for the following Packages:
  - SH0040 Provision of Garbage Removal and Disposal Services.
  - SH0041 Provision of Ground Transportation Services.
  - o CD0502 Construction of AC Substation and Synchronous Condensers Facilities
  - o PT0334 Supply of Steel Wires HVdc Transmission Line
- Contracts and PO's awarded for the following Packages:
  - o CD0503-002 Construction of Earthworks at Various Power Distribution Sites. (SP)
  - o CH0032 Supply and Install of Powerhouse Hydro-Mechanical Equipment
  - o CT0319 Construction of HVac Transmission Line
  - o PD0537 Supply of Power Transformers for AC Substations
  - o PT0308 Supply of Steel Tower Foundations HVdc Transmission Line.
  - PT0328 Supply of Line Conductors HVdc Transmission Line.
  - o PT0330 Supply of Steel Towers HVdc Transmission Line.
  - o PT0352 Supply of Anchor Materials for HVdc Transmission Line.
  - o PT0356 Supply of Tower Dampers.
  - SH0018 Provision of Catering, Housekeeping and Janitorial Services
  - SH0022 Provision of Fuel Supply and Dispensing Services
  - o SM0700 Provision of General Freight Forwarding Services.
  - o LCEN043 Provision of EEM Programs Labrador



Period Ending:	30-Sep-2013
Page :	52 of 83

## SECTION 11. OTHER PROJECT ACTIVITIES

#### 11.1 ABORIGINAL AFFAIRS

#### **Achievements This Period**

- Initial meeting of the Innu Employee Advisory Committee.
- Initial meeting of the Nalcor-Innu Nation Leadership Committee.
- Meetings with Innu Nation to discuss strategies to address Innu hiring, Innu employee absenteeism and related issues.

# **Current Priorities**

 Reviewing roles of Nalcor and Innu Nation personnel to ensure maximum efficiencies/effectiveness of Innu hiring process.

## **Issues & Opportunities**

Ongoing respectful workplace issues at site require effective management and communications with Innu
Nation.

# 11.1.1 Aboriginal Affairs - Other Aboriginal Groups

## **Achievements This Period**

• Meeting planned with Unamen Shipu and Land and Resource Use Study Anthropologist to finalize the data verification process.

# **Current Priorities**

Finalize outstanding land use studies with Unamen Shipu Provide support for litigation as required.

## **Issues & Opportunities**

Outstanding Reports under Land and Resource Use Study with Unamen Shipu being finalized. Several requests
have been made for the final data. If desired by the community, hold community sessions in Unamen Shipu,
to verify data with Community members.

#### 11.2 NEWFOUNDLAND AND LABRADOR BENEFITS

• Number of person hours on the Project (September 2013) by work location

	Work Type								
Work Location	Construction & Assembly	Engineering & Design	Project Management	Grand Total					
Island	3,251	35,551	31,200	70,002					
Labrador	186,486	10,778	8,348	205,611					
Other Canada	2,117	5,734	-	7,851					
International	25	-	420	445					
Totals	191,879	52,062	39,968	283,909					



Period Ending:	30-Sep-2013
Page :	53 of 83

• Number of person hours on the Project (September 2013) by residency

	Work Type								
Residency	Construction & Assembly	Engineering & Design	Project Management	Grand Total					
Labrador	64,031	1,674	4,040	69,745					
NL	96,747	17,787	30,864	145,398					
Other Canadian	29,393	31,801	3,750	64,943					
Non-Canadian	1,709	800	1,314	3,823					
Totals	191,879	52,062	39,968	283,909					

## **Achievements This Period**

- Ongoing meeting with unions, aboriginal groups, and contractors regarding workforce preparation.
- Participation in LATP board meetings.
- All unions have been provided access and training re MuskratFallsJobs.com. Contractors are provided access as packages are awarded.
- Circulation of childcare resource packages to contractors.
- LCP Gender and Diversity Plan revised as per Government of NL, WPO and Department of Natural Resources and submitted.
- RFPs developed for LATP.

## **Current Priorities**

- Bid Evaluations and Kick off Meetings.
- Solidification of Training Plans.
- Accessing Provincial Apprenticeship Money.
- Monthly Benefits Reports.

## **Issues & Opportunities**

• Optimizing local labour resources for the Project.

# 11.3 HUMAN RESOURCES

## **Achievements This Period**

- Ongoing recruitment for the Lower Churchill Project.
- Ongoing work to finalize Confidentiality Agreement and Project Execution & Technical Services Secondment Agreement.
- Continual progress on the Site Assignment Conditions.

## **Current Priorities**

- Recruitment for the LCP team.
- Finalize Site Assignment Conditions.
- Distributed the Respectful Workplace Standard to all LCP workers.



Period Ending:	30-Sep-2013
Page:	54 of 83

• Deliver the Respectful Workplace Standard presentation to all LCP workers over the next number of weeks in St. John's and Labrador.

#### **Issues & Opportunities**

Ongoing recruitment for the integrated recruitment strategy.

#### 11.4 LABOUR RELATIONS

#### **Achievements This Period**

- Muskrat Falls Employers' Association ("MFEA") monthly meeting held on 11-Sep-2013 involving senior management and human resources. No significant site LR issues. Relations with RDTC are good. No significant issues other than concern recent amount of referrals to arbitration.
- MFEA and RDTC Full Liaison meeting held on 11-Sep-2013. LR described by both sides as positive. RDTC commit to attempt to resolve grievances referred to arbitration and to do better screening of grievances referred to arbitration. RDTC concerned with site referral process. Parties agree to mechanism to resolve.
- First IBEW 1620 and Lower Churchill Transmission Employers' Association ("TCEA") meeting held on 11-Sep-2013. IBEW and TCEA working proactively to assist GWF, being a traditionally non-union contractor, to work in a unionized environment.
- High level Kick-off meeting for CD0503-001 Johnson's Construction on 11-Sep-2013 and follow-up Collective Agreement review meeting between Johnson's Construction, TCEA and IBEW on 12-Sep-2013.
- Labour Relations Agency Liaison Meeting as per SPO held on 18-Sep-2013. Government raised no issues, however, RDTC were not able to attend but did report verbally no significant issues.
- Meeting with 6 Bidders IBEW and LCP commercial team for CD0501 and CD0502 to maximize the probability of productivity and other cost savings built into the Project Agreement being passed on to Nalcor.
- Grievance No. 015 referred to arbitration settled on September 20th and Innu worker referred to site.
- Grievance No. 010 referred to arbitration settled by way of Last Chance Agreement.

# **Current Priorities**

- Respectful Workplace Complaints Status for previous week:
  - 02 Contractor investigations under way.
- Innu Cultural Sensitivity Training to date 927 workers.
- Muskrat Falls labour availability as of 30-Sep-2013, the following trades or classifications are being supplied from outside the Province: blasters, drillers, surveyors, industrial mechanics, insulators and pipefitters.
- Muskrat Falls labour productivity as of 30-Sep-2013, Contractor indicate that there are no issues that are impacting their labour productivity, however absenteeism from Innu workers and Labradorians is a concern.
- Labour Acquisition Plan.
  - Muskrat Falls recruitment and awareness meeting tentatively scheduled for Western Canada and Atlantic Canada on 27-28-Nov-2013, subject to CH0007 input.
  - Transmission recruitment and awareness meetings to be scheduled early 2014, subject to Contractor input.



Period Ending:	30-Sep-2013
Page:	55 of 83

#### **Issues & Opportunities**

- Muskrat Falls Labour Relations:
  - 20 grievances to date 04 considered abandoned, 09 settled, 07 referred to arbitration, 02 of the
     07 referred to arbitration in the process of settlement discussions.
- Transmission Labour Relations:
  - IBEW are considering amending Project Agreement to give Contractors absolute discretion in hiring except powerline technicians and electricians.
  - IBEW have raised the issue of Pension vesting as they have discovered under the current plan a vesting period of 02 years would not benefit many new members. IBEW have a requested Nalcor raising a concern over this issue to facilitate Local 1620 and the International amending pension plan for vesting period or to permit RRSP contributions.
  - GWF reimbursement of Atlantic Surveyors still outstanding.
  - GWF failed to make their September 15th Union Remittances. IBEW granted an extension for filing
    a grievance to provide time to resolve the matter.
  - IBEW 1620 are attempting to assert jurisdiction over Marshalling Yard being constructed on Trans-Labrador Highway, this issue is being reviewed by Nalcor senior management early October.
- Reservoir Clearing Labour Relations:
  - Union and Contractor indicate relations are good. No labour relations issues reported.
  - Approximately 23 unionized workers covered to date.
- Development of Site Standards:
  - Site Access Standard being circulated for signature.
  - Site Medical Standard Morneau Shepell, medical contractor, has prepared a medical standard similar to that utilized in other Provinces, which is to be reviewed by Safety.

#### 11.5 INSURANCE

## **Achievements This Period**

- Market submission completed, awaiting responses from underwriters.
- Independent insurance consultant selected.

#### **Current Priorities**

- Manage underwriting bid submission process.
- Select independent insurance consultant.

# **Issues & Opportunities**

Clarifying Insurance Plan with financial advisors to satisfy lenders.



Period Ending: 30-Sep-2013

Page: 56 of 83

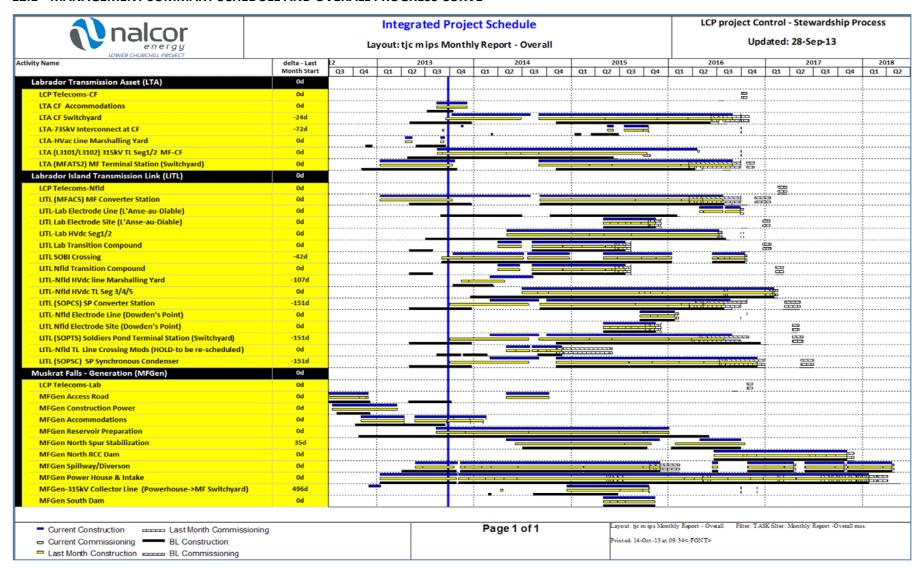
# **SECTION 12. ATTACHMENTS**

- 1. MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE
- 2. MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE MUSKRAT FALLS GENERATION
- 3. MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE LABRADOR ISLAND TRANSMISSION LINK
- 4. MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE LABRADOR TRANSMISSION ASSET
- 5. COST REPORT LOWER CHURCHILL PROJECT PHASE I
- 6. COST REPORT MUSKRAT FALLS GENERATION
- 7. COST REPORT LABRADOR ISLAND TRANSMISSION LINK
- 8. COST REPORT LABRADOR TRANSMISSION ASSET
- 9. COMMITTED COST SUMARY
- 10. PERIOD EXPENDED HOURS BY COMPANY AND LOCATION
- 11. SLI ENGINEERING PROGRESS SUMMARY
- 12. PROJECT PHOTOS



Period Ending:	30-Sep-2013	
Page:	57 of 83	

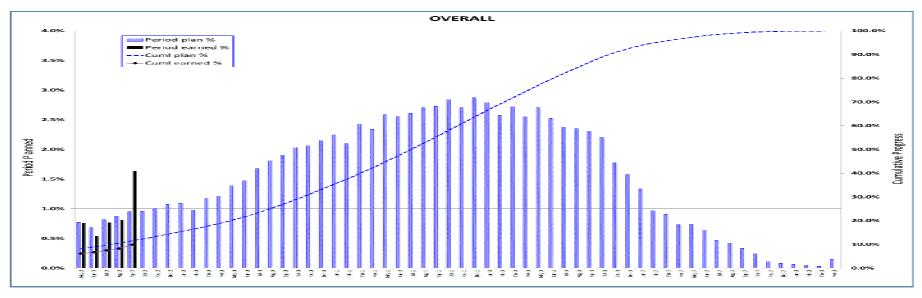
#### 12.1 MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE





Period Ending: 30-Sep-2013

Page: 58 of 83

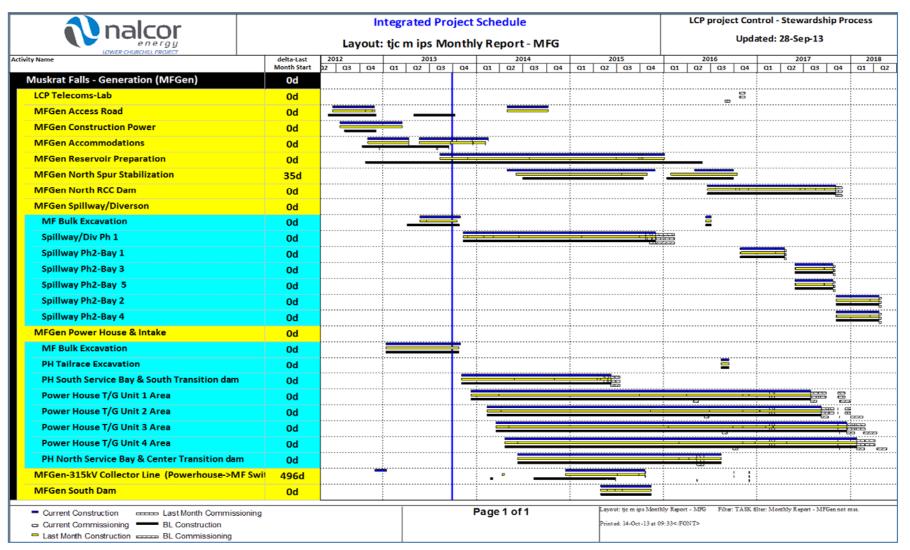


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	Weight			Period %				Cumulative %		
	Factor %		Plan	Earned	Variance		Plan	Earned	Variance	Comments
	Α		В	с	С-В		E	F	F-E	
Labrador Transmission Asset (LTA)	11.0%		1.6%	1.4%	-0.2%		11.9%	7.6%	-4.3%	
Labrador Island Transmission Link (LITL)	42.7%		0.5%	1.2%	0.7%		6.7%	6.5%	-0.2%	
Muskrat Falls Generation (MFGen)	46.3%		1.3%	2.1%	0.8%		15.9%	13.5%	-2.4%	
LCP-Overall	100.0%		1.0%	1.6%	0.6%		11.5%	9.9%	-1.7%	
				Last R	eporting	g Period				
	Weight		Period %		Cumulative %					
	Factor %		Plan	Earned	Variance		Plan	Earned	Variance	Comments
	А		В	с	С-В		E	F	F-E	
Labrador Transmission Asset (LTA)	11.0%		1.6%	0.5%	-1.1%		10.3%	6.2%	-4.1%	
Labrador Island Transmission Link (LITL)	42.7%		0.3%	0.2%	-0.1%		6.2%	5.3%	-0.9%	
Muskrat Falls Generation (MFGen)	46.3%		1.3%	1.4%	0.1%		14.6%	11.4%	-3.2%	
LCP-Overall	100.0%		0.9%	0.8%	-0.1%		10.5%	8.2%	-2.3%	



Period Ending:	30-Sep-2013	
Page:	59 of 83	

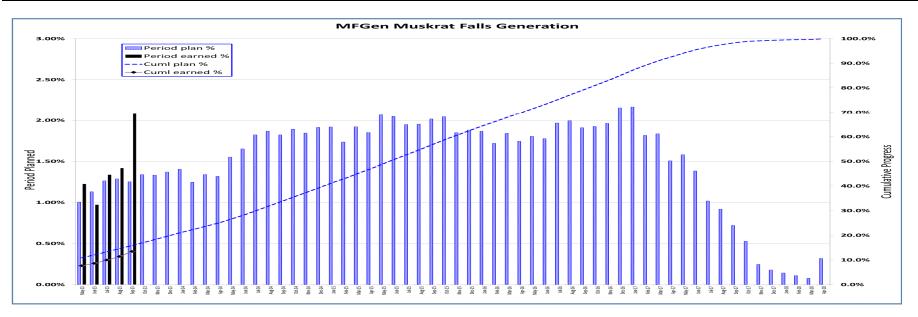
#### 12.2 MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE – MUSKRAT FALLS GENERATION





Period Ending: 30-Sep-2013

Page: 60 of 83

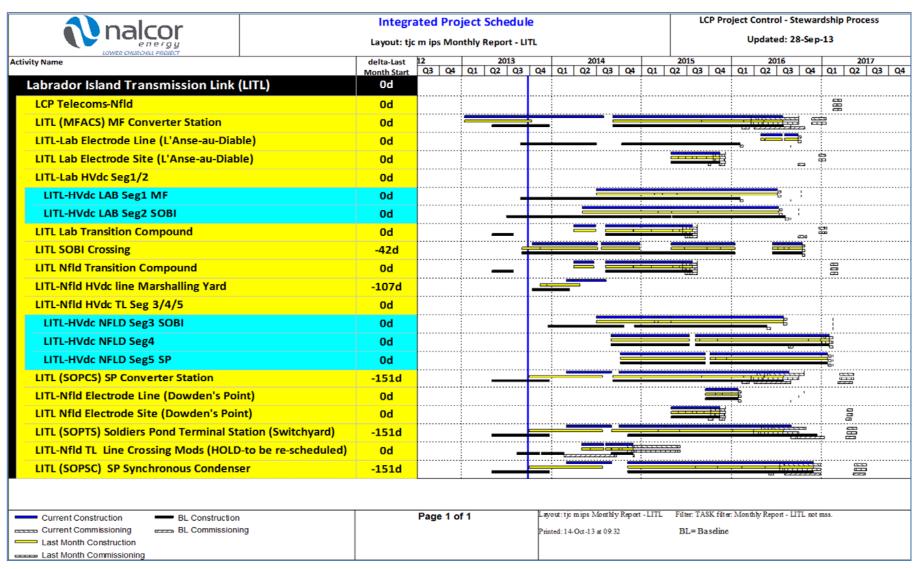


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	Peobor Si		Plen	Lumed	Vertence		Plen	Ermed	Vertence	Comments.
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MPG Camp/Power/Infrastructure	8.6%		7.3%	3.5%	-3.8%		70.8%	44.3%	-26.5%	
MPG Reservoir Proparation (Inci Habitat Comp)	B.4%		1.2%	0.0%			B.156	0.0%	-8.1%	
MPC Spillmay & Cates	8.5%		0.3%	1.3%	1.0%	Ш	0.8%	1.696	Q.886	
MPC North Sper Stelditztken	3.0%		0.0%	0.0%	0.0%		0.096	0.098	0.056	
MFG North Danr	5.7%		6.0%	9.0%	6.0%	Ш	0.0%	0.096	0.0%	
MPC Founchouse & Intake	57.9%		0.896	0.5%	0.1%		3.0%	3.7%	0.7%	
MPS South Dum	1.4%		0.098	0.096	0.0%	Ш	0.0%	0.0%	0.0%	
MFG Misc	8.3%		0.7%	6.2%	5.5%	Ш	72.9%	30.4%	-19.5%	ind engineering
MFGen TOTAL	100.0%		1.3%	1.3%	0.0%		13.3%	10.0%	-3.3%	
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	Weight			Perfect 16			0	amaletiev Y		
	Pector 5		Plan	Semes	Variance		Pinn	Earned	Verlance	Comments
	A		В.	E	G-B		E	F	М	
MPG Camp/Power/infrastrecture	8.6%		7.1%	2.896	-4.5%		63.5%	40.5%	-22.7%	
MPS Reservoir Propuration (Incl Habitat Comp)	8.4%		1.1%	9.0%	-11%		7.096	0.098	-7.031	
MFQ Spillmay & Gates	8.5%		0.2%	0.2%	0.1%		0.5%	0.296	-0.2%	
NPS North Sper Stabilization	5.0%		0.096	0.096	0.0%		G.0%	0.098	Q.096	
MFB Horth Dans	5.7%		0.0%	9.0%	9.0%		0.0%	15.096	0.0%	
NFT Powerhouse & Intels	37.0%		0.6%	1.1%	0.5%		2.2%	2.266	0.6%	
NPC South Com	1.4%		0.096	0.0%	0.0%		0.0%	0.0%	0.0%	
MPC Misc	6.5%		0.7%	1.3%	0.6%		72.2%	33.29	-19.0%	
MEGen TOTAL	100 0%		1 196	1 096	-0.1%		12 1%	8 6%	-3.4%	T .



Period Ending: 30-Sep-2013
Page: 61 of 83

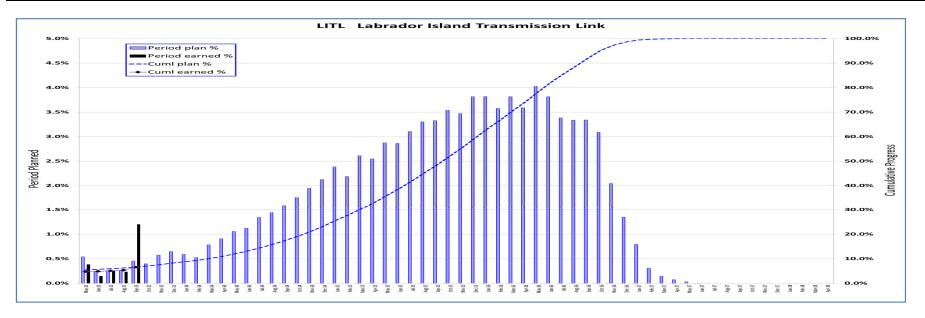
#### 12.3 MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE – LABRADOR - ISLAND TRANSMISSION LINK





Period Ending: 30-Sep-2013

Page: 62 of 83



	LITL F	rogres	s Tab	le 20	13 Sep			
			This Re	porting I	Period			
	Weight		Period %			Cumulative :	%	
	Factor %	Plan	Earned	Variance	Plan	Earned	Variance	Comments
	Α	В	с	С-В	E	F	F-E	
LITL Muskrat Falls Converter	9.1%	0.5%	0.1%	-0.4%	2.5%	0.3%	-2.2%	
LITL Soldiers Pond Converter	9.7%	0.5%	0.0%	-0.5%	2.5%	0.0%	-2.5%	
LITL HVdc Transmission Line Seg 1/2	19.0%	0.3%	0.0%	-0.3%	0.7%	0.0%	-0.7%	
LITL HVdc Transmission Line Seg 3/4/5	26.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LITL Electrode Sites	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LITL Transition Compounds	2.4%	0.7%	0.0%	-0.7%	3.6%	0.0%	-3.6%	
LITL SOBI Cable Crossing	16.6%	1.0%	7.0%	6.0%	17.8%	25.5%	7.7%	
LITL Soldiers Pond Switchyard	5.3%	0.4%	0.0%	-0.4%	2.2%	0.0%	-2.2%	
LITL Soldiers Pond Synchronous Condensors	5.5%	0.4%	0.0%	-0.4%	2.2%	0.0%	-2.2%	
LITL Misc	5.1%	1.2%	0.6%	-0.6%	54.3%	44.4%	-9.9%	incl eng
LITL TOTAL	100.0%	0.4%	1.2%	0.8%	6.7%	6.5%	-0.1%	
			Last Re	porting I	Period			
	Weight		Period %			Cumulative !	%	
	Factor %	Plan	Earned	Variance	Plan	Earned	Variance	Comments
	А	В	С	С-В	E	F	F-E	
LITL Muskrat Falls Converter	9.1%	0.5%	0.1%	-0.4%	2.0%	0.2%	-1.8%	
LITL Soldiers Pond Converter	9.7%	0.5%	0.0%	-0.5%	2.0%	0.0%	-2.0%	
LITL HVdc Transmission Line Seg 1/2	19.0%	0.2%	0.0%	-0.2%	0.4%	0.0%	-0.4%	
LITL HVdc Transmission Line Seg 3/4/5	26.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LITL Electrode Sites	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
LITL Transition Compounds	2.4%	0.7%	0.0%	-0.7%	2.9%	0.0%	-2.9%	
LITL SOBI Cable Crossing	16.6%	0.0%	0.5%	0.5%	16.8%	18.5%	1.7%	
LITL Soldiers Pond Switchyard	5.3%	0.5%	0.0%	-0.5%	1.8%	0.0%	-1.8%	
LITL Soldiers Pond Synchronous Condensors	5.5%	0.5%	0.0%	-0.5%	1.8%	0.0%	-1.8%	
LITL Misc	5.1%	1.2%	2.8%	1.6%	53.1%	43.8%	-9.3%	
LITL TOTAL	100.0%	0.3%	0.2%	-0.1%	6.2%	5.3%	-0.9%	



Period Ending:	30-Sep-2013	
Page :	63 of 83	

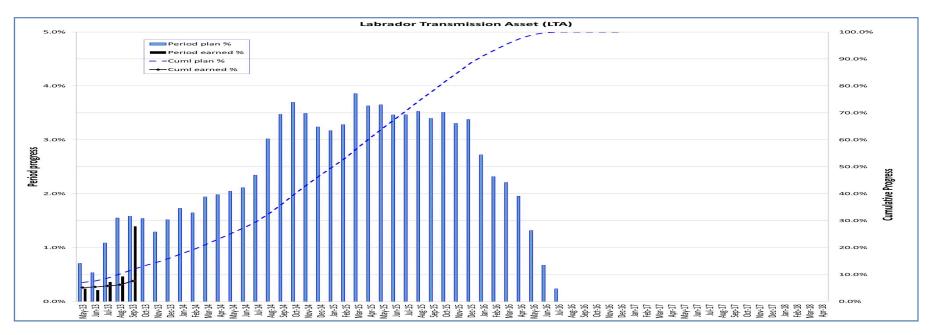
# 12.4 MANAGEMENT SUMMARY SCHEDULE AND OVERALL PROGRESS CURVE – LABRADOR TRANSMISSION ASSET

nalcor	Inte	egrated Project	Schedu	ıle				LCP pr		ntrol - Steward	•	
energy	Layout	t: tjc m ips Monthly i	Report - LT	A			Updated: 28-Sep-13					
ivity Name		delta - Last	12	2013			014	201		2016	201	
Laborator Torrespication Acces (I	TA)	Month Start	Q3 Q4	Q1  Q2  Q	3 Q4	Q1  Q2	Q3 Q4	Q1  Q2  C	Q3  Q4	Q1 Q2 Q3 Q	24  Q1  Q2	Q3
Labrador Transmission Asset (L	.IA)	Od										
LCP Telecoms-CF		0d			.1					- 6		
LTA CF Accommodations		0d		_								
LTA CF Switchyard		-24d		_							1	
LTA-735kV Interconnect at CF		-72d			Τ.	•		- <b>-</b>	=	, 1		
LTA-HVac Line Marshalling Yard		0d	-	=	0							
LTA (L3101/L3102) 315kV TL Se	g1/2 MF-CF	0d										
LTA (L3101/L3102) 315kV TL Segme	ent 1	0d						: b				
LTA (L3101/L3102) 315kV TL Segme	ent 2	20d		_					—ъ	<b>-</b> , :		
LTA (MFATS2) MF Terminal Stat	tion (Switchyard)	0d	_		7						3	
■ Current Construction ■ Last Month Constructio	n BL Construction	F	age 1 of	1		Layout: tjc t	nipa Monthly i	kgon-UA 1	Films TASK 6	ilar. Mansh ly Report-L	TAnetma.	



**Period Ending:** 30-Sep-2013 64 of 83

Page:



LTA Progress Table 2013 Sep										
This Reporting Period										
	Weight		Period %			(	umulative	%		
	Factor %	Plan	Earned	Variance		Plan	Earned	Variance		Comments
	Α	В	С	С-В		E	F	F-E		
LTA CF Accommodations	1.4%	17.6%	41.7%	24.1%		36.9%	51.3%	14.4%		
LTA HVac Transmission Line Seg1/2 - MF to CF	53.3%	1.9%	0.3%	-1.6%		6.0%	0.4%	-5.6%		
LTA Churchill Falls Switchyard	22.7%	0.5%	0.0%	-0.5%		2.6%	0.0%	-2.6%		
LTA Muskrat Falls Switchyard	15.3%	0.8%	0.7%	-0.1%		7.3%	2.6%	-4.7%		
LTA Misc	7.3%	1.2%	7.4%	6.2%		87.6%	85.7%	-1.9%		includes engineering
LTA TOTA	100.0%	1.6%	1.4%	-0.2%		11.8%	7.6%	-4.2%		
			Last Ro	eporting P	eric	od				
	Weight		Period %			Cı	ımulative	e %		
	Factor %	Plan	Earned	Variance		Plan	Earned	Variance		Comments
	Α	В	С	С-В		E	F	F-E		
LTA CF Accommodations	1.4%	14.0%	9.6%	-4.4%		19.3%	9.6%	-9.7%		
LTA HVac Transmission Line Seg1/2 - MF to CF	53.3%	2.0%	0.1%	-1.9%		4.1%	0.1%	-4.0%		
LTA Churchill Falls Switchyard	22.7%	0.5%	0.0%	-0.5%		2.1%	0.0%	-2.1%		
LTA Muskrat Falls Switchyard	15.3%	0.7%	0.8%	0.1%		6.5%	1.9%	-4.6%		
LTA Misc	7.3%	1.1%	2.1%	1.0%		86.4%	78.3%	-8.1%		
LTA TOTAL	100.0%	1.6%	0.5%	-1.1%		10.3%	6.2%	-4.1%		



Period Ending: 30-Sep-2013

Page: 65 of 83

#### 12.5 COST REPORT – LOWER CHURCHILL PROJECT PHASE I

Phase I Monthly Incurred Cost Report - Muskrat Falls Generation, Labrador-Island TX Link, Lab. TX Asset

NALCOR ENERGY - Lower Churchill Project

COST IN CAD (\$ Thousands)

For Period Ending: 30-Sept-2013

		А	B	C = A + B	Incurred	Costs	E	E	
		Original Control Budget (OCB)	Approved Project Changes	Current Control Budget (CCB)	Current Period	D Project-to-Date	Final Forecast Cost (FFC)	Variance from Prev. Forecast	G= E - C Variance from CCB
100	NE-LCP Owners Team, Admin and EPCM Services	\$713,272	\$6,300	\$719,572	\$10,005	\$261,880	\$720,204	\$10,300	\$632
200	Feasibility Engineering	\$46,847	\$1,825	\$48,672	\$637	\$41,297	\$50,983	\$727	\$2,311
300	<b>Environmental &amp; Regulatory Compliance</b>	\$55,339	\$2,385	\$57,724	\$780	\$18,910	\$51,835	-\$8,362	-\$5,889
400	Aboriginal Affairs	\$15,747	\$40	\$15,787	\$388	\$4,479	\$18,180	-\$833	\$2,393
500	Procurement & Construction	\$4,960,329	\$157,500	\$5,117,829	\$67,437	\$381,887	\$5,118,365	\$2,258	\$536
900	Commercial & Legal	\$43,103	\$613	\$43,716	\$355	\$19,571	\$51,554	\$7,004	\$7,838
990	Contingency	\$367,852	-\$168,662	\$199,190	\$0	\$0	\$191,368	-\$11,095	-\$7,822
	CAPEX Total:	\$6,202,490	\$0	\$6,202,490	\$79,602	\$728 <b>,</b> 024	\$6,202,490	\$0	\$0
910	Interest Charges	\$9,737	\$0	\$9,737	\$0	\$8,271	\$8,271	-\$193	-\$1,466
998	Project Debt Financing	\$171,199	\$0	\$171,199	\$862	\$11,459	\$160,530	-\$3,909	-\$10,669
999	Other Project Costs	\$410	\$0	\$410	\$0	\$344	\$349	\$184	-\$60
	LCP Phase I Total:	\$6,383,836	\$0	\$6,383,836	\$80,464	\$748,098	\$6,371,640	-\$3,917	-\$12,197

#### **Cost Report Notes**

- (1) Although Project Sanction (Decision Gate 3) for Phase I occurred on Dec. 17, 2012 cost reporting is done on a monthly rather than a daily basis therefore for cost reporting purposes costs incurred on or before Nov. 30, 2012 are considered Pre-Sanction costs and costs incurred on or after Dec. 1, 2012 are considered Post-Sanction incurred costs for LCP Phase I total: \$311,775,446
- (2) Some Environmental & Aboriginal Affairs costs are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.
- (3) Historical Interest Charges are allocated across the Muskrat Falls (12.14%), LITL (9.90%), LTA (0.00%), Gull Island (76.88%) and the Maritime Link (1.08%)
- (4) Project Debt Financing costs are allocated across the the Muskrat Falls (44.04%), LITL (50.96%), LTA (5.00%) components only.
- (5) Other Project Costs are related to the Upper Churchill Redress and are are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.

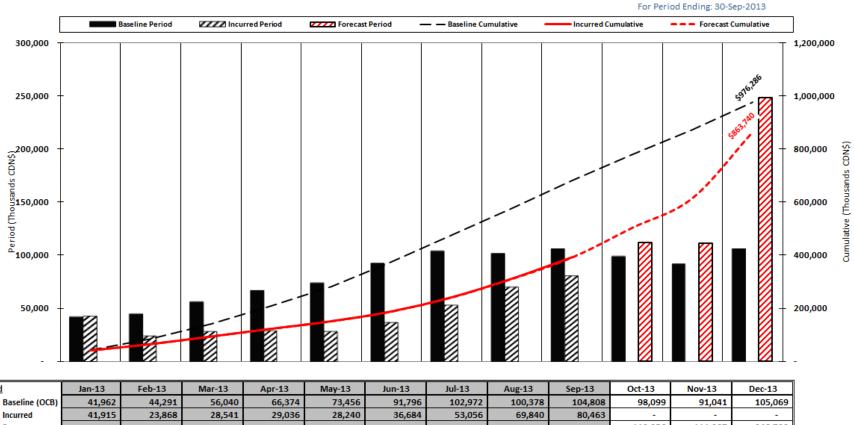


Period Ending: 30-Sep-2013

Page: 66 of 83

# LCP Phase I - Muskrat Falls Generation, Lab. Island Transmission Link, Lab Tx Asset

Current Year Control Budget (Baseline), Incurred and Forecast Cost



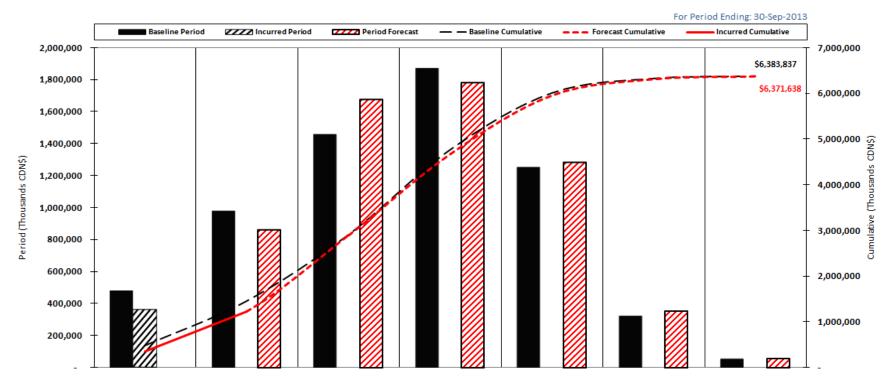
Period	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
Baseline (OCB)	41,962	44,291	56,040	66,374	73,456	91,796	102,972	100,378	104,808	98,099	91,041	105,069
Incurred	41,915	23,868	28,541	29,036	28,240	36,684	53,056	69,840	80,463	-	-	-
Forecast		•	٠	-	٠	٠	•	-	•	112,056	111,307	248,733
<u>Cumulative</u>	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
- Baseline (OCB)	41,962	86,253	142,293	208,667	282,123	373,919	476,891	577,269	682,077	780,176	871,217	976,286
Incurred	41,915	65,784	94,324	123,360	151,600	188,284	241,341	311,181	391,644	-	-	-
- Forecast										503,700	615,007	863,740



Period Ending: 30-Sep-2013

Page: 67 of 83

# LCP Phase I - Muskrat Falls Generation, Lab. Island Transmission Link, Lab Tx Asset Annual Control Budget (Baseline), Incurred and Forecast Cost



<u>Period</u>	History	2013	2014	2015	2016	2017	2018
Baseline (OCB)	476,181	976,286	1,451,708	1,864,592	1,245,299	318,906	50,864
/////// Incurred	356,454	-	-	-	-	-	-
Forecast	-	863,740	1,673,071	1,781,591	1,281,349	355,350	60,081
<u>Cumulative</u>	History	2013	2014	2015	2016	2017	2018
- Baseline (OCB)	476,181	1,452,467	2,904,175	4,768,767	6,014,066	6,332,972	6,383,837
Incurred	356,454						
Forecast		1,220,195	2,893,266	4,674,857	5,956,207	6,311,557	6,371,638



Period Ending: 30-Sep-2013

Page: 68 of 83

#### 12.6 COST REPORT – MUSKRAT FALLS GENERATION

Monthly Incurred Cost Report - Muskrat Falls Generation

NALCOR ENERGY - Lower Churchill Project

COST IN CAD (\$ Thousands)

For Period Ending: 30-Sept-2013

	А	D	C = A + B	Incurred	Costs	E		
	Original Control Budget (OCB)	Approved Project Changes	Changes Budget Current Period		D Project-to-Date	Final Forecast Cost (FFC)	Variance from Prev. Forecast	G= E - C Variance from CCB
100 NE-LCP Owners Team, Admin and EPCM Services	\$369,386	\$10,759	\$380,145	\$6,246	\$155,417	\$375,335	\$12,977	-\$4,810
200 Feasibility Engineering	\$5,784	\$486	\$6,270	\$185	\$19,309	\$22,295	-\$681	\$16,025
300 Environmental & Regulatory Compliance	\$28,883	\$2,385	\$31,268	\$729	\$10,771	\$28,499	-\$5,100	-\$2,769
400 Aboriginal Affairs	\$13,314	\$40	\$13,354	\$388	\$4,030	\$16,956	-\$670	\$3,602
500 Procurement & Construction	\$2,237,215	\$108,860	\$2,346,075	\$61,517	\$325,307	\$2,336,763	\$4,043	-\$9,312
900 Commercial & Legal	\$20,021	-\$833	\$19,188	\$168	\$9,775	\$23,298	\$3,235	\$4,110
990 Contingency	\$226,849	-\$122,590	\$104,259	\$0	\$0	\$97,411	-\$13,872	-\$6,848
CAPEX Total:	\$2,901,451	-\$893	\$2,900,558	\$69,233	\$524,609	\$2,900,558	-\$68	\$0
910 Interest Charges	\$5,366	\$0	\$5,366	\$0	\$4,559	\$4,559	\$716	-\$807
998 Project Debt Financing	\$74,930	-\$37	\$74,893	\$373	\$5,064	\$70,627	\$2,428	-\$4,266
999 Other Project Costs	\$410	\$0	\$410	\$0	\$344	\$349	\$184	-\$61
Component Total:	\$2,982,156	-\$930	\$2,981,226	\$69,606	\$534,576	\$2,976,093	\$3,260	-\$5,133

<sup>(1)</sup> Although Project Sanction (Decision Gate 3) for Phase I occurred on Dec. 17, 2012 cost reporting is done on a monthly rather than a daily basis therefore for cost reporting purposes costs incurred on or before Nov. 30, 2012 are considered Pre-Sanction costs and costs incurred on or after Dec. 1, 2012 are considered Post-Sanction incurred costs for Muskrat Falls Generation total: \$182,491,058

<sup>(2)</sup> Some Environmental & Aboriginal Affairs costs are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.

<sup>(3)</sup> Historical Interest Charges are allocated across the Muskrat Falls (12.14%), LITL (9.90%), LTA (0.00%), Gull Island (76.88%) and the Maritime Link (1.08%)

<sup>(4)</sup> Project Debt Financing costs are allocated across the the Muskrat Falls (44.04%), LITL (50.96%), LTA (5.00%) components only.

<sup>(5)</sup> Other Project Costs are related to the Upper Churchill Redress and are are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.

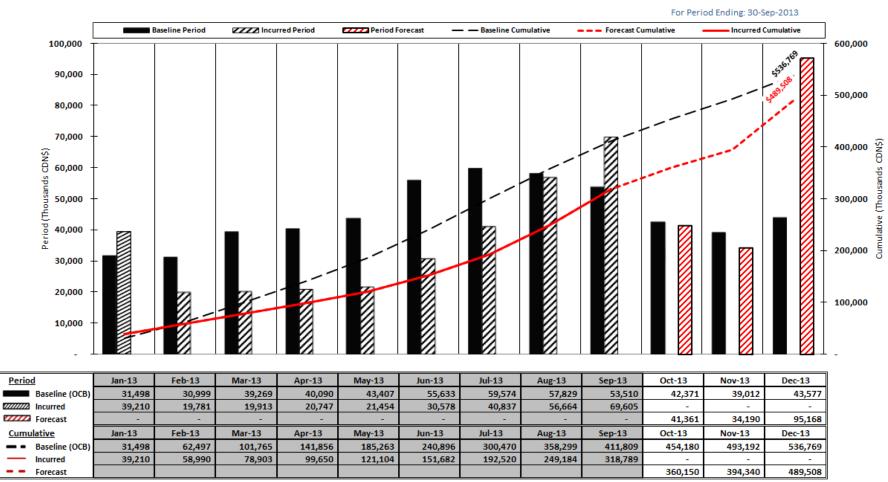


Period Ending: 30-Sep-2013

Page: 69 of 83

# LCP Phase I - Muskrat Falls Generation

Current Year Control Budget (Baseline), Incurred and Forecast Cost

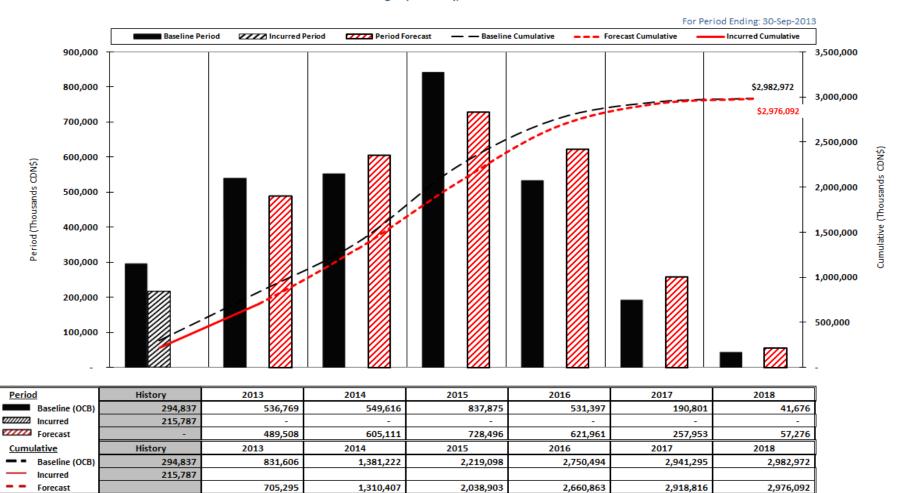




Period Ending:	30-Sep-2013	
Page:	70 of 83	

# LCP Phase I - Muskrat Falls Generation

Annual Control Budget (Baseline), Incurred and Forecast Cost





Period Ending: 30-Sep-2013

Page: 71 of 83

# 12.7 COST REPORT – LABRADOR - ISLAND TRANSMISSION LINK

Monthly Incurred Cost Report - Labrador-Island Transmission Link

NALCOR ENERGY - Lower Churchill Project

COST IN CAD (\$ Thousands)

For Period Ending: 30-Sept-2013

		А	D.	C = A + B	Incurred	Costs		-	
		Original Control Budget (OCB)	Approved Project Changes	Current Control Budget (CCB)	Current Period	D Project-to-Date	Final Forecast Cost (FFC)	Variance from Prev. Forecast	G= E - C Variance from CCB
100	NE-LCP Owners Team, Admin and EPCM Services	\$254,581	\$7,454	\$262,035	\$2,294	\$69,537	\$260,359	-\$7,563	-\$1,676
200	Feasibility Engineering	\$38,824	\$1,149	\$39,973	\$227	\$21,405	\$26,445	\$1,371	-\$13,528
300	<b>Environmental &amp; Regulatory Compliance</b>	\$25,751	\$0	\$25,751	\$49	\$7,896	\$22,469	-\$3,378	-\$3,282
400	Aboriginal Affairs	\$2,244	\$0	\$2,244	\$0	\$449	\$1,224	-\$163	-\$1,020
500	Procurement & Construction	\$2,180,133	\$820	\$2,180,953	\$1,375	\$30,149	\$2,192,696	-\$212	\$11,743
900	Commercial & Legal	\$20,603	\$1,892	\$22,495	\$131	\$9,026	\$25,835	\$3,689	\$3,340
990	Contingency	\$86,628	-\$9,855	\$76,773	\$0	\$0	\$81,196	\$6,328	\$4,423
	CAPEX Total:	\$2,608,764	\$1,460	\$2,610,224	\$4,076	\$138,462	\$2,610,224	\$74	\$0
910	Interest Charges	\$4,372	\$0	\$4,372	\$0	\$3,712	\$3,712	-\$909	-\$660
998	Project Debt Financing	\$79,674	-\$16	\$79,658	\$401	\$5,219	\$73,358	-\$4,858	-\$6,300
999	Other Project Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Component Total:	\$2,692,809	\$1,444	\$2,694,253	\$4,477	\$147,393	\$2,687,294	-\$5,693	-\$6,959

<sup>(1)</sup> Although Project Sanction (Decision Gate 3) for Phase I occurred on Dec. 17, 2012 cost reporting is done on a monthly rather than a daily basis therefore for cost reporting purposes costs incurred on or before Nov. 30, 2012 are considered Pre-Sanction costs and costs incurred on or after Dec. 1, 2012 are considered Post-Sanction incurred costs for the Labrador Island Transmission Link total: \$108,441,166

<sup>(2)</sup> Historical Interest Charges are allocated across the Muskrat Falls (12.14%), LITL (9.90%), LTA (0.00%), Gull Island (76.88%) and the Maritime Link (1.08%)

<sup>(3)</sup> Project Debt Financing costs are allocated across the the Muskrat Falls (44.04%), LITL (50.96%), LTA (5.00%) components only.

<sup>(4)</sup> Other Project Costs are related to the Upper Churchill Redress and are are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.

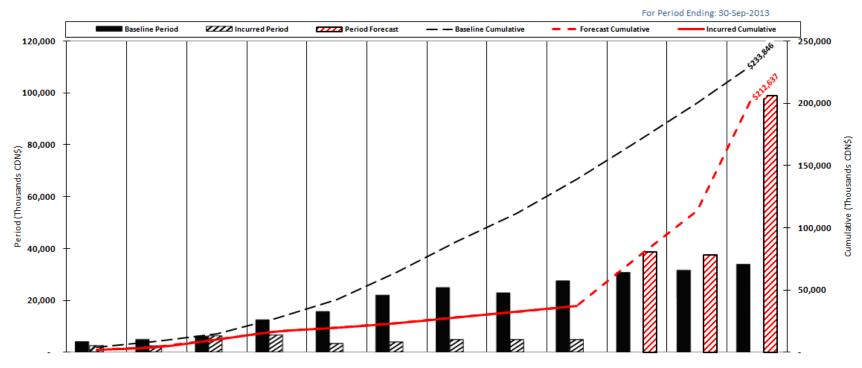


Period Ending: 30-Sep-2013

Page: 72 of 83

# LCP Phase I - Labrador-Island Transmission Link

Current Year Control Budget (Baseline), Incurred and Forecast Cost



<u>Period</u>	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
Baseline (OCB)	3,972	4,916	5,823	12,379	15,475	21,773	24,732	22,668	27,135	30,254	31,081	33,637
/////// Incurred	2,213	2,136	6,040	6,354	3,034	3,618	4,620	4,624	4,476	-	-	-
Forecast	-	-	-	-	-	-	-	-	-	38,822	37,580	99,120
<u>Cumulative</u>	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
■ ■ Baseline (OCB)	3,972	8,888	14,711	27,090	42,565	64,339	89,071	111,738	138,874	169,127	200,208	233,846
Incurred	2,213	4,348	10,388	16,742	19,776	23,394	28,014	32,638	37,115			
Forecast										75,937	113,517	212,637

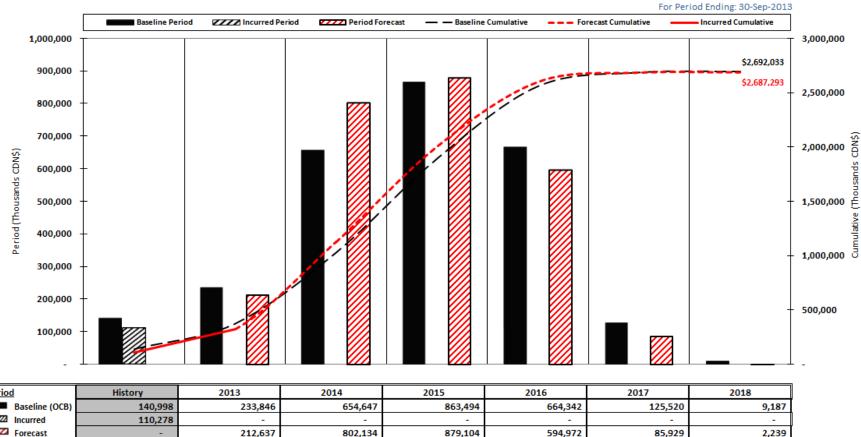


Period Ending: 30-Sep-2013

Page: 73 of 83

# LCP Phase I - Labrador Island Transmission Link

Annual Control Budget (Baseline), Incurred and Forecast Cost



Period	History	2013	2014	2015	2016	2017	2018
Baseline (OCB)	140,998	233,846	654,647	863,494	664,342	125,520	9,187
/////// Incurred	110,278	-	-	•	•	-	-
Forecast	•	212,637	802,134	879,104	594,972	85,929	2,239
<u>Cumulative</u>	History	2013	2014	2015	2016	2017	2018
- Baseline (OCB)	140,998	374,843	1,029,490	1,892,984	2,557,326	2,682,846	2,692,033
Incurred	110,278						
Forecast		322,915	1,125,049	2,004,152	2,599,124	2,685,054	2,687,293



Period Ending: 30-Sep-2013

Page: 74 of 83

#### 12.8 COST REPORT – LABRADOR TRANSMISSION ASSET

**Monthly Incurred Cost Report - Labrador Transmission Asset** 

**NALCOR ENERGY - Lower Churchill Project** 

COST IN CAD (\$ Thousands)

For Period Ending: 30-Sept-2013

	А	D	C = A + B	Incurred	Costs		E	
	Original Control Budget (OCB)	Approved Project Changes	Current Control Budget (CCB)	Current Period	D Project-to-Date	Final Forecast Cost (FFC)	Variance from Prev. Forecast	G= E - C Variance from CCB
100 NE-LCP Owners Team, Admin and EPCM Services	\$89,306	-\$11,913	\$77,393	\$1,465	\$36,926	\$84,510	\$4,886	\$7,117
200 Feasibility Engineering	\$2,240	\$190	\$2,430	\$225	\$583	\$2,243	\$36	-\$187
300 Environmental & Regulatory Compliance	\$705	\$0	\$705	\$2	\$243	\$867	\$116	\$162
400 Aboriginal Affairs	\$188	\$0	\$188	\$0	\$0	\$0	\$0	-\$188
500 Procurement & Construction	\$542,981	\$47,820	\$590,801	\$4,545	\$26,431	\$588,906	-\$1,573	-\$1,895
900 Commercial & Legal	\$2,479	-\$446	\$2,033	\$56	\$770	\$2,421	\$80	\$388
990 Contingency	\$54,375	-\$36,217	\$18,158	\$0	\$0	\$12,761	-\$3,552	-\$5,397
CAPEX Total:	\$692,275	-\$566	\$691,709	\$6,293	\$64,953	\$691,709	-\$7	\$0
910 Interest Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
998 Project Debt Financing	\$16,596	\$53	\$16,649	\$88	\$1,176	\$16,545	-\$1,479	-\$104
999 Other Project Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Component Total:	\$708,871	-\$513	\$708,358	\$6,381	\$66,129	\$708,254	-\$1,486	-\$104

<sup>(1)</sup> Although Project Sanction (Decision Gate 3) for Phase I occurred on Dec. 17, 2012 cost reporting is done on a monthly rather than a daily basis therefore for cost reporting purposes costs incurred on or before Nov. 30, 2012 are considered Pre-Sanction costs and costs incurred on or after Dec. 1, 2012 are considered Post-Sanction incurred costs for the Labrador Transmission Asset total: \$20,823,222

<sup>(2)</sup> Historical Interest Charges are allocated across the Muskrat Falls (12.14%), LITL (9.90%), LTA (0.00%), Gull Island (76.88%) and the Maritime Link (1.08%)

<sup>(3)</sup> Project Debt Financing costs are allocated across the the Muskrat Falls (44.04%), LITL (50.96%), LTA (5.00%) components only.

<sup>(4)</sup> Other Project Costs are related to the Upper Churchill Redress and are are allocated between Gull Island and Muskrat Falls on a 70/30 basis with 70% being applied to Gull Island and 30% to Muskrat Falls.

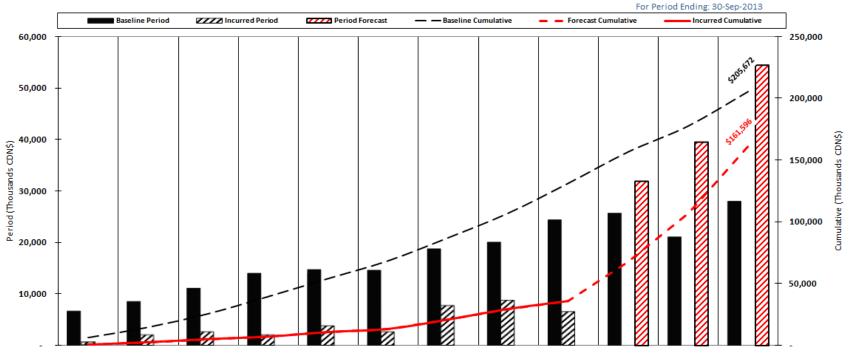


Period Ending: 30-Sep-2013

Page: 75 of 83

# LCP Phase I - Labrador Transmission Assets

Current Year Control Budget (Baseline), Incurred and Forecast Cost



<u>Period</u>	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
Baseline (OCB)	6,493	8,375	10,949	13,904	14,574	14,390	18,665	19,882	24,163	25,474	20,948	27,855
/////// Incurred	493	1,952	2,588	1,935	3,752	2,488	7,598	8,552	6,381			
Forecast										31,873	39,537	54,446
<u>Cumulative</u>	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13
- Baseline (OCB)	6,493	14,868	25,817	39,721	54,295	68,685	87,350	107,232	131,395	156,869	177,817	205,672
Incurred	493	2,445	5,034	6,968	10,720	13,208	20,807	29,358	35,740	-	-	-
Forecast										67,613	107,150	161,596

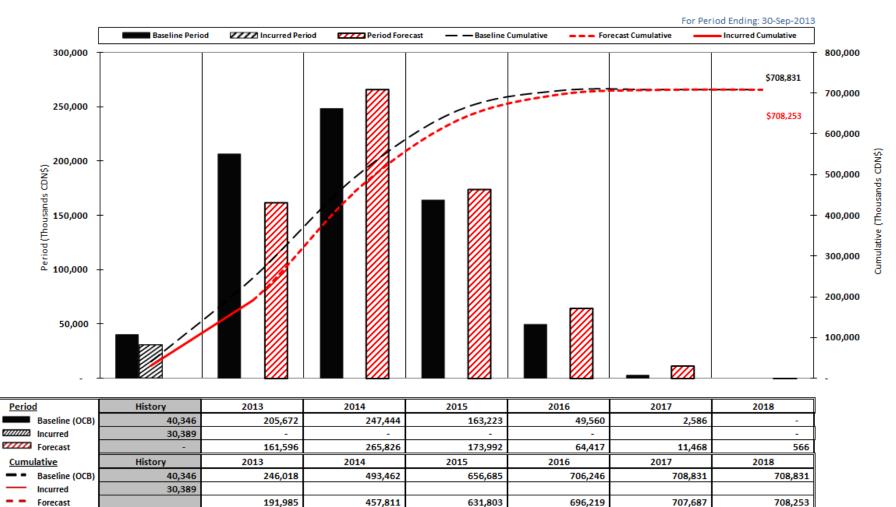


Period Ending: 30-Sep-2013

Page: 76 of 83

# LCP Phase I - Labrador Transmission Asset

Annual Control Budget (Baseline), Incurred and Forecast Cost





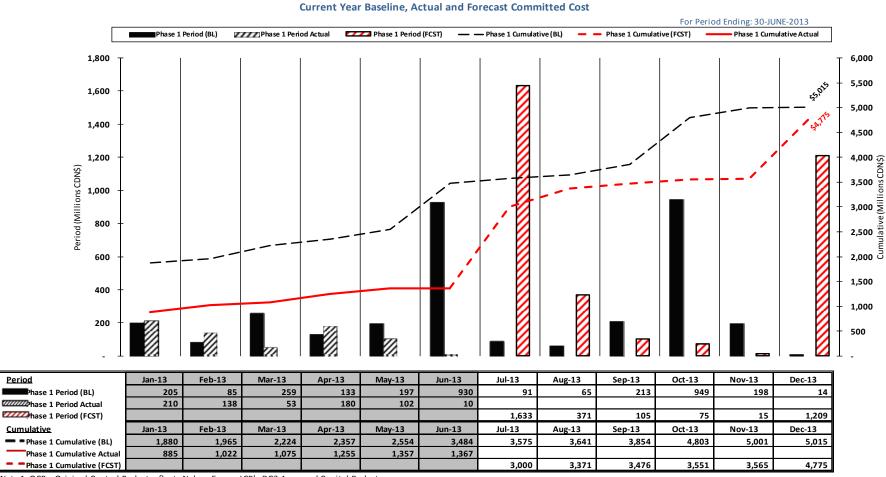
**Period** 

#### **MONTHLY PROGRESS REPORT**

Period Ending:	30-Sep-2013	
Page:	77 of 83	

#### 12.9 COMMITTED COST SUMMARY – NOT UPDATED FOR THIS PERIOD

LCP Phase I - Muskrat Falls Generation, Lab. Island Transmission Link, Lab Tx Asset



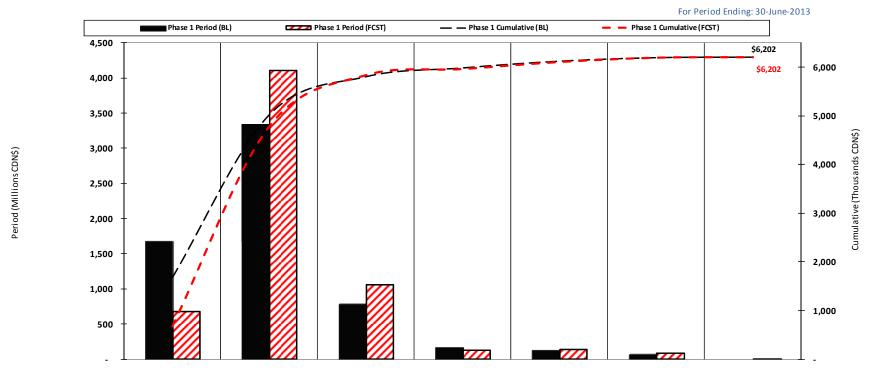


Period Ending: 30-Sep-2013

Page: 78 of 83

# LCP Phase I - Muskrat Falls Generation, Lab. Island Transmission Link, Lab Tx Asset

**Annual Baseline and Forecast Committed Cost** 



<u>Period</u>	2012	2013	2014	2015	2016	2017	2018
Phase 1 Period (BL)	1,676	3,339	786	180	139	72	10
Phase 1 Period (FCST)	674	4,100	1,058	127	144	89	11
<u>Cumulative</u>	2012	2013	2014	2015	2016	2017	2018
- Phase 1 Cumulative (BL)	1,676	5,015	5,801	5,981	6,120	6,192	6,202
<ul><li>Phase 1 Cumulative (FCST)</li></ul>	674	4,775	5,833	5,959	6,103	6,192	6,202



Period Ending:		30-Sep-2013
	Page:	79 of 83

# 12.10 PERIOD EXPENDED HOURS BY COMPANY AND LOCATION

Work Location					<b>Grand Total</b>					
Company	<u>Isla</u>	and _	<u>Labr</u>	ador_	<u>Other</u>	<u>Canada</u>	<u>Intern</u>	ational		
	Period	YTD	Period	YTD	Period	YTD	Period	YTD	Period	YTD
Project Delivery Organization	66,633	511,897	18,971	78,133	5,617	60,466	420	455	91,640	650,951
Other Contractors	3,309	16,089	186,641	987,930	2,234	8,657	25	58	192,269	1,012,734
Grand Total	70,002	527,985	205,611	1,066,063	7,851	69,123	445	513	283,909	1,663,685



Period Ending:	30-Sep-2013	
Page:	80 of 83	

# 12.11 SLI ENGINEERING PROGRESS SUMMARY

Component	Stage Description	Current Budget	Period Progress	Complete	
	Stages 1 & 2	63,212	0%	100%	
Power Generation Facilities (SLI Component 1)	Stage 3 Balance of Services	233,630	2.9%	86.0%	
	Total	296,842	2.2%	89.0%	
	Stages 1 & 2	16,601	0%	100%	
Switchyards & DC Specialties (SLI Component 3)	Stage 3 Balance of Services	68,816	0.4%	87.0%	
	Total	85,417	0.2%	89.5%	
	Stages 1 & 2	37,578	0%	100%	
Overland Transmission (SLI Component 4)	Stage 3 Balance of Services	79,478	1.1%	83.0%	
	Total	117,056	0.8%	88.5%	
	Total to-Date	499,315	1.6%	89.0%	

# Notes:

- 1. C1 S3 budget baseed upon updated deliverables list and rebaseline of forecasted hours to complete.
- 2. Stage 1 was the Mobilization Stage, while Stage 2 was the period up to 15-December 2011.



Period Ending:	30-Sep-2013
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Page: 81 of 83

# **12.12 PROJECT PHOTOS**



CH0006: Bulk Excavation - Powerhouse excavation works



CH0006: Bulk Excavation - Spillway excavation works



CH0006: Bulk Excavation - River side RCC Cofferdam construction works



CH0024: Reservoir Clearing - South side clearing works.



**Period Ending:** 30-Sep-2013

82 of 83 Page:



CH0024: Reservoir Clearing - Camp installation works.



CT0341: RoW Clearing HVac 315kV TL - Clearing works.



CT0341: RoW Clearing HVac 315kV TL - Clearing works.

CT0341: RoW Clearing HVac 315kV TL – Marshalling Yards works.



Period Ending: 30-Sep-2013

Page: 83 of 83



CH0002: Accommodation complex – Dorms - installation works



CH0002: Accommodation complex - Dorms - Installation works.



CH0002: Accommodation complex – Water Treatment Plant - installation works



CH0002: Accommodation complex – Sewage Plant - Construction works.