Integrated Project Schedule (IPS) Monthly Schedule and Progress Analysis

Cut off Date: 28 Oct 2015





confidential Corinne Russell McInnes Cooper Mar 29, 2018 08:48

TABLE of CONTENTS

1.0 Overall Summary

- a) Overall Analysis Information
- b) Target Milestone Schedule
- c) Overall Summary Schedule
- Actual and forecast dates with no baseline
- d) Overall 6 Month Look Ahead
- e) Overall Progress Curve
- f) Overall Progress Table
- h) Float Watch:
- C1 Diversion/Head Pond/Impoundment
- C3/C4 1st Power Transfer Lab-Nfld
- C3 Converters/Switchyards
- C4 Transmission lines/SOP Line Rebuilds

2.0 Labrador Transmission Asset (LTA)

LTA Analysis – Observations

LTA Summary Schedule

LTA Progress Curve

LTA Progress Table

LTA Critical Path

3.0 Labrador Island Transmission Link (LITL)

LITL Analysis – Observations

LITL Summary Schedule

LITL Progress Curve LITL Progress Table

LITL Critical Path

4.0 Muskrat Falls Generation (MFGen)

MFGen Analysis - Observations

MFGen Summary Schedule

MFGen Progress Curve

MFGen Progress Table

5.0 Nalcor Operations & Maritime Link

Nalcor Operations Scope Maritime Link

6.0 RFO Start-up sequences

7.0 Entire IPS Schedule – Project based (Attached PDF)

8.0 Critical/SubCritical Paths for Overall, LTA, LITL (Attached PDFs)



Intergrated Project Schedule (IPS)

Corinne Russell McInnes Cooper Mar 29, 2018 08:48

Current IPS Structure

LCP Project

- 1) LTA Labrador Transmission Assests
- 2) LITL Labrador island Transmission Link
- 3) MFG Muskrat Falls
- 4) Telecom Systems level of detail being established
- 5) Start-Up sequence

Nalcor Operations

- 6) Breaker Upgrades
- 7) System Protection and Control Upgrades
- 8) Energy Control center Upgrades
- 9) TL 267 and associated switchyard modifications

Transition to Operations Team

- 10) RFI Ready for Integration
- 11) RFO Ready for Operation
- 12) BTPO Build the Production Organization

Maritime Link

Schedule interface level of detail being established

13) Maritime Link Start-Up activities related to LCP Start-Up sequence



1.0 Overall Summary Overall Analysis – Information page 1 of 4

1) Target Milestones

* Target Milestone Overall = LTA Ready for Power Transmission (Power Available) = 04 July 2017

Tracking Milestone = 18 May 2017 forecast date (no change this month)

- * Target Milestone Overall=LITL-1st Power Transfer Lab to Nfld = 18 July 2017 (Tracking Milestone) (no change this month)
- * Target Milestone Overall = MFGen First Power from Muskrat Falls = (**On hold**, see below for details)

 Tracking Milestone removed pending resolution of CH0007 remediation of schedule

NOTE: A tracking milestone simply indicates this month forecast completion date.

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 2.5% Cumulative Planned Progress: 44.5%

Period Forecast Progress 2.5%

Period Earned Progress: 2.2% Cumulative Earned Progress: 37.7%

Note: This months report now includes:

Nalcor Operations

- Breaker Upgrades page 37
- System Protection and Control Upgrades page 38
- Energy Control center Upgrades page 39
- TL 267 and associated switchyard modifications page 40

LCP/Nalcor Operations

Line Rebuilds Soldiers Pond Area page 21 and page 41

Maritime Link

Maritime Link page 42



1.0 Overall Summary Overall Analysis – Information page 2 of 4 LTA

1) Target Milestone

Target Milestone Overall = LTA Ready for Power Transmission (Power Available) = 04 July 2017

Tracking Milestone = 18 May 2017 forecast date (no change from last month)

NOTE: A tracking milestone simply indicates this month forecast completion date.

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 3.3% Cumulative Planned Progress: 57.6%

Period Forecast Progress 3.3%

Period Earned Progress: 5.2% Cumulative Earned Progress: 60.3%

3) Critical Path:

- CF Switchyard continues to be on critical path to LTA Power Available forecast for May 2017.
- Nalcor Pets projects now are in the LTA subcritical paths (see attched LTA Critical/Subcritical paths PDF)

4) Switchyards: no change from last month

· No change to completion date of static commissioning for either switchyard (CF, MF).

5) 315kV HVac Lines CF-MF: no change from last month

HVac Seg 1/2 - line construction/stringing progressing with no change this month to HVac Seg 1/2 final inspection date which is
end of line construction.

6) 735kV HVac CF Interconnection (Bus Extension): no change from last month

CF 735kV -bus extension - TL construction start (foundations) not planned until June 2016.



1.0 Overall Summary Overall Analysis – Information page 3 of 4 LITL

1) Target Milestone

- Target Milestone Overall=LITL-1st Power Transfer Lab to Nfld = 18 July 2017 (Tracking Milestone) No change from last month
- Target Milestone Overall=LITL-Ready for Sustainable Power Transfer Labrador to Newfoundland= 11 Nov 2017

Tracking Milestone = 22 Sept 2017 forecast date - No change from last month

NOTE: A tracking milestone simply indicates this month forecast completion date.

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 2.8% Cumulative Planned Progress: 31.9%

Period Forecast Progress 2.8%

Period Earned Progress: 2.0% Cumulative Earned Progress: 30.8%

3) Critical Path: No change from last month

- HVdc segment Seg 5 is driving the LITL critical path.
- HVdc segment Seg 4 lost 77 days float this month with 19 days float remaing to critical path.
- Schedule pressures increased this month on Seg 4 & Seg 5 after foundations & towers start delayed 3 months

4) SOBI Crossing

- · Completion of the rock loading marine terminal
- Completion of placement /termination 1/3 land cables at Shoal Cove

5) HVdc Line

- HVdc Lab Seg 1 = final inspection date is Sep 2016 which is 44 days earlier than last month (see page 19)
- HVdc Lab Seg 2 = final inspection date is Sep 2016 which is 60 days earlier than last month (see page 19)
- HVdc Nfld Seg 3 = final inspection date is March 2017 which is 7 days later than last month (see page 19)
- HVdc Nfld Seg 4 = final inspection date is June 2017 which is 77 days later than last month (see page 19)
- HVdc Nfld Seg 5 = final inspection date is July 2017 no change from last month

6) Converters / Switchyards / Sych Cond

- Converters/switchyards: Work progressing with no delay on completion date of static commissioning.
- Sych Cond: Work progressing with 4 day delay to completion date of static commissioning.

7) SOP Transmission Line Rebuilds

• Work continues with reliance on outages. (see pages 21 and 41)

8) Transition Compounds / Grounding (Electrode) Stations

- Grounding stations work progressing with no delay on completion date of static commissioning.
- Transition compound civil/structures work to begin Apr 2016.



1.0 Overall Summary Overall Analysis – Information page 4 of 4 MFG

1) Target Milestone

Target Milestone: MFGen 1st power from Muskrat Falls = (On hold, see below for details)

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 2.0% Cumulative Planned Progress: 52.7%

Period Forecast Progress: 2.0%

Period Earned Progress: 1.8% Cumulative Earned Progress: 38.5%

3) Critical Path(s):

- Diversion River Closure (priority 1a) see page 14
- On schedule for start on 6 July 2016
- Diversion Winter Headpond El. 25m (priority 1b) see page 15
- On schedule for start on 26 Oct 2016
- Diversion Impoundment Full Supply Level El. 39m (priority 1c) see page 16
- (On hold, see below for details)

4) Reservoir Clearing:

- Labour transferred to ROW clearing in LITL, forecast for restart in July 2016 with completion in Dec 2016.

5) North Spur:

- Work progressing with all milestones forecast to be achievable.

6) Spillway

- Spillway: work is progressing on schedule for priority p1a: River Closure.

7) Transition Dams/North & South Dams

- Work began on Upstream Cofferdam (5) Groins 1&2 to EL 17m (2015 scope) CH0009

8) Powerhouse:

- A review of the C1 (Muskrat Falls Generation) work plan is underway, and implementation of an updated C1 schedule will remain on hold pending acceptance of agreed actions and mitigations plan.
- Work progressing on all areas and removal of ICS (Integrated Cover System) has started.



confidential Corinne Russell

1.0 Overall Summary = Target Milestone

page 1/10fin2s Cooper

		Mar 29, 1	2018 08:48		-						
nalcor	Inte	egrated Pro	oject Sche	dule			LCF	Project Con	trol		
energy		030 IPS Targe	t Milestone	s			Upd	lated: 28-Oct	-15		
Activity Name		Start	Delta-Last Month Start	Finish	Delta-Last Month Finish	2014 Q1 Q2 Q3 Q4	2015 Q1 Q2 Q3 Q	2016 4 Q1 Q2 Q3 Q4	2017 Q1 Q2 Q3	2018 24 Q1 Q2 Q3	Q4 Q1
Lower Churchill Project General						2. 2. 2. 2.	2.122 2.12		2. 2. 2.		
LCP Overall											
Target MIL=Overall-LCP Project Phase 1 - Project Sanction			0d	17-Dec-12 A	0d						
Target MIL=Overall-MFG Bulk Excavation - Construction Start		13-Jan-13 A	0d		Od						
Target MIL=Overall-LITL-EA Release		21-Jun-13 A	0d		0d						
Target MIL=Overall-LITL-SOBI Cable Systems - Ready			0d	11-Oct-16	0d			11-Oct-16 🕏			
Target MIL= Overall-LTA-Ready for Power Transmission (Power Availabl	le)		0d	04-Jul-17	0d			04-	Jul-17 🕏		
Target MIL=Overall-LITL-1st Power Transfer Labrador to Newfoundland	- Tracking Forecast	18-Jul-17	0d		0d			18-J	ul-17, 💠		
Target MIL=Overall-LITL-Ready for Sustainable Power Transfer Labrador	r to Newfoundland		0d	11-Nov-17	0d				11-Nov-17	>	
Target MIL=Overall-Muskrat Falls Powerhouse - First Power from Muskr	rat Falls		0d	10-Dec-17	0d				10-Dec-17	♦	***
Target MIL=Overall-LCP Phase 1 - READY FOR SYSTEM INTEGRATION TES	T (Final)		0d	27-Mar-18	Od				27-Ma	r-18 🕏	
Target MIL=Overall-Muskrat Falls Powerhouse - Full Power from Muskra	at Falls		0d	06-Apr-18	Od	Lln	dor ro	iew -	06-Ap	r-18 🕏	
Target MIL=Overall-LCP Phase 1 - Comm Certificate Issued (Integration T	Test Complete)		0d	01-Jun-18	Od		uee.	16-W	01-	un-18 🕏	***
Target MIL=Overall-LCP Phase 1 - Date Certain			0d	28-Feb-19	Od					28-Feb	-19
LTA								'	÷		
Target MIL= LTA-Hvac Transmission Line - Right of Way (ROW) Clearing	- Start	15-Aug-13 A	0d		0d						
Target MIL= LTA-Hvac Transmission Line - Construction Complete	31.51.51313.039		0d	12-Oct-16	Od			12-Oct-16 🕏			
Target MIL= LTA-Muskrat Falls Switchyard - Ready to Energize (Initial)			Od	01-Mar-17	Od	1		01-Mar-1	7 🕏		
Target MIL= LTA-Churchill Falls Switchyard - Ready to Energize (Initial)			0d	01-Mar-17	Od	-		01-Mar-1	7. ♦		
Target MIL= LTA-Ready for Power Transmission (Power Available) - Trac	king Forecast		0d	18-May-17	Od			18-Ma	y-17 🕏		
LITL											
Target MIL= LITL-SOBI Landfall Protection (HDD) - Start		19-Nov-13 A	0d		0d			1			
Target MIL= LITL-HVdc Transmission Line Right of Way (ROW) Clearing -	Start	16-Jun-14 A	0d		Od	4 A, 💠					
Target MIL= LITL-SOBI Landfall Protection (HDD) - Complete			0d	20-Oct-14 A	Od	Oct-14 A 💠					
Target MIL= LITL-SOBI Cable Systems - Ready for Power Transmission			0d	11-Oct-16	Od			11-Oct-16 🕏			
Target MIL= LITL-Soldiers Pond Switchyard & Convertor Station (Sta	nd Alone Testing)		0d	15-Jun-17	Od			15-Ju	in-17 🕏		
Target MIL= LITL-Soldiers Pond Synchronous Condensor - Testing 1/2/3	Complete		-4d	15-Jun-17	-4d			15-Ju	n-17 💠		
Target MIL= LITL-Muskrat Falls Switchyard & Convertor Station - (Stand	Alone Testing)		0d	16-Jun-17	Od	-		16-Ju	ın-17 🕏		**
Target MIL= LITL-HVdc Transmission Line Construction - Complete and C			0d	17-Jul-17	Od	1		17	Jul-17 🕏		
Target MIL= LITL-Ready for Sustainable Power Transfer Labrador to Nev	wfoundland-Tracking For		0d	22-Sep-17	0d			2	2-Sep-17 🕏		
MF Gen											
Target MIL= MFG-MF Access Road - Ready for Use		30-Nov-12 A	0d		Od						
Target MIL= MFG-North Spur Stabilization Works - Start		14-Mar-15 A	0d		Od	14-Mar-15 A,	*				
Target MIL= MFG-Powerhouse Crane - Commissioned			0d	18-Jan-16	0d		18-Jan-16	*	7 1	Jnder	
Target MIL= MFG-South Dam - Construction Start		18-Apr-16	0d		Od		18-Apr-	16, 🕏	<u> </u>	review	
♦ Milestone-Current ▼ Milestone - Last Month	Pag	ge 1 of 2		oject: IPS Current yout = 030 IPS Ta		s Filter = TAS	K filter: ipsTa	arget Mileston	es.		

Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



Corinne Russell

1.0 Overall Summary = Target Milestone

page 2/10fin2s Cooper

1 nalcor **Integrated Project Schedule**

LCP Project Control

energy LOWER CHUSCHILL PROJECT		030 IPS Targ	et Milestone	s			Upo	dated: 28-	Oct-15	
Activity Name		Start	Delta-Last Month Start	Finish	Delta-Last Month Finis		2015 Q1 Q2 Q3 Q	2016 24 Q1 Q2 Q3		2018 201 4 Q1 Q2 Q3 Q4 Q1
Target MIL= MFG-River Diversion (priority 1a- River closure) - Complete			0d	05-Aug-16	0d		05	-Aug-16 🕏		
Target MIL= MFG-North Spur - Ready for Winter Headpond (EL 25m)(pr	riority 1b- winter head p		0d	15-Sep-16	0d			15-Sep-16	♦	
Target MIL= MFG-South Dam - Construction Complete			0d	31-Oct-16	0d			31-Oct-16	, ♦	
Target MIL= MFG-Reservoir Clearing - Complete			0d	16-Dec-16	0d			16-Dec-	16 🍀	
Target MIL= MFG-Powerhouse - Unit 1 Ready to Turn			0d	04-Jul-17	0d			7	04-Jul-17 🕏	
Target MIL= MFG-North Spur Stabilization Works - Complete			0d	15-Aug-17	0d			//	15-Aug-17 🕏	
Target MIL= MFG-North Dam (RCC/CVC) - Complete			0d	03-Nov-17	0d			/	03-Nov-17 🕏	
Target MIL= MFG-Reservoir Impoundment EL39m (priority 1c- Impound	dment to Full Service Lev		0d	19-Nov-17	0d				19-Nov-17 🕏	
Target MIL= MFG-Muskrat Falls Powerhouse - Unit 1 Ready for Operation	on		0d	10-Dec-17	0d				10-Dec-17	♦
Target MIL= MFG-Muskrat Falls Powerhouse - First Power			0d	10-Dec-17	0d		'.		10-Dec-17	\$
Target MIL= MFG-Muskrat Falls Powerhouse - Unit 2 Ready for Operation	on		0d	30-Dec-17	0d	Under	review	/	30-Dec-17	₹
Target MIL= MFG-Muskrat Falls Powerhouse - Unit 3 Ready for Operation	on		0d	25-Feb-18	0d				25-Feb-1	8 🕏
Target MIL= MFG-Muskrat Falls Powerhouse - Unit 4 Ready for Operation	on		0d	06-Apr-18	0d				06-Apr	-18 🕏
Target MIL= MFG-Muskrat Falls Powerhouse - Full Power			0d	06-Apr-18	0d		:		06-Apr	-18 🕏

◆ Milestone-Current

▼ Milestone - Last Month

Page 2 of 2

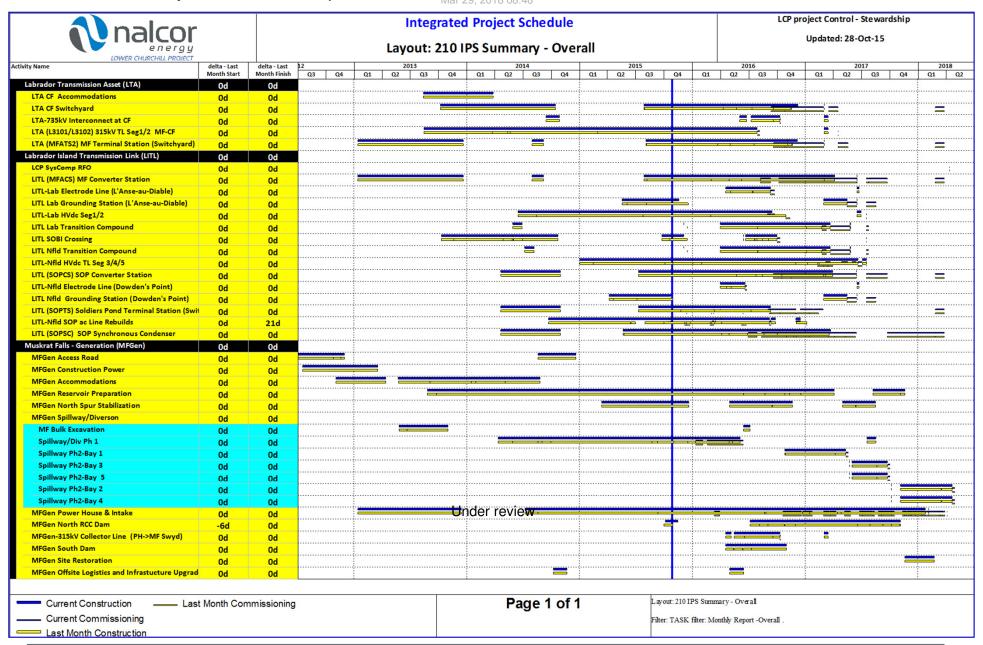
Project: IPS Current curz1

Layout = 030 IPS Target Milestones Filter = TASK filter: ipsTarget Milestones.

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44 Corinne Russell McInnes Cooper Mar 29, 2018 08:48



1.0 Overall Summary = Overall Summary Schedule - Actual and forecast dates with no baseline

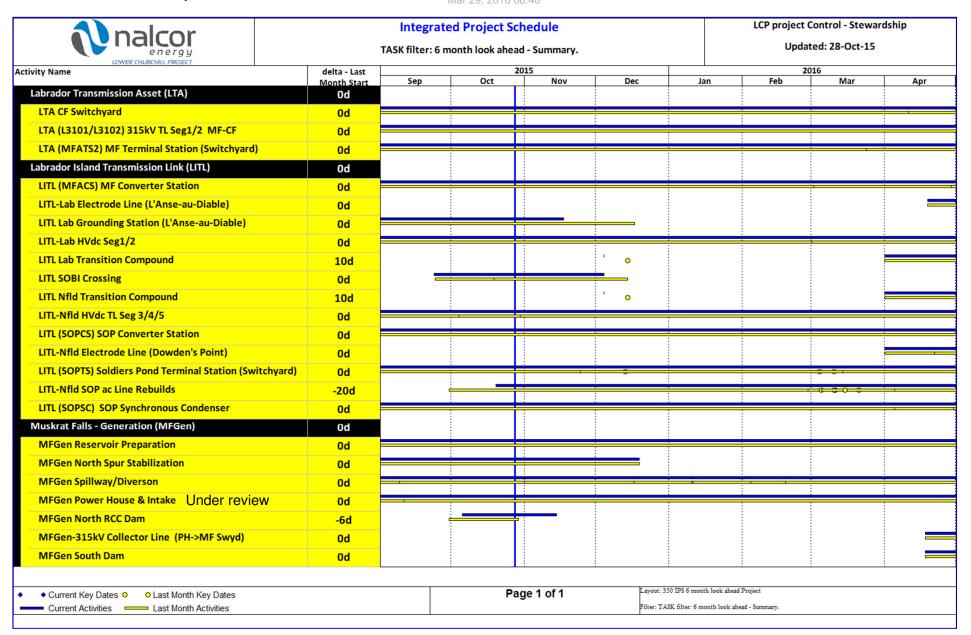


Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



1.0 Overall Summary = Overall 6 Month Look Ahead



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44



1.0 Overall Summary = Overall Engineering/Construction/Commissioning Progress Curve

Overall progress curve will return when Muskrat Falls Generation review complete

1.0 Overall Summary = Overall Engineering/Construction/Commissioning Progress Table

		LCP -	Overall	2015	Oct				
			Th	nis Report	ing Period				Next Month
	Weight		Pe	riod %		C	umulative 9	% *2	Forecast %
	Factor %	Plan *1	Forecast	Earned	Var-Forecast	Plan	Earned	Variance	Period %
	Α	В	B1	С	C-B1	E	F	F-E	G
Labrador Transmission Asset (LTA)	11.1%	3.3%	3.3%	5.2%	1.9%	57.6%	60.3%	2.7%	3.2%
Labrador Island Transmission Link (LITL)	42.2%	2.8%	2.8%	2.0%	-0.8%	31.9%	30.8%	-1.1%	3.4%
Muskrat Falls Generation (MFGen)	46.7%	2.0%	2.0%	1.8%	-0.2%	52.7%	38.5%	-14.2%	1.9%
LCP-Overall	100.0%	2.5%	2.5%	2.2%	-0.2%	44.5%	37.7%	-6.8%	2.7%
			La	st Report	ing Period				
	Weight		Pe	riod %			Cumulative	· %	
	Factor %	Plan		Earned		Plan	Earned		
	Α	В		С		E	F		
Labrador Transmission Asset (LTA)	11.1%	2.5%		3.3%		54.3%	55.1%		
Labrador Island Transmission Link (LITL)	42.2%	2.0%		1.8%		29.1%	28.8%		
Muskrat Falls Generation (MFGen)	46.7%	2.0%		1.9%		50.7%	36.7%		
LCP-Overall	100.0%	2.1%		2.0%		42.0%	35.4%		

^{*1} Plan represents Sep 2015 rebaseline for LTA/LITL and partial MFG. Remaining MFG uses June 2014 baseline



^{*2} MFG cumulative planned progress uses June 2014 baseline until MFG update available

1.0 Overall Summary Float Watch: C1: Diversion - River Closure → priority P1a

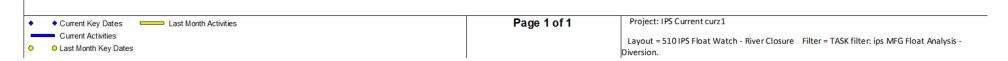
Integrated Project Schedule

Float Watch: Diversion - River Closure

LCP Project Controls - Stewardship Process

Updated: 28-Oct-15

LOWER CHURCHILL PROJECT			vattii. Divei				
ity Name		tjep ips y Float analysis	Start	Delta last month Start Date	Finish	Delta last month Finish Date	2015 2016 201
luskrat Falls - Generation (MFGen)							
MFGen Reservoir Preparation							
KD=MFG Reservoir-River Diversion - Start # (priority 1a- Riv	ver closure)	Div	06-Jul-16	0d		0d	=MFG Reservoir-River Diversion - Start # (priority 1a- River closure)
KD=MFG Reservoir-River Diversion - Complete # (priority 1	a- River closure)	Div		0d	05-Aug-16	0d	=MFG Reservoir-River Diversion - Complete # (priority 1a- River closure)
MFGen Spillway/Diverson							
MFG-SpilDiv1 Civil: Ph1 Foundation Preparation - other Stru Diversion (priority 1a river closure)	ictures req for	Div	30-May-14 A	Od	29-Oct-15	Od	
MFG-SpilDiv1 Civil: Ph1 Structures - Center Trans dam & sla (priority 1a river closure)	b for Elect Bldg **	Div	20-Aug-14 A	Od	16-Dec-15	Od	
MFG-SpilDiv1 Civil: Ph1 Structures - Separation wall ** (price	ority 1a river closure)	Div	01-Oct-14 A	0d	15-Nov-15	0d	
MFG-SpilDiv1 Civil: Ph1 Structures - Discharge channel ** (pclosure)	oriority 1a river	Div	23-Aug-15 A	Od	05-Dec-15	Od	
MFG-SpilDiv1 Install: Hydro-Mech Spillway (D/S stoplog gui river closure)	des) **(priority 1a	Div	09-Sep-15 A	Od	12-Jan-16	Od	
MFG-SpilDiv1 Civil: Ph1 Structures - Upstream Temp bridge	& access ramp CH000	Div	06-Oct-15 A	208d	03-Jun-16	0d	-
MFG-SpilDiv1 Install: Hydro-Mech Spillway (U/S Stoplogs/g ** (priority 1a river closure)	ate guides/hoists/etc)	Div	01-Nov-15*	Od	11-May-16	Od	
MFG-SpilDiv1 Install: Hydro-Mech Spillway (Electrical Bldg) closure)	**(priority 1a river	Div	30-Dec-15	Od	30-Apr-16	Od	
MFG-SpilDiv1 Completions: Hydro-Mech (static/dynamic-ge 1a river closure)	ates/etc) ** (priority	Div	19-Feb-16	Od	14-Jun-16	Od	1
KD=MFG Spillway Phase I - Ready for River Closure (Diversion River closure)	on)**(priority 1a-	Div		0d	14-Jun-16	Od	Ready for River Closure (Diversion)**(priority 1a- River closure) 3
KD=MFG Reservoir-End of Spring Flood (June 15 2016)		Div	15-Jun-16*	0d		Od	KD=MFG Reservoir-End of Spring Flood (June 15 2016)
MFG-SpilDiv1: Civil Works:Cofferdams 1 & 2 Removed**		Div	15-Jun-16	0d	06-Jul-16	Od	
KD=MFG-SpilDiv1: Cofferdams 1 & 2 - Removed**		Div		0d	06-Jul-16	Od	KD=MFG-SpilDiv1: Cofferdams 1 & 2 - Removed**
MFGen North RCC Dam							
MFG-North Dam: Upstream Cofferdam (5) Groins 1&2 to EL CH0009	17m (2015 scope)	Div	06-Oct-15 A	-6d	14-Nov-15	-16d	
MFG-North Dam: Upstream Cofferdam (5) Groins 1&2 to EL	17m (2016 scope) **	Div	06-Jul-16	Od	05-Aug-16	0d	



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 14 of 44



1.0 Overall Summary Float Watch: C1: Diversion- Winter Head Pond (25m) Priority P1b Mar 29, 2018 08:48

			IVIAI 29,	2018 08:48			
a) poleor		Inte	grated Pr	oject Sched	ule		LCP Project Controls - Stewardship Process
I TIAICOT energy	51	1 IPS Floa	it Watch-V	Vinter Head	d Pond 25	m	Updated: 28-Oct-15
ctivity Name		tjcp ips y	Start	Delta last	Finish	Delta last	
		Float		month Start		month Finish Date	2016 Apr May Jun Jul Aug Sep Oct
HeadPond				<u> </u>		2	
MFGen Reservoir Preparation							
MFG-Reservoir :Upstream & Downstream- Log Booms pond establishment)	# (priority 1b- winter head	HeadPond	15-Jun-16	Od	23-Aug-16	Od	<u> </u>
MFG Reservoir - Ready for Winter Headpond (EL 25m) pond establishment)	# (priority 1b- winter head	HeadPond		Od	25-Oct-16		adpond (EL 25m) # (priority 1b- winter head pond establishment)
KD=MFG Reservoir-Ready for Winter Headpond (EL 25 head pond establishment)	im) # (priority 1b- winter	HeadPond		Od	25-Oct-16	Od	adpond (EL 25m) # (priority 1b- winter head pond establishment)
MFG Reservoir - Winter Head Pond (EL 25m) # (priorit establishment)		HeadPond	26-Oct-16	Od	09-Nov-16	Od	
KD=MFG Reservoir-Winter Headpond(EL 25m)- Com head pond establishment)	plete # (priority 1b- winter	HeadPond		Od	09-Nov-16	Od	(EL 25m) - Complete # (priority 1b- winter head pond establishment
MFGen North Spur Stabilization							
MFG-North Spur: 2016 Scope for Winter Head Pond E head pond establishment)	L 25m (priority 1b- winter	HeadPond	01-May-16*	Od	15-Sep-16	Od	
KD=MFG North Spur - Ready for Winter Headpond (E head pond establishment)	L 25m) (priority 1b- winter	HeadPond		Od	15-Sep-16	Od	25m) (priority 1b- winter head pond establishment) **
MFGen Power House & Intake							
MFG-PH Powerhouse: Install Intake Channel Cofferdar winter head pond establishment)	n (9) EL 26m(priority 1b-	HeadPond	09-Oct-15 A	323d	25-Oct-16	0d	
MFGen North RCC Dam							
MFG-North Dam: Upstream Cofferdam(5) to EL 26		HeadPond	05-Aug-16	0d	25-Oct-16	0d	
MFG-North Dam: Downstream Cofferdam(6) EL 9m - Ir	nstall	HeadPond	05-Aug-16	0d	02-Sep-16	0d	<u>+===</u>
KD=MFG North Dam - Upstream Cofferdam(5) Comple	ete to EL 26m	HeadPond		0d	25-Oct-16	0d	D=MFG North Dam - Upstream Cofferdam(5) Complete to EL 26m
Diversion							
MFGen Reservoir Preparation							
KD=MFG Reservoir-River Diversion - Complete # (prio	rity 1a- River closure)	Div		0d	05-Aug-16	0d	Complete # (priority 1a- River closure)
MFGen Spillway/Diverson							
KD=MFG Reservoir-End of Spring Flood (June 15 2016)	Div	15-Jun-16*	0d		0d	g Flood (June 15 2016)
MFG-SpilDiv1: Civil Works:Cofferdams 1 & 2 Removed	**	Div	15-Jun-16	0d	06-Jul-16	0d	·
KD=MFG-SpilDiv1: Cofferdams 1 & 2 - Removed**		Div		0d	06-Jul-16	0d	offerdams 1 & 2 - Removed**
MFGen North RCC Dam							
MFG-North Dam: Upstream Cofferdam (5) Groins 1&2	to EL 17m (2016 scope) **	Div	06-Jul-16	0d	05-Aug-16	0d	<u> </u>
◆ Current Key Dates				Page 1 of	f 1	Project: IPS Co	rrent curz1
Current Activities				-		Lavout = 511 II	PS Float Watch-Winter Head Pond 25m Filter = TASK filter: ips MFG Floa
Last Month Key Dates						Analysis - Winte	

Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



1.0 Overall Summary Float Watch: C1: Diversion - Impoundment (39m) Priority P1c

nalcor			In	tegrated	Project Schedule LCP Project Controls - Stewardship Process
LOWER CHURCHIL PROJECT			512 IF	S Float V	Vatch - Impound 39m Updated: 28-Oct-15
ctivity Name	Float analysis	Start	Finish	Delta last month Finish Date	2016 2017 2018 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1
Lower Churchill Project General				- Ditt	
Target Milestones				_	
Target MIL= MFG-Reservoir Impoundment EL39m (priority 1c- Impoundment to Full Service Level) - Complete	Impound		19-Nov-17	0d	Target MIL= MFG-Reservoir Impoundment EL39m (priority 1c- Impoundment to Full Service Level) - Complete
Muskrat Falls - Generation (MFGen)					
MFGen Reservoir Preparation					
KD=MFG Reservoir: Resevoir Clearing - Complete	Impound		16-Dec-16	0d	KD=MFG Reservoir: Resevoir Clearing - Complete 🌋
MFG-Reservoir :Upstream - Log Booms # (priority 1c- impoundment to Full Service Level)	Impound	07-Aug-17	05-Nov-17	0d	
MFG Reservoir-Ready to Impound to FSL (EL 39m) # (priority 1c- impoundment to Full Service Level)	Impound		05-Nov-17	0d	MFG Reservoir-Ready to Impound to FSL (EL 39m) # (priority 1c- impoundment to Full Service Level)
MFG Reservoir -Impoundment to FSL (EL 39m) # (priority 1c- impoundment to Full Service Level)	Impound	06-Nov-17	19-Nov-17	0d	
KD=MFG Reservoir -Impoundment - to FSL (EL 39m) - Complete # (priority 1c- impoundment to Full Service Level)	Impound		19-Nov-17	0d	KD=MFG Reservoir - Impoundment - to FSL (EL 39m) - Complete # (priority 1c- impoundment to Full Service Level)
MFGen North Spur Stabilization					
MFG-North Spur: 2017 Scope for Impoundment EL 39m (El 39m) (priority	Impound	01-May-17*	12-Jun-17	0d	
1c- impoundment to Full Service Level) KD=MFG North Spur- Ready for Impoundment (El 39m) (priority 1c-	Impound		12-Jun-17	0d	North Spur - Ready for Impoundment (El 39m) (priority 1c-impoundment to Full Service Level)
impoundment to Full Service Level) MFG-North Spur: 2017 Scope not required for Impoundment EL 39m	Impound	13-Jun-17	15-Aug-17	0d	
KD=MFG North Spur Works - Complete	Impound	13-3411-17	15-Aug-17	0d	KD=MFG North Spur Works - Complete
MFGen Spillway/Diverson	Impound		15 Aug 17	00	
		25.0 + 45	25 0 1 45	0.1	
MFG-SpilDiv2 Place temporary Stoplogs and Dewater Bay 1	Impound	26-Oct-16	26-Oct-16	0d 0d	
MFG-SpilDiv2 Civil Works: Rollway 1 MFG-SpilDiv2 Install: Permanent Stoplogs/Gate Guides Gate 1	Impound	28-Oct-16 07-Apr-17	06-Apr-17 11-May-17	Od Od	
	Impound	•	-	Od Od	
MFG-SpilDiv2 Completions: Spillway Gates Bay 1 - Dry Test (Static)	Impound	12-May-17	19-May-17	Od Od	
MFG-SpilDiv2 Place temporary Stoplogs and Dewater Bay 3	Impound	23-May-17	23-May-17		<u> </u>
MFG-SpilDiv2 Civil Works: Rollway 3	Impound	31-May-17*	19-Aug-17	Od	VP ASC David For Astronomy Stand (but to 2017)
KD=MFG Reservoir-End of Spring Flood (June 15 2017) MFG-SpilDiv1 Civil: Ph1 Structures - Removal Of Upstream Temp bridge	Impound Impound	15-Jun-17* 19-Jul-17*	17-Aug-17	0d 0d	KD=MFG Reservoir-End of Spring Flood (June 15 2017)
and ramp	2 1	20 4 17	22 0 17	A.	ļi
MFG-SpilDiv2 Install: Permanent Stoplogs/Gate Guides Rollway 3 - Phase		20-Aug-17	23-Sep-17	0d	
MFG-SpilDiv2 Completions: Spillway Gates Bay 3 - Dry Test (static)	Impound	24-Sep-17	01-Oct-17	Od	I
MFG-SpilDiv2 Completions: Spillway gates Rollway 5 - Dry test (static)	Impound	24-Sep-17	01-Oct-17	0d	∤
MFG-SpilDiv2 Place temporary Stoplogs and Dewater Bay 2	Impound	05-Oct-17 05-Oct-17	05-Oct-17 05-Oct-17	0d 0d	L ₊ ;
MFG-SpilDiv2 Place temporary Stoplogs and Dewater Bay 4	Impound	U5-UCT-1/	U5-UCT-17	Ud	' ' ' ' ' ' ' ' ' '
MFGen Power House & Intake					Lindow wouldness
MFG-PH Install: Hydro-mech Intake (incl Dry Test) Unit 4	Impound	30-Jan-17	27-Aug-17	0d	Under review
MFGen North RCC Dam					
MFG-North Dam Earth: Foundation Preparation	Impound	26-Oct-16	01-Jun-17	0d	
MFG-North Dam: RCC Construction (including Riverside RCC(10) removal)		19-Jun-17	01-Oct-17	0d	
MFG-North Dam: CVC Construction	Impound	18-Aug-17	03-Nov-17	0d	
					· · · · · · · · · · · · · · · · · · ·
♦ Current Key Dates —— Last Month Activities					Page 1 of 1 Project: IPS Current curz1
Current Activities					
Current Activities Last Month Key Dates					Layout = 512 IPS Float Watch - Impound 39m Filter = TASK filter: ips MFG Float Analysis - Impound.

Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



1.0 Overall Summary Float Watch: C3-C4 – 1st Power Transfer Lab № Nfld

Integrated Project Schedule LCP project Controls - Stewardship Updated: 28-Oct-15 Layout: 515 IPS Float Watch-1st Power Lab - Nfld 2017 Variance **Activity Name** Start Variance Finish Last Month Mar Apr May Jun Jul Aug Last Month LCP Overall Target MIL=Overall-LITL-1st Power Transfer Labrador to Newfoundland -0d 0d 18-Jul-17 **Tracking Forecast** LITL DynCm-3: LITL: Nfld REACTIVE SUPPORT (from SOP Sync Cond) 0d 18-May-17 0d DvnCm-3: LITL: SOP & MF CONVERTER STANDALONE TESTING & HVdc LINK 18-Jul-17 0d 0d COMPLETED LITL-SP Synch Cond DynCm-6-Nfld ac: 9b SOP SyncCond #2: dynamic testing 06-Apr-17 0d 18-May-17 0d LITL-HVdc NFLD Seg3 SOBI LITL-dcNfSeg3: Conductor/OPGW Install 01-Aug-16 0d 07-Mar-17 -7d -7d LITL-dcNfSeg3: Installation Final Inspection Nfld (static) 08-Mar-17 -7d 21-Mar-17 LITL-dcNfSeg3: Connection to Nfld TransCmp (Slack Span>) 0d 17-Jul-17 04-Jul-17 0d DynCm-3: LITL: LITL-dcNfSeg3: Post Installation Final Inspection & Slack Span 0d 17-Jul-17 0d Connection **LITL MF Converter** LITL-MFConvert: Static Commissioning 07-Oct-16 0d 15-Jun-17 0d DynCm-3: LITL: LITL-MFConvert: Static Commissioning Complete 0d 15-Jun-17 0d DynCm-3: LITL: 7a p1- MF Converter: STATION STAND ALONE TESTING 16-Jun-17 0d 16-Jun-17 0d DynCm-3: LITL: 7a p2- MF Converter: HVdc LINK ENERGIZATION 18-Jul-17 0d 24-Jul-17 0d LITL SP Converter LITL-SOPConvert: Static Commissioning 20-Sep-16 0d 14-Jun-17 0d DynCm-3: LITL: LITL-SOP Convert: Static Commissioning Complete 0d 14-Jun-17 0d 0d 15-Jun-17 0d DynCm-3: LITL: 8a p1 SOP Converter: STATION STANDALONE TESTING 15-Jun-17 24-Jul-17 DynCm-3: LITL: 8a p2 SOP Converter: HVdc LINK ENERIZATION 18-Jul-17 0d 0d LITL-HVdc NFLD Seg5 SP LITL-dcNfSeg5: Conductor/OPGW Install 15-Feb-17 0d 19-Jun-17 0d LITL-dcNfSeg5: Installation Final Inspection Nfld (static) 20-Jun-17 0d 03-Jul-17 0d Page 1 of 1 Project: IPS Current curz1 printed: 14-Nov-15 ◆ Milestone current Activity Last Month Activity current Layout = 515 IPS Float Watch-1st Power Lab - Nfld Filter = TASK filter: ipsC3 float - 1st power Lab to Nfld. Milestone Last Month

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44



Corinne Russell McInnes Cooper

1.0 Overall Summary Float Watch: C3 Conveters

Integrated Project Schedule LCP project Controls - Stewardship

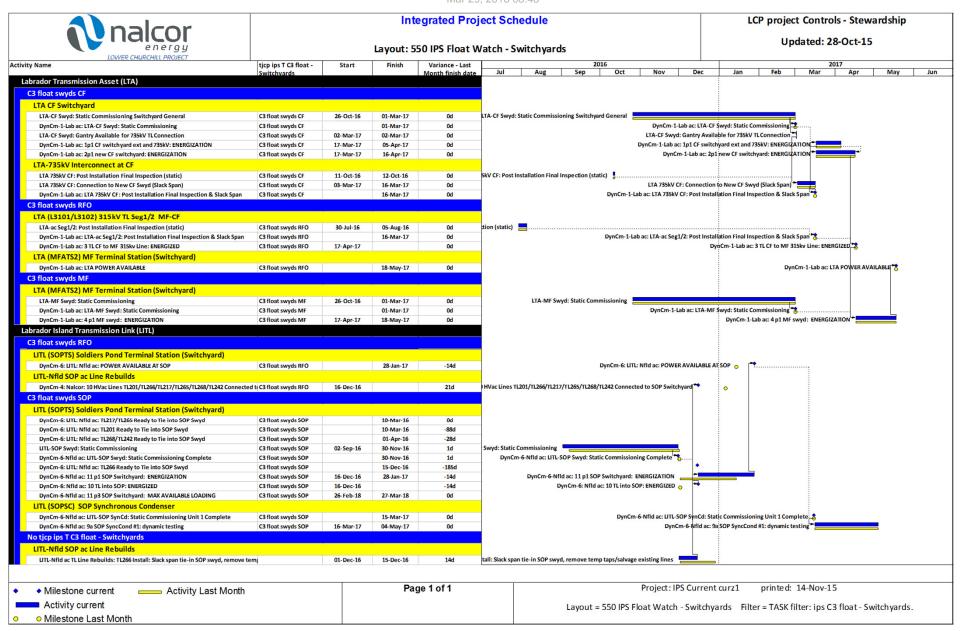
-		Mar 29	2018 08:48		
1 nalcor	In	itegrated Pr	oject Sche	dule	LCP project Controls - Stewardship
V Halcol energy	Lavou	ut: 540 IPS Flo	at Watch - C	onverter	Updated: 28-Oct-15
LOWER CHURCHILL PROJECT Activity Name	Start	Finish	Variance -Last	3	2016 2017
ACCIVICY Name	Start	Fillish	Month Finish		M J Jul A S O N D Jan F M A M J Jul A S O N
C3 float-converter-4	<u> </u>	'			
Target MIL=Overall-LITL-1st Power Transfer Labrador to Newfou	ndland - Tracking Forecast 18-Jul-17		Od	Target MIL=Overall-LITL-1st Power Tr	ransfer Labrador to Newfo undland - Tracking Forecast
DynCm-3: LITL: Ready for Sustainable Power Transmission (Conve	erter limited load testing comple	22-Sep-17	Od	Cm-3: LITL: Ready for Sustainable Power Transm	ission (Converter limited load testing complete - work driven)
DynCm-3: LITL: MF & SOP CONVERTER LIMITED LOAD TESTING CO		22-Sep-17	Od	- :	TL: MF & SOP CONVERTER LIMITED LOAD TESTING COMPLETED
Target MIL= LITL-Ready for Sustainable Power Transfer Labrador	to Newfoundland-Tracking Forec	22-Sep-17	Od	Target MIL= LITL-Ready for Sustainable	Power Transfer Labrador to Newfoundland-Tracking Forecast
Target MIL=Overall-LITL-Ready for Sustainable Power Transfer La	brador to Newfoundland	11-Nov-17	0d	Target MIL=Overall-LI	TL-Ready for Sustainable Power Transfer Labrador to Newfoundland 🕏
C3 float-converter-MF					
LITL-MFConvert: Building Foundation/Erect/Outfit	28-Jul-15 A	29-Apr-16	Od		
LITL-MFConvert: Foundation Outdoor	07-Aug-15 A	27-Sep-16	Od		
LITL-MFConvert: Valve Hall & Control Bldg Install Equipment	02-Mar-16	14-Mar-17	Od		**
LITL-MF Convert: Telecom Install equipment (to be reviewed)	08-Jun-16	08-Aug-16	Od	1	<u></u>
LITL-MFConvert: Telecom - Static Commissioning (to be reviewed		09-Sep-16	Od	1	
LITL-MFConvert: Install Converter transformers	09-Aug-16	03-Mar-17	Od		La
LITL-MFConvert: Static Commissioning	07-Oct-16	15-Jun-17	Od		
DynCm-3: LITL: LITL-MFConvert: Static Commissioning Complete		15-Jun-17	Od	DynCm-3: LITL:	LITL-MFConvert: Static Commissioning Complete
LITL-MFConvert: Gantry available for HVdc Seg1 TL & Lab Electron		16-Jun-17	Od		F
DynCm-3: LITL: 7a p1- MF Converter: STATION STAND ALONE TE		16-Jun-17	Od		<u> </u> .
DynCm-3: LITL: 7a p1- MF Converter: STATION STAND ALONE TE	STING COMPLETED	16-Jun-17	Od	DynCm-3: LITL: 7a p1- MF Conver	ter: STATION STAND ALONE TESTING COMPLETED
DynCm-3: LITL: 7ap2- MF Converter: HVdc LINK ENERGIZATION	18-Jul-17	24-Jul-17	Od		*
DynCm-3: LITL: 7ap3- MF Converter: HVdc LINK LOW LOAD TES	TING (2 months) 25-Jul-17	22-Sep-17	0d	1	 •
DynCm-3: LITL: 7ap3- MF Converter: DC LINK LOW LOAD TESTIN	NG COMPLETE	22-Sep-17	0d	DynCm-3: LITL:	7ap3- MF Converter: DC LINK LOW LOAD TESTING COMPLETE
C3 float-converter-SOP					
LITL-SOP Convert: Building Foundation/Erect/Outfit	10-Jul-15 A	17-Jun-16	Od		
LITL-SOP Convert: Outdoor Foundation	10-Jul-15 A	07-Nov-16	Od	- :	
LITL-SPConvert: Valve Hall/Control Bldg Install Equipment	24-May-16	21-Mar-17	Od		
LITL-SPConvert: Converter Transformers Install	25-Jul-16	29-Mar-17	Od		
LITL-SPConvert: Telecom Install equipment (to be reviewed)	16-Aug-16	16-Oct-16	Od	1	<u>-</u>
LITL-SOPConvert: Static Commissioning	20-Sep-16	14-Jun-17	Od		T
LITL-SPConvert: Telecom - Static Commissioning (to be reviewed		17-Nov-16	0d	1	-
DynCm-3: LITL: LITL-SOP Convert: Static Commissioning Complet		14-Jun-17	0d	DynCm-3: LITL: L	ITL-SOP Convert: Static Commissioning Complete
LITL-SOPConvert: Gantry available for HVdc Seg5 TL & Nfld Elect		15-Jun-17	0d		
DynCm-3: LITL: 8ap1 SOP Converter: STATION STANDALONE TES		15-Jun-17	0d	1	<u> </u>
DynCm-3: LITL: 8ap1 SOP Converter: STATION STANDALONE TES	STING COMPLETE	15-Jun-17	Od	DynCm-3: LITL 8ap1 SOP Conv	erter: STATION STANDALONE TESTING COMPLETE
DynCm-3: LITL: 8ap2 SOP Converter: HVdc LINK ENERIZATION	18-Jul-17	24-Jul-17	Od		†
DynCm-3: LITL: 8ap3 SOP Converter: HVdc LINK LOW LOAD TEST	TING (2 months) 25-Jul-17	22-Sep-17	Od		
DynCm-3: LITL: 8a p3 SOP Converter: HVdc LINK LOW LOAD TEST	TING Complete	22-Sep-17	0d	DynCm-3: LITL: 8	a p3 SOP Converter: HVdc LINK LOW LOAD TESTING Complete 😽
Milestone current	P	age 1 of 1		Project: IPS Cu	rrent curz1 printed: 14-Nov-15
				•	
Activity current				Layout = 540 IPS Float Watch - Co	nverter Filter = TASK filter: ipsC3 float - Converters.
 Milestone Last Month 					

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 18 of 44



confidential Corinne Russell McInnes Cooper Mar 29, 2018 08:48

1.0 Overall Summary Float Watch: C3 – Switchyards



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44



confidential Corinne Russell

1.0 Overall Summary Float Watch: C4 – transmission Lines Innes Cooper

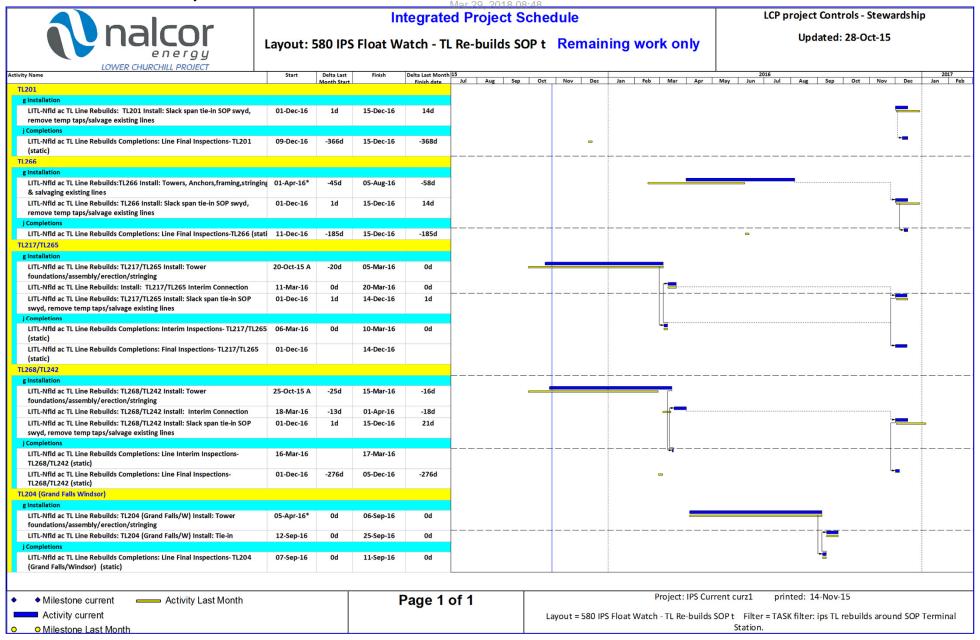
			Intogra	ated Project	t Schedule LCP project Controls - Stewardship
nalcor energy LOWER CHURCHILL PROJECT		La		•	Transmission lines Updated: 28-Oct-15
Activity Name		Start	Finish	Delta Last Montl	th 15 2016 2017 Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jun Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jun Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jun Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jun Feb Mar Apr May Jun Jul Aug Aug
LTA (L3101/L3102) 315kV TL Segment 1/2				Finish date	The first per late that the lines the lines are the first per late that the lines are
LTA-ac Seg1/2: Post Installation Final Inspection (static)	a	80-Jul-16	05-Aug-16	Od	TA-ac Seg1/2: Post Installation Final Inspection (static)
LTA-ac Seg1/2: Connection to MF & CF Switchyard (Slack S		3-Mar-17	16-Mar-17	Od	LTA-ac Seg1/2: Connection to MF & CF Switchyard (Slack Span)
LITL-HVdc LAB Seg1 MF	. ,				
LITL-dcLabSeg1/Electr TL: Post Installation Final Inspection	n (static) 1	6-Sep-16	22-Sep-16	44d	dcLabSeg1/Electr TL: Post installation Final Inspection (static)
LITL-dcLabSeg1/Electr TL: HVdc Seg 1 & Electrode TL Conn Converter (Slack Span>)		7-Jun-17	30-Jun-17	Od	LITL-dcLab\$eg1/Electr TL: HVdc Seg 1 & Electrode TL Connection to MF Converter (Slack Spans)
LITL-HVdc LAB Seg2 SOBI					
LITL-dcLabSeg2/Electr TL: Post Installation Final Inspection	n (static) 3	1-Aug-16	13-Sep-16	60d	LabSeg2/Electr TL: Post Installation Final Inspection (static)
LITL-dcLabSeg2/Electr TL: Connection to Lab TransCmp (Sla		7-Jun-17	30-Jun-17	Od	LITL-dcLabSeg2/Electr TL: Connection to Lab TransCmp (Slack Span>) ==
LITL-HVdc NFLD Seg3 SOBI					
LITL-dcNfSeg3: Installation Final Inspection Nfld (static)	0	8-Mar-17	21-Mar-17	-7d	LITL-dcNfSeg3: Installation Final Inspection Nfld (static)
LITL-dcNfSeg3: Connection to Nfld TransCmp (Slack Span>	.) ()4-Jul-17	17-Jul-17	Od	LITL-dcNfSeg3: Connection to Nfld TransCmp (Slack Span>)
LTA-735kV ac Intercon CF					
LTA 735kV CF: Post Installation Final Inspection (static)	1	1-Oct-16	12-Oct-16	Od	LTA 735kV CF: Post Installation Final Inspection (static)
LTA 735kV CF: Connection to Existing CF Swyd (Slack Span) 0:	3-Mar-17	16-Mar-17	Od	LTA 735kV CF: Connection to Existing CF Swyd (Slack Span)
LTA 735kV CF: Connection to New CF Swyd (Slack Span)	0:	3-Mar-17	16-Mar-17	Od	LTA 735kV CF: Connection to New CF Swyd (Slack Span)
LITL-Electrode TL Lab					
LITL Lab Electr. TL: Post installation Final Inspection (station TL to E Site)	c) (from HVdc 1	0-Sep-16	23-Sep-16	Od	installation Final Inspection (static) (from HVdc TL to E Site)
LITL Lab Electr. TL: Connection to MF Conveter/Grounding span>)	g Site (slack 1	7-Jun-17	23-Jun-17	Od	LITL Lab Electr. TL: Connection to MF Conveter/Grounding Site (slack span>)**
LITL-Electrode TL Nfld					
LITL Nfld Electr. TL: Post installation Final Inspection (stati	ic) 2	0-Jun-16	24-Jun-16	Od	ectr. TL: Post installation Final Inspection (static)
LITL Nfld Electr. TL: Connection to Grounding Site (slack s	pan>) 1	7-Jun-17	23-Jun-17	Od	LITL Nfld Electr. TL: Connection to Grounding Site (slack span>)
LITL-HVdc NFLD Seg4					
LITL-dcNfSeg4: Installation Final Inspection Nfld (static)	0	1-Jun-17	14-Jun-17	-77d	LITL-dcNfSeg4: Installation Final Inspection NfId (static)
LITL-HVdc NFLD Seg5 SP					
LITL-dcNfSeg5: Installation Final Inspection Nfld (static)	2	0-Jun-17	03-Jul-17	0d	LITL-dcNfSeg5: Installation Final Inspection Nfld (static)
LITL-dcNfSeg5: Connection to SP Converter (Slack Span>)	()4-Jul-17	17-Jul-17	Od	LITL-dcNfSeg5: Connection to SP Converter (Slack Span>)
MF HVac TL PH-> MF Swyd					
MFGen-315 PH-SY TL: Post Installation Final Inspection (st	tatic) 1	1-Oct-16	12-Oct-16	0d	MFGen-315 PH-SY TL: Post Installation Final Inspection (static)
MFGen-315 PH-SY TL: Connection to PH (Slack Span)	0	3-Mar-17	16-Mar-17	Od	MFGen-315 PH-SYTL: Connection to PH (Slack Span):
MFGen-315 PH-SY TL: Connection to MF Swyd (Slack Span) 0:	3-Mar-17	16-Mar-17	Od	MFGen-315 PH-SY TL: Connection to MF Swyd (Slack Span)
A Milestone compat			Dogo 4	of 1	Project: IPS Current curz1 printed: 14-Nov-15
Activity Last Month Activity current Milestone Last Month			Page 1	OFT	Layout = 570 IPS Float Watch - Transmission lines Filter = TASK filter: ipsC4 float old.

Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



1.0 Overall Summary Float Watch: C4 - Line Rebuilds Soldiers Pond Area



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44 Corinne Russell McInnes Cooper

2.0 Labrador Transmission Asset (LTA) LTA Analysis – Observations

1) Target Milestone

Target Milestone Overall = LTA Ready for Power Transmission (Power Available) = 04 July 2017

Tracking Milestone = 18 May 2017 forecast date (no change from last month)

NOTE: A tracking milestone simply indicates this month forecast completion date.

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 3.3% Cumulative Planned Progress: 57.6%

Period Forecast Progress 3.3%

Period Earned Progress: 5.2% Cumulative Earned Progress: 60.3%

3) Critical Path:

- CF Switchyard continues to be on critical path to LTA Power Available forecast for May 2017.
- Nalcor Pets projects now are in the LTA subcritical paths (see attched LTA Critical/Subcritical paths PDF)

4) Switchyards: no change from last month

• No change to completion date of static commissioning for either switchyard (CF, MF).

5) 315kV HVac Lines CF-MF: no change from last month

• HVac Seg 1/2 - line construction/stringing progressing with no change this month to HVac Seg 1/2 final inspection date which is end of line construction.

6) 735kV HVac CF Interconnection (Bus Extension): no change from last month

• CF 735kV -bus extension - TL construction start (foundations) not planned until June 2016.



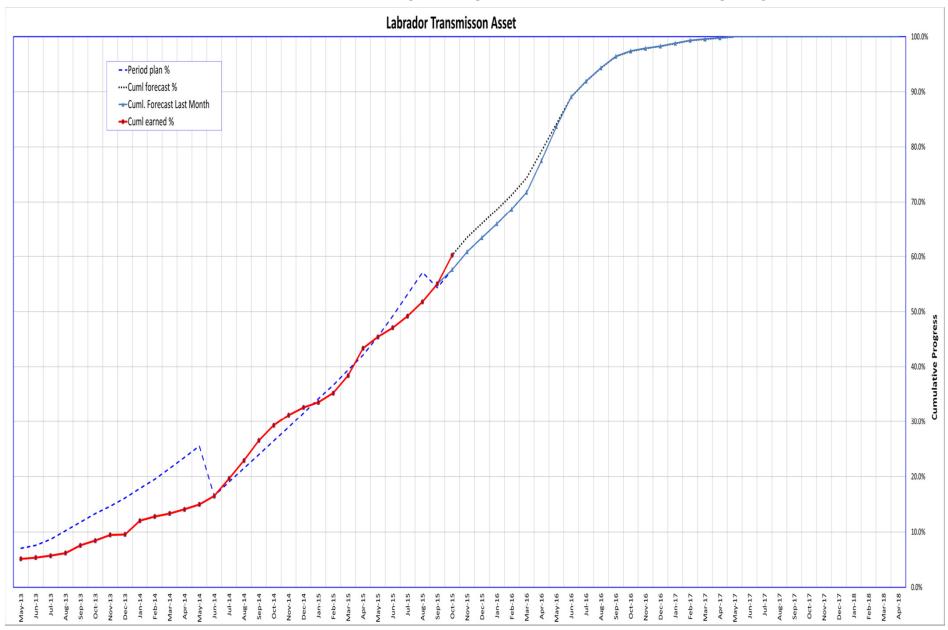
2.0 Labrador Transmission Asset (LTA)

Corinne Russell LTA Summary Schedule Mar 29, 2018 08:48

confidential

1 nalcor		ed Project Sch				L	.CP project (Control - Stev	wardship Pro	ocess
energy	Layout: 2	20 IPS Summa	ry - LTA				Uį	odated: 28-O	ct-15	
Activity Name		delta - Last Month Start	delta - Last Month Finish	12 Q3 Q4	2013 Q1 Q2 Q3 Q4	2014	2015	2016 4 Q1 Q2 Q3 Q4	2017	2018 4 Q1 Q2 Q3
Labrador Transmission As	set (LTA)	0d	0d							
LTA CF Accommodations		0d	0d							
LTA-CF Camp		0d	0d		==					
LTA CF Switchyard		0d	0d							
LTA-CF Swyd EXT		0d	0d						:	
LTA-CF Switchyard		0d	0d		=		Ħ		==	=
LTA-735kV Interconnect at	CF	0d	0d							
LTA-735kV ac Intercon CF		0d	0d			=				
LTA (L3101/L3102) 315kV 1	L Seg1/2 MF-CF	0d	0d							
LTA (L3101/L3102) 315kV	TL Segment 1/2	0d	0d		=				• ;	
LTA (MFATS2) MF Terminal	Station (Switchyard)	0d	0d							
LTA-MF Switchyard		0d	0d			=	Ŧ		≝:	=
			4.54		It amounts 220	IDS Summag: 1	TA Filter TA	ASK filter: Monthly	Report J TA	
Current Constructi Last Month Commis Current Commissioning	sioni	Pag	e 1 of 1		Layout: 220	iro oummary - L	ia Filter: IA	tor. Inter: Monthly	Report -LIA.	
Last Month Constructi										

2.0 Labrador Transmission Asset (LTA) - LTA Engineering/Construction/Commissioning Progress Curve



Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015_{onfidential} 24 of 44
Corinne Russell
McInnes Cooper
Mar 29, 2018 08:48



2.0 Labrador Transmission Asset (LTA) - Engineering/Construction/Commissioning Progress Table

LTA Progress Table **2015 Oct** This Reporting Period Weight Period % Cumulative % Factor % Variance **Earned** Plan Earned Plan Variance C C-B F-E Α 0.0% 0.0% 100.0% 100.0% 0.0% LTA CF Accommodations 1.1% 0.0% 3.1% 73.1% 75.9% 2.8% LTA HVac Transmission Line Seg1/2 - MF to CF 56.0% 3.1% 6.2% 20.9% 2.8% 35.2% 3.7% LTA Churchill Falls Switchyard 4.4% 7.2% 31.5% 14.0% 1.7% -2.8% 13.8% 15.7% 1.9% LTA Muskrat Falls Switchyard 4.5% 8.0% 0.0% 0.0% 0.0% 89.2% 89.2% 0.0% LTA Misc LTA TOTAL 100.0% 3.3% 5.2% 1.9% 57.7% 60.3% 2.6% **Last Reporting Period** Weight Period % **Cumulative %** Factor % Earned Plan Plan Variance Earned Variance C-B F-E В C Ε F Α 1.1% 0.0% 0.0% 100.0% 100.0% 0.0% LTA CF Accommodations 0.0% 56.0% 3.0% 2.8% -0.2% 69.9% 69.7% -0.2% LTA HVac Transmission Line Seg1/2 - MF to CF 0.9% LTA Churchill Falls Switchyard 20.9% 2.0% 2.9% 0.9% 27.1% 28.0% 7.7% 4.7% 9.3% 4.7% LTA Muskrat Falls Switchyard 14.0% 3.0% 14.0% 8.0% 0.0% 0.0% 89.2% 0.0% LTA Misc 0.0% 89.2% LTA TOTAL 100.0% 2.5% 3.3% 0.7% 54.3% 55.1% 0.7%

Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44

Corinne Russell

McInnes Cooper

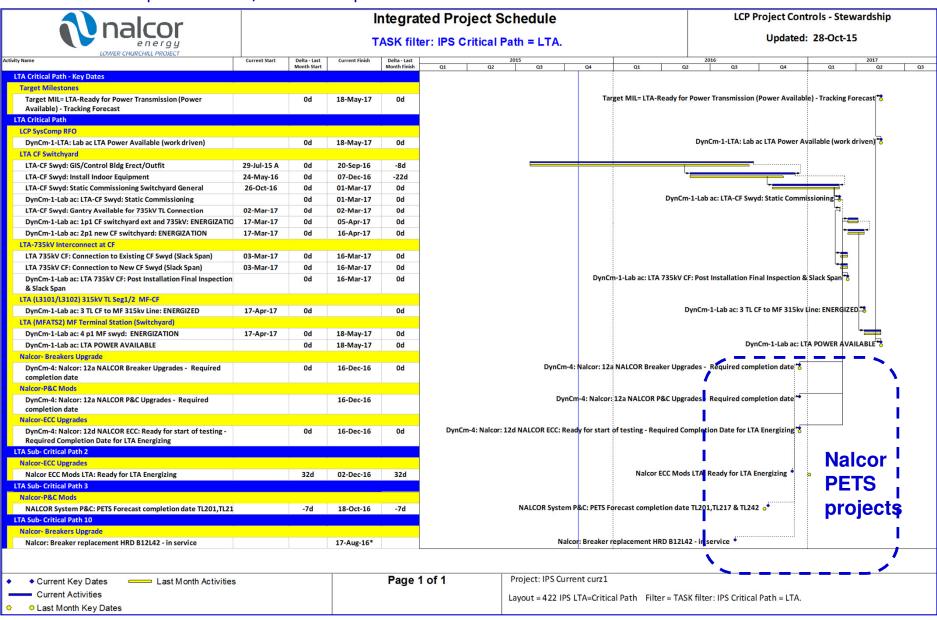
Mar 29, 2018 08:48



2.0 Labrador Transmission Asset (LTA)

LTA Critical Path

NOTE: For complete Critical / Subcritical path schedule see attachment



Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



3.0 Labrador Island Transmission Link (LITL) McIng Too Analysis – Observations

1) Target Milestone

- Target Milestone Overall=LITL-1st Power Transfer Lab to Nfld = 18 July 2017 (Tracking Milestone) No change from last month
- Target Milestone Overall=LITL-Ready for Sustainable Power Transfer Labrador to Newfoundland= 11 Nov 2017

Tracking Milestone = 22 Sept 2017 forecast date - No change from last month

NOTE: A tracking milestone simply indicates this month forecast completion date.

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 2.8% Cumulative Planned Progress: 31.9%

Period Forecast Progress 2.8%

Period Earned Progress: 2.0% Cumulative Earned Progress: 30.8%

3) Critical Path: No change from last month

- HVdc segment Seg 5 is driving the LITL critical path.
- HVdc segment Seg 4 lost 77 days float this month with 19 days float remaing to critical path.
- Schedule pressures increased this month on Seg 4 & Seg 5 after foundations & towers start delayed 3 months

4) SOBI Crossing

- Completion of the rock loading marine terminal
- Completion of placement /termination 1/3 land cables at Shoal Cove

5) HVdc Line

- HVdc Lab Seg 1 = final inspection date is Sep 2016 which is 44 days earlier than last month (see page 19)
- HVdc Lab Seg 2 = final inspection date is Sep 2016 which is 60 days earlier than last month (see page 19)
- HVdc Nfld Seg 3 = final inspection date is March 2017 which is 7 days later than last month (see page 19)
- HVdc Nfld Seg 4 = final inspection date is June 2017 which is 77 days later than last month (see page 19)
- HVdc Nfld Seg 5 = final inspection date is July 2017 no change from last month

6) Converters / Switchyards / Sych Cond

- Converters/switchyards: Work progressing with no delay on completion date of static commissioning.
- Sych Cond: Work progressing with 4 day delay to completion date of static commissioning.

7) SOP Transmission Line Rebuilds

Work continues with reliance on outages. (see pages 21 and 41)

8) Transition Compounds / Grounding (Electrode) Stations

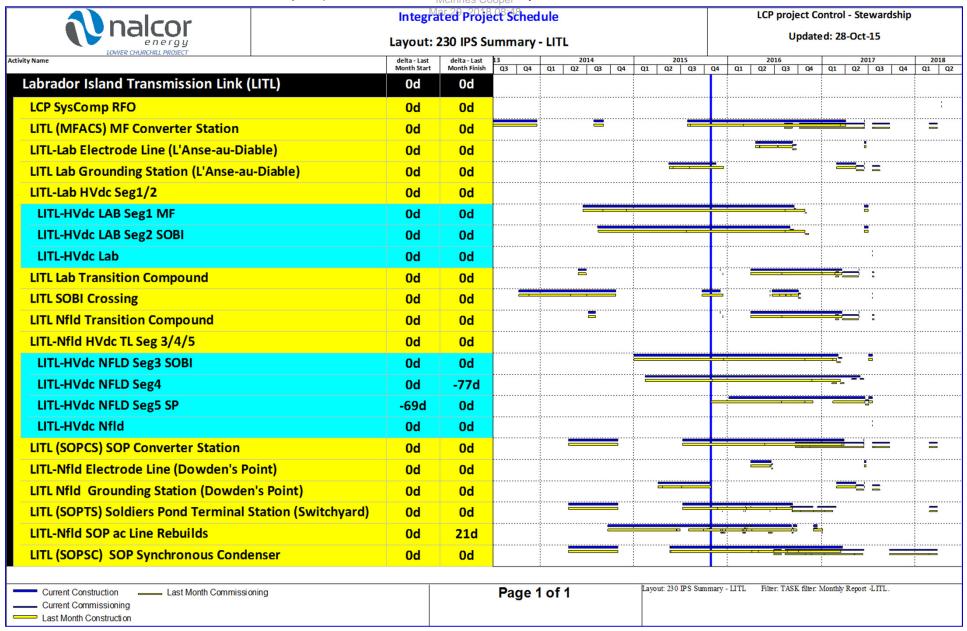
- Grounding stations work progressing with no delay on completion date of static commissioning.
- Transition compound civil/structures work to begin Apr 2016.



3.0 Labrador Island Transmission Link (LITL)

LITE Summary Schedule

confidential

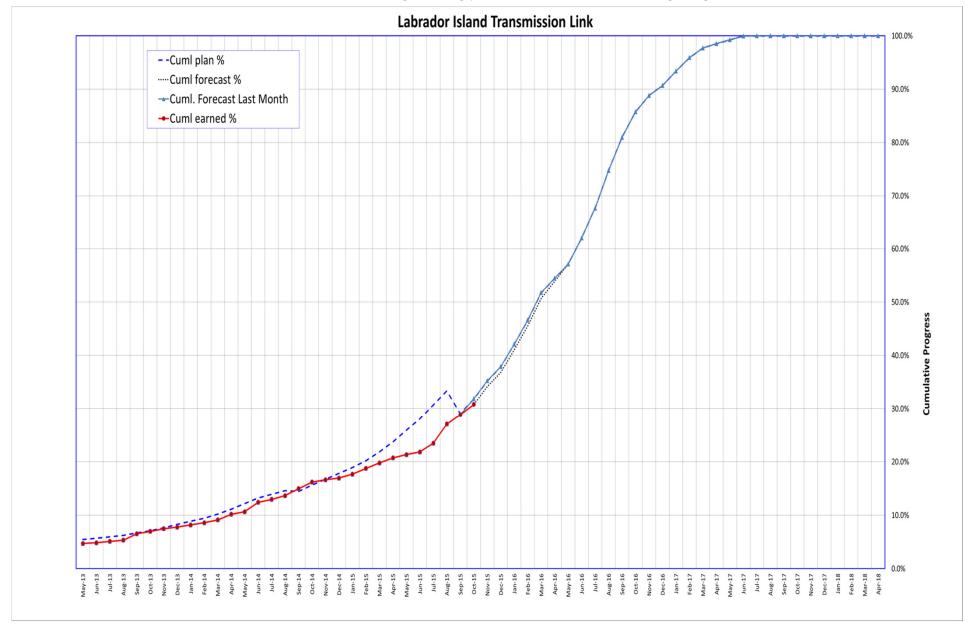


Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015, nfidential 28 of 44



3.0 Labrador Island Transmission Link (LITL) - LITL Engineering/Construction/Commissioning Progress Curve



Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015_{onfidential} 29 of 44
Corinne Russell
McInnes Cooper
Mar 29, 2018 08:48



3.0 Labrador Island Transmission Link (LITL) - Engineering/Construction/Commissioning Progress Table

Mar 29, 2018 08:48

LIIL	Progres	SI		2015	19170 1001 1101				
				inis Kep	orting P	eric	oa		
	Weight			Period %			(Cumulative 9	6
	Factor %		Plan	Earned	Variance		Plan	Earned	Variance
	Α		В	С	С-В		E	F	F-E
LITL Muskrat Falls Converter	5.7%		3.0%	0.9%	-2.1%		9.6%	7.1%	-2.5%
LITL Soldiers Pond Converter	5.8%		4.8%	2.1%	-2.7%		20.4%	15.6%	-4.8%
LITL HVdc Transmission Line Seg 1/2	19.3%		5.3%	5.4%	0.1%		36.7%	36.2%	-0.5%
LITL HVdc Transmission Line Seg 3/4/5	35.3%		1.7%	0.7%	-1.0%		8.0%	6.7%	-1.3%
LITL Grounding (Electrode) Sites	1.7%		5.9%	7.0%	1.1%		65.2%	70.4%	5.2%
LITL Transition Compounds	1.8%		0.0%	0.0%	0.0%		32.9%	32.9%	0.0%
LITL SOBI Cable Crossing	18.0%		1.3%	1.8%	0.5%		69.1%	69.3%	0.2%
LITL Soldiers Pond Switchyard	3.2%		5.1%	5.0%	-0.1%		31.3%	28.1%	-3.2%
LITL Soldiers Pond Synchronous Condensors	4.9%		4.9%	1.1%	-3.8%		31.4%	28.1%	-3.3%
LITL Misc	4.3%		0.0%	0.6%	0.6%		79.0%	80.0%	1.0%
LITL TOTAL	100.0%		2.8%	2.0%	-0.8%		31.9%	30.8%	-1.1%
				Last Rep	orting P	eri	od		
	Weight			Period %				6	
	Factor %		Plan	Earned	Variance		Plan	Earned	Variance
	Α		В	с	С-В		E	F	F-E
LITL Muskrat Falls Converter	5.7%		1.5%	1.2%	-0.3%		6.5%	6.2%	-0.3%
LITL Soldiers Pond Converter	5.8%		3.7%	1.6%	-2.1%		15.6%	13.5%	-2.1%
LITL HVdc Transmission Line Seg 1/2	19.3%		3.5%	2.9%	-0.6%		31.4%	30.8%	-0.6%
LITL HVdc Transmission Line Seg 3/4/5	35.3%		0.6%	0.3%	-0.3%		6.3%	6.0%	-0.3%
LITL Grounding (Electrode) Sites	1.7%		6.4%	10.6%	4.2%		59.2%	63.4%	4.2%
LITL Transition Compounds	1.8%		0.0%	0.0%	0.0%		32.9%	32.9%	0.0%
LITL SOBI Cable Crossing	18.0%		1.4%	1.0%	-0.4%		67.9%	67.5%	-0.4%
LITL Soldiers Pond Switchyard	3.2%		6.3%	9.0%	2.7%		26.2%	23.1%	2.7%
LITL Soldiers Pond Synchronous Condensors	4.9%		5.0%	5.5%	0.5%		26.5%	27.0%	0.5%
LITL Misc	4.3%	3.6	0.0%	0.4%	0.4%		79.0%	79.4%	0.4%
LITL TOTAL	100.0%		2.0%	1.8%	-0.2%		29.1%	28.8%	-0.3%

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44



confidential

3.0 Labrador Island Transmission Link (LITL)

Corint Corintical Path 1st Power transfer Lab-> Nfld

NOTE: For complete Critical / Subcritical path schedule see attachment

nalcor		Integ	grated Pro	oject Sche	dule				LCF	Project (Controls - Ste	wardship)	_
energy		1st	Power tran	sfer Lab -> N	fld					Upda	ted: 28-Oct-1	.5		
Activity Name		Current Start Delta - Last Current Finish Month Start				15 Q3 Q4	Q1	Q2	2016 Q:	Q4	Q1 Q	2017 2 Q3		24
1st Power Transfer-CP-KD														
Target Milestones														
Target MIL=Overall-LITL-1st Power Transfer La Newfoundland - Tracking Forecast	abrador to	18-Jul-17	0d		0d	ower Transfe	r Labrad	lor to N	lewfou	ndland - 1	Fracking Fored	ast 🕇		
1st Power Transfer-CP														
LCP SysComp RFO														
DynCm-3: LITL: All HVdc TL COMPLETED AND C	CONNECTED		0d	17-Jul-17	0d	DynCm-3:	LİTL: All	HVdc '	TL CON	IPLETED A	ND CONNECT	ED 🕏		
DynCm-3: LITL: SOP & MF CONVERTER STAND/ HVdc LINK COMPLETED	ALONE TESTING &	18-Jul-17	Od		Od	CONVERTER S	TANDAI	LONE T	ESTING	& HVdc	LINK COMPLE	red 🍮		
LITL (MFACS) MF Converter Station														
DynCm-3: LITL: 7a p2- MF Converter: HVdc LIN	K ENERGIZATION	18-Jul-17	0d	24-Jul-17	0d							 8		
LITL-Lab HVdc Seg1/2														
DynCm-3: LITL: 6a HVdc TL and Electrode Line	Lab: Energized	18-Jul-17	0d		0d	DynCm-3: LIT	L: 6a HV	dc TL a	and Ele	ctrode Li	ne Lab: Energi	zed 🥇		
LITL-Nfld HVdc TL Seg 3/4/5														
LITL-dcNfSeg5: ROW Clearing / Survey & Towe	er Spotting	07-Jan-16*	-69d	21-Sep-16	-55d	1 -	_				-			
LITL-dcNfSeg5: Civil Works - foundations		30-Jun-16	-181d	21-Jan-17	-83d		<u> </u>		4					
LITL-dcNfSeg5: Tower Assembly / Install		21-Jul-16	-171d	07-Mar-17	-97d		_		4			—∖\		
LITL-dcNfSeg5: Conductor/OPGW Install		15-Feb-17	0d	19-Jun-17	0d						<u>-</u>	╤ ť		
LITL-dcNfSeg5: Installation Final Inspection N	fld (static)	20-Jun-17	0d	03-Jul-17	0d							怫		
LITL-dcNfSeg3: Connection to Nfld TransCmp	(Slack Span>)	04-Jul-17	0d	17-Jul-17	0d	1						12		
LITL-dcNfSeg5: Connection to SP Converter (SI	ack Span>)	04-Jul-17	0d	17-Jul-17	0d							≒ ≡		
DynCm-3: LITL: LITL-dcNfSeg3: Post Installation & Slack Span Connection	n Final Inspection		Od	17-Jul-17	Od	g3: Post Instal	lation F	inal Ins	pectio	n & Slack	Span Connect	ion 🕏		
DynCm-3: LITL: LITL-dcNfSeg5: Post Installatio & Slack Span Connection	on Final Inspection		Od	17-Jul-17	Od	5: Post Instal	lation F	inal Ins	pectio	n & Slack	Span Connect	ion 🕏		
DynCm-3: LITL: 6c HVdc TL and Electrode Line	Nfld: Energized	18-Jul-17	0d		0d	DynCm-3: LITL	: 6c HV	dc TL a	nd Elec	trode Lin	e Nfld: Energi	zed 🤻		
LITL (SOPCS) SOP Converter Station														
DynCm-3: LITL: 8a p2 SOP Converter: HVdc LIN	K ENERIZATION	18-Jul-17	0d	24-Jul-17	0d							-		
LITL (SOPCS) SOP Converter Station	_			24-Jul-17		DynCm-3: LITL	: 6c HVc	dc TL a	nd Elec	trode Lin	e Nfld: Energi	zed 🍣		
◆ ◆ Current Key Dates —— Last Month Activities		Pa	ge 1 of 1	Proje	ect: IPS Current	curz1								-
Current Activities				Layou	ut = 452 IPS LITI	L=1st Pwr xfer Crit	ical Path	Filter =	TASK fi	ter: IPS Crit	tical Path = LITL.			
Last Month Key Dates														

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 31 of 44



4.0 Muskrat Falls Generation (MFGen) MFGen Analysis Tobservations

1) Target Milestone

Target Milestone: MFGen 1st power from Muskrat Falls = (**On hold**, see below for details)

2) Overall Engineering/Construction/Commissioning Progress

Period Planned Progress: 2.0% Cumulative Planned Progress: 52.7%

Period Forecast Progress: 2.0%

Period Earned Progress: 1.8% Cumulative Earned Progress: 38.5%

3) Critical Path(s):

- Diversion River Closure (priority 1a) see page 14
- On schedule for start on 6 July 2016
- Diversion Winter Headpond El. 25m (priority 1b) see page 15
- On schedule for start on 26 Oct 2016
- Diversion Impoundment Full Supply Level El. 39m (priority 1c) see page 16
- (On hold, see below for details)

4) Reservoir Clearing:

- Labour transferred to ROW clearing in LITL, forecast for restart in July 2016 with completion in Dec 2016.

5) North Spur:

- Work progressing with all milestones forecast to be achievable.

6) Spillway

- Spillway: work is progressing on schedule for priority p1a: River Closure.

7) Transition Dams/North & South Dams

- Work began on Upstream Cofferdam (5) Groins 1&2 to EL 17m (2015 scope) CH0009

8) Powerhouse:

- A review of the C1 (Muskrat Falls Generation) work plan is underway, and implementation of an updated C1 schedule will remain on hold pending acceptance of agreed actions and mitigations plan.
- Work progressing on all areas and removal of ICS (Integrated Cover System) has started.

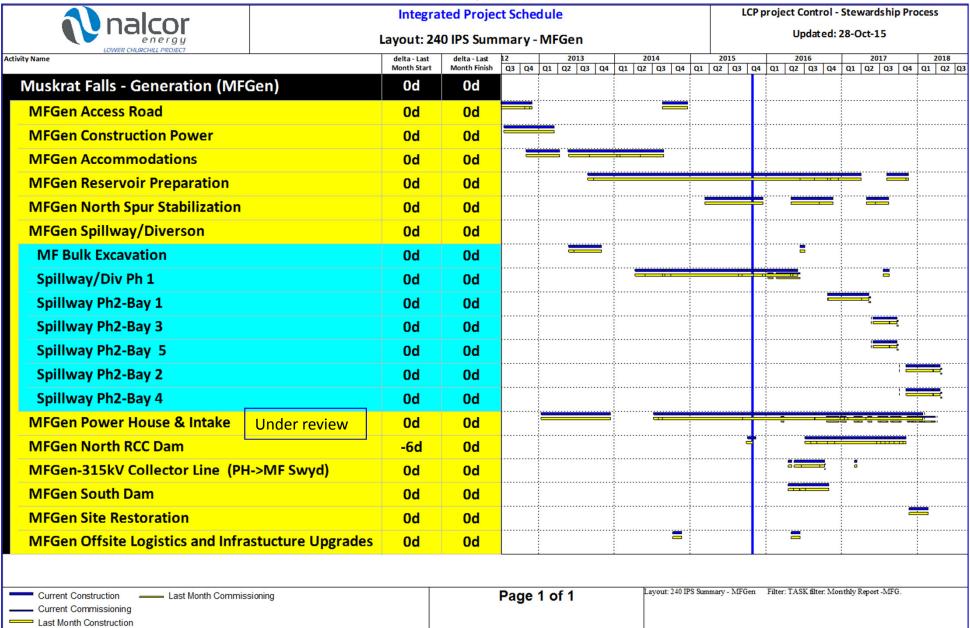


4.0 Muskrat Falls Generation (MFGen)

MFGen Summary Schedule

Mar 29, 2018 08:48

confidential

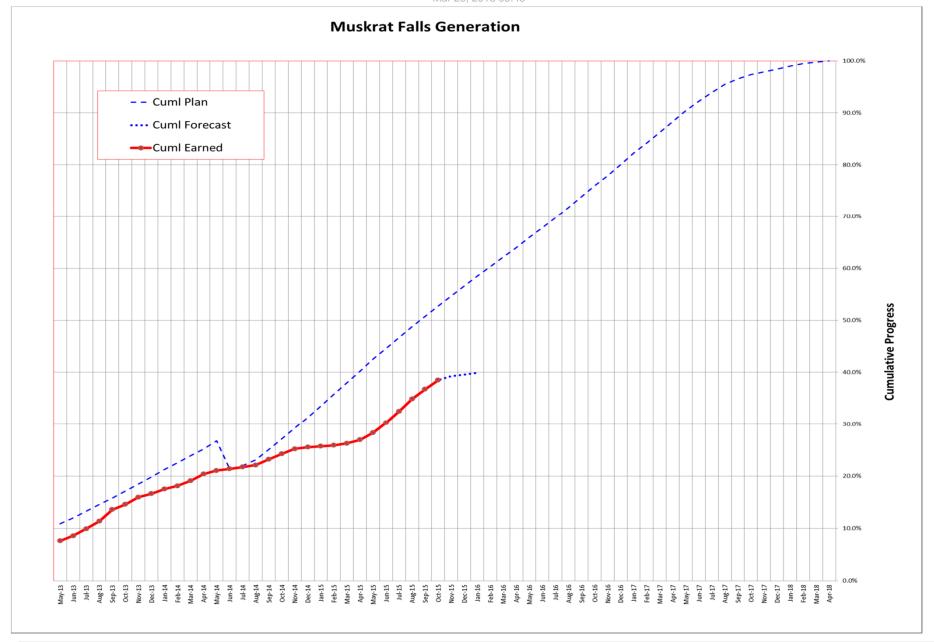


Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 of 44



4.0 Muskrat Falls Generation (MFGen) - MFGen Engineering/Construction/Commissioning Progress Curve



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 34 of 44
Corinne Russell
McInnes Cooper
Mar 29, 2018 08:48



4.0 Muskrat Falls Generation (MFGen) - MFGen Engineering/Construction/Commissioning Progress Table

			This Re	porting Pe	riod					
	Weight	Period %				Cumulative %				
	Factor %	Plan	Earned	Variance	Plan	Earned	Variance			
	Α	В	С	С-В	E	F	F-E			
MFG Road/Camp/Constr. Power	7.9%	0.0%	0.0%	0.0%	100.0%	99.8%	-0.2%			
MFG Reservoir Preparation	6.5%	0.0%	0.0%	0.0%	60.8%	60.8%	0.0%			
MFG Spillway & Gates	11.4%	2.2%	2.7%	0.5%	58.9%	64.7%	5.8%			
MFG North Spur Stabiliztion	4.2%	9.4%	9.4%	0.0%	37.2%	37.2%	0.0%			
MFG North Dam (incl North Transition Dam)	7.5%	0.0%	0.7%	0.7%	0.0%	2.5%	2.5%			
MFG Powerhouse & intake	54.9%	2.7%	1.8%	-0.9%	47.2%	22.0%	-25.2%			
MFG South Dam (incl South Transition Dam)	1.1%	0.0%	1.0%	1.0%	0.0%	5.3%	5.3%			
MFG Misc:Eng/ 315kV/Site Rest./logistic	6.5%	0.0%	0.0%	0.0%	83.5%	83.5%	0.0%			
MFGen TOTAL	100.0%	2.0%	1.8%	-0.2%	52.8%	38.5%	-14.3%			
			Last Re	porting Pe	rio <mark>d</mark>					
	Weight		Period %			Cumulative 9	6			
	Factor %	Plan	Earned	Variance	Plan	Earned	Variance			
	Α	В	С	С-В	E	F	F-E			
MFG Road/Camp/Constr. Power	7.9%	0.0%	0.0%	0.0%	100.0%	99.8%	-0.2%			
MFG Reservoir Preparation	6.5%	0.0%	0.0%	0.0%	60.8%	60.8%	0.0%			
MFG Spillway & Gates	11.4%	2.2%	4.0%	1.8%	56.7%	62.0%	5.3%			
MFG North Spur Stabiliztion	4.2%	2.8%	11.2%	8.4%	27.8%	27.8%	8.4%			
MFG North Dam (incl North Transition Dam)	7.5%	0.0%	0.4%	0.4%	0.0%	1.8%	1.8%			
MFG Powerhouse & intake	54.9%	2.6%	1.7%	-0.9%	44.5%	20.2%	-24.3%			
MFG South Dam (incl South Transition Dam)	1.1%	0.0%	0.0%	0.0%	0.0%	4.3%	4.3%			
MFG Misc:Eng/ 315kV/Site Rest./logistic	6.5%	0.3%	0.0%	-0.3%	83.5%	83.5%	0.0%			
MFGen TOTAL	100.0%	2.0%	1.9%	-0.1%	50.7%	36.7%	-14.0%			

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 35 of 44
Corinne Russell
McInnes Cooper



5.0 Nalcor Operations and Maritime Link

Nalcor Operations

- Breaker Upgrades
- System Protection and Control Upgrades
- Energy Control center Upgrades
- > TL 267 and associated switchyard modifications

LCP/Nalcor Operations

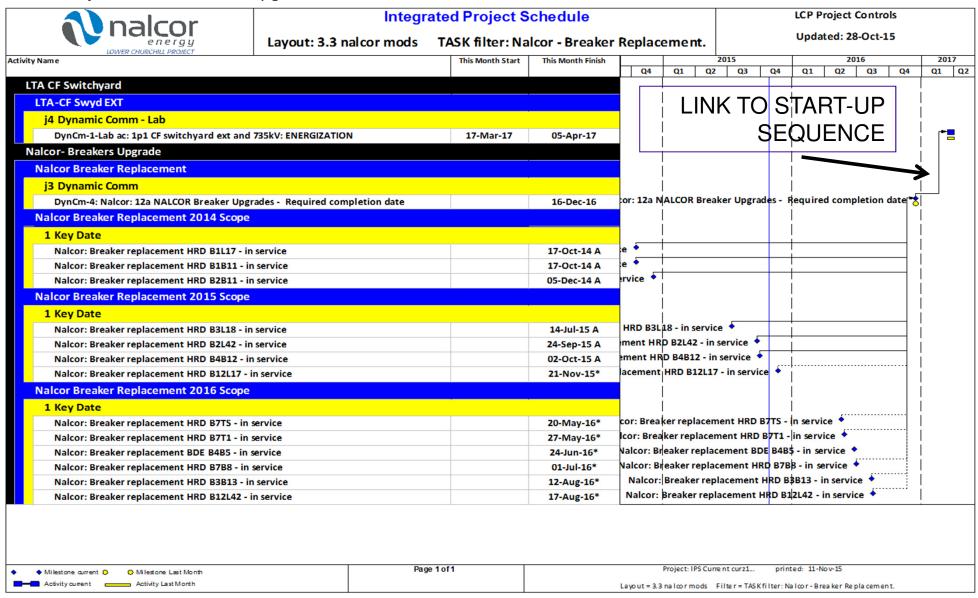
Line Rebuilds Soldiers Pond Area

Maritime Link

Maritime Link



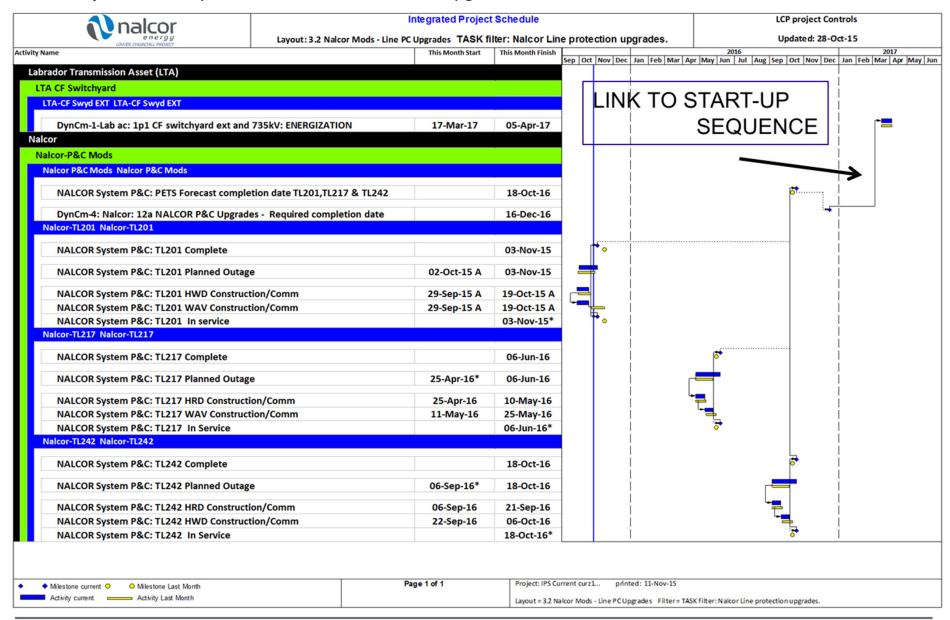
5.0 Nalcor Operations and Maritime Link Start-Up Interface 8:48 Nalcor Operations - Breaker Upgrades



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 on fidential 37 of 44



5.0 Nalcor Operations and Maritime Link Start-Up Interface. Nalcor Operations - System Protection and Control Upgrades



Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 onfidential 38 of 44



5.0 Nalcor Operations and Maritime Link Start-Up Interface Nalcor Operations - Energy Control center Upgrades

A nalcor	Integrated Project Schedule				LCP Project Controls			
energy	Layout: 3.3 Nalcor Mods - ECC Upgrades		TASK filter: Nalcor - ECC		Updated: 28-Oct-15			
ivity Name		This Month Start	This Month Finish	Q1 Q2	Q3 Q4	2017 Q1 Q2 Q3 Q4		
LITL								
DynCm-3: LITL: LITL HVdc LINK ENERGIZED		18-Jul-17		LINKs TO S		18-Jul-17,		
LTA-CF Swyd EXT				56	QUENCE	\rightarrow		
DynCm-1-Lab ac: 1p1 CF switchyard ext and 7	735kV: ENERGIZATION	17-Mar-17	05-Apr-17	1 '		-		
Nalcor-ECC Upgrades - LTA						4		
Nalcor ECC Mods LTA: Receive Points	23-Jun-16*	17-Nov-16	-					
Nalcor ECC Mods LTA: Ready for LTA Energizing			02-Dec-16	1	02-Dec-16			
Nalcor ECC Mods LTA: Completion of EMS Displays, EMS Database			02-Dec-16	1	02-Dec-16			
DynCm-4: Nalcor: 12d NALCOR ECC: Ready for start of testing - Required Completion Date for LTA Energizing			16-Dec-16		16-Dec-16 →			
Nalcor-ECC Upgrades - LITL					i			
Nalcor ECC Mods LITL: Receive Points	18-Mar-16*	29-Nov-16						
Nalcor ECC Mods LITL: Ready for LITL Energizing			14-Dec-16		14-Dec-16 📆			
Nalcor ECC Mods LITL: Completion of EMS Displays, EMS Database			14-Dec-16		14-Dec-16			
Nalcor: NALCOR ECC: Ready for start of testing - Required Completion Date for LITL Energizing			18-Apr-17		18	-Apr-17 [·] →		
Nalcor-ECC Upgrades - MFG					i			
Nalcor ECC Mods MFG: Receive Points		27-Feb-17*	27-Sep-17	1	ļ			
Nalcor ECC Mods MFG: Completion date MFG			09-Oct-17			09-Oct-17		
Nalcor: NALCOR ECC MFG: Ready for start of testing - Required Completion Date for MFG Energizing To be determined			09-Oct-17		ļ	09-Oct-17		
Nalcor ECC Mods MFG: Development of EMS Displays, EMS Database			09-Oct-17		i i	09-Oct-17 →		
Nalcor-ECC Upgrades - Maritime Link	C				i			
Nalcor ECC Mods ML: Receive Points		12-Oct-16*	17-Jan-17]		7		
Nalcor ECC Mods ML: Completion date ML			01-Feb-17		01-Feb-1	7		
Emera: Ready for start of testing - Required Completion Date -to be determined			01-Feb-17		01-Feb-1	7 🕶		
Nalcor ECC Mods ML: Development of EMS Displays, EMS Database ML			01-Feb-17		01-Feb-1	7'♣		
◆ Milestone current	Page 1 of	1		Project: IPS Cur	rent curz1 printed	: 11-Nov-15		
Activity current			Layout	= 3.3 Nalcor Mods - ECC U	pgrades Filter = TASK	filter: Nalcor - ECC Upgrades.		

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015 of 44



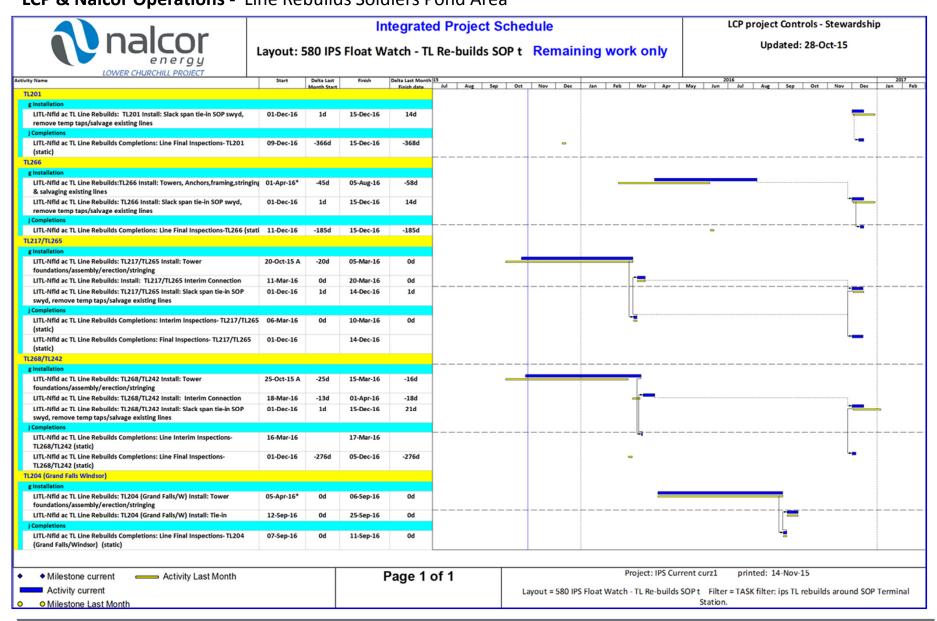
5.0 Nalcor Operations and Maritime Link Start-Up Interface Nalcor Operations - TL 267 and associated switchyard modifications

nalcor	Integrated Project Schedule				LCP Project Controls						
energy	Layout: 3.4 Nalcor Mods - TL 267 TASK filter: Nalcor			- TL267.	Updated: 28-Oct-15						
ivity Name		This Month Start	This Month Finish	2016 Q1 Q2 C	13 Q4	Q1	201 Q2	7 Q3 Q4	Q1	2018 Q2	
LCP SysComp RFO							1	4.	1		
ить				LINK TO	SEQUE						
DynCm-3: LITL: LAB REACTIVE SUPPORT (from MFG Unit 1/2/3)			25-Feb-18		OLQOLI	L	25-Feb-1			8	
Nalcor-TL267						~					
Key Dates						 		-	-		
DynCm-4: Nalcor: 12b NALCOR TL 267 Completion Date		25-Feb-18	į				25-Feb-18 •				
Nalcor: TL267 Complete			01-Mar-18			ĺ		01-Mai	-18 *	7	
Nalcor-TL267-TL									1		
Nalcor: TL267 TL ROW	16-May-16*	31-Jan-17									
Nalcor: TL267 TL Tower Foundation/E	01-Sep-16*	01-Feb-18		° ►				—			
Nalcor: TL267 BDETS2 terminal statio	01-May-17*	01-Feb-18			 			#			
Nalcor: TL267 WAV terminal station r	28-Jun-17*	09-Jan-18		i -				-			
Nalcor: TL267 TL In service		02-Feb-18	01-Mar-18			İ			l	_	
Nalcor: TL267 TL In service		02-Feb-18	01-Mar-18			<u> </u>			<u> </u>		

Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 40 of 44
Corinne Russell
McInnes Cooper



5.0 Nalcor Operations and Maritime Link Start-Up Interface LCP & Nalcor Operations - Line Rebuilds Soldiers Pond Area

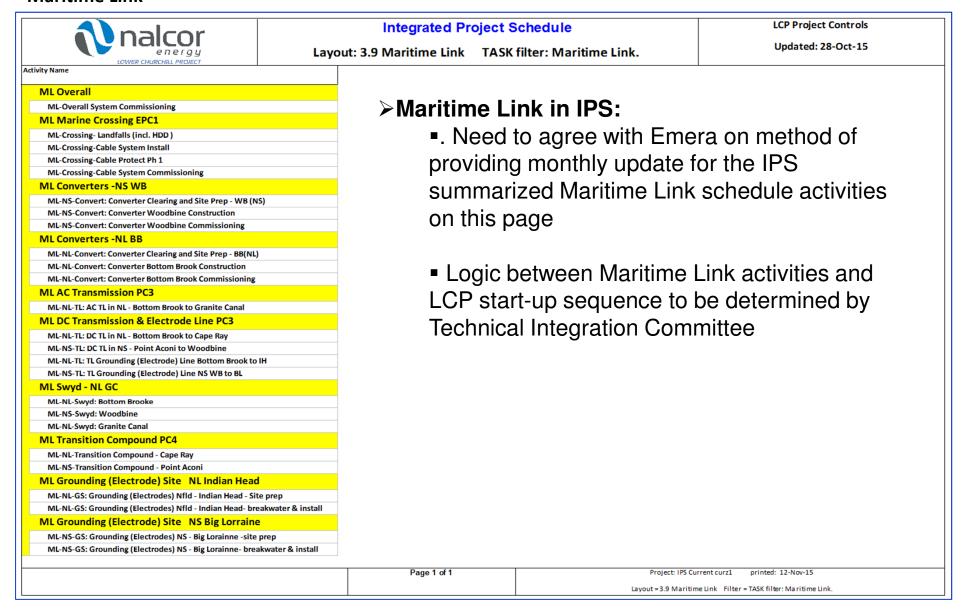


Project Stewardship: IPS Monthly Schedule & Progress Analysis

Oct 2015 Onfidential 41 of 44
Corinne Russell
McInnes Cooper



5.0 Nalcor Operations and Maritime Link Maritime Link



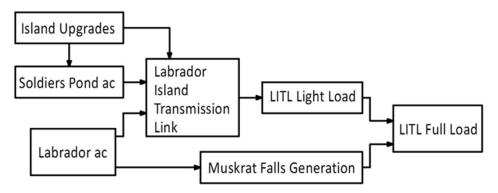
Project Stewardship: IPS Monthly Schedule & Progress Analysis Oct 2015_{onfidential} 42 of 44
Corinne Russell
McInnes Cooper



6.0 RFO Start-up Sequences

IPS Start-Up Verification - Status of development

The Ready for Operations TIC (Technical Integration Committee) start-up sequence (in simplified block diagram form):



The Ready for Operations TIC (Technical Integration Committee) report concerning the start-up sequence was issued May 2014.



End of Report

Lower Churchill Project Delivery Team Project Controls

