NLH 2013 Amended General Rate Application
Undertaking - 174
Filed: Dec 2, 2015 Board Secretary:

Undertaking 174

Undertake to provide me with any materials in the contract or any documentation that would show that with regard to the expected December 2014 completion date.

The contract document, which can be found in the response to GT-DD-NLH-001 has several references to completion of work in December 2014. Refer to pages 74, 75, 76, 333, 350, 433, 468 of this attachment.

The bi-weekly reports that were submitted to the Board also provide schedule updates, which show the December 2014 completion date. As an example, attached is the update from Aug. 15, 2014. All of the bi-weekly reports are available on the Board's website.

Supply and Installation of a 100 MW Combustion Turbine Generator

Status Update Briefing – August 15, 2014





Contents

- Project Dashboard
- Progress & Schedule Summary
- Cost Summary (S-Curve)
- Risk Analysis
- Project Photos

(Includes only material updated since July 23, 2014)



Project Dashboard

The project is progressing according to plan and in compliance with Safety, Quality, Schedule, and Cost.





Progress & Schedule Summary

- Excavation for fuel unloading station is underway
- Containment berm for fuel storage tanks is nearing completion
- 3. Generator Step Up (GSU) transformer foundation is complete
- 4. Auxiliary transformer foundations are complete



Progress & Schedule Summary

- 5. Installation of various duct banks continues
- 6. Air inlet filter house foundation is complete
- 7. Turbine and GSU transported between Bay Bulls Marine Base and Holyrood Station Major Milestone Achieved.
- 8. GSU Placed onto foundation on schedule
- 9. Transmission Line construction is proceeding on plan.



Progress & Schedule Summary

- 10. Terminal station interconnection work has started on schedule.
- 11. Overall schedule is tracking in accordance with plan and ready for service date remains December 2014. See attached schedule showing progress to date.



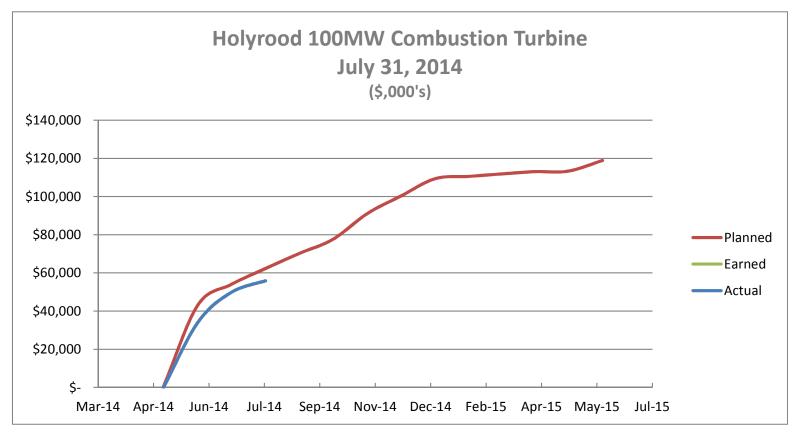
Level 2 – Summary Schedule

Summary level schedule provided below.

A	ectivity ID Activity Nan	Activity Name	Remaining		Finish	Total Float		Qtr 2, 2014			Qtr 3, 2014			Qtr 4, 2014			Qtr 1, 2015	
			Duration			ar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	F	
	100 MW Combustion Turk	oine (Integrated)	107.5	03-Mar-14 A	19-Jan-15	-13.0	:								$\overline{}$		Т	
Г	Milestones - Key Dates		11.0	17-Mar-14 A	22-Dec-14	3.5	† 								 >			
ı	EPC Contract Preparation		0.0	31-Mar-14 A	30-May-14 A		-	† •										
ı	Enabling Works		30.0	03-Mar-14 A	06-Oct-14	56.5	† 	+			1	† 	V					
ı	System Operations Interfa	ces	80.0	12-Jun-14 A	08-Dec-14	14.5			▽	<u>. </u>	:	<u>: </u>	<u>: </u>	i	÷▽			
Г	Terminal Station		69.4	11-Apr-14 A	21-Nov-14	25.1	∇-			· · · · · · · · · · · · · · · · · · ·	-	-			Ť	Ī	1	
r	Combustion Turbine Interf	ace	107.5	26-May-14 A	19-Jan-15	-13.0		V							\leftarrow			
Г	Water Supply/Effluent		25.0	02-Jun-14 A	17-Sep-14	69.5			v——	<u> </u>	:							
1	Transmission & Distribut	ion	15.5	09-Jul-14 A	02-Sep-14	0.0	İ			v-	1	Ÿ			İ			
Г	General & Milestones		5.0	09-Jul-14 A	02-Sep-14	0.0				∨——	-	<u>.</u>						
۲	Materials		8.3	12-Aug-14	21-Aug-14	9.7	-				₩	ļ	†	·	†	<u> </u>		
-	Installation Work		10.3	18-Jul-14 A	26-Aug-14	5.3				∨—								
٦	NALCOR - Simple Cycle	x Westinghouse 501 D5A - B-1 - N	EW 130.3	01-May-14.A	26-Dec-14	0.0		Ÿ——			1	<u>: </u>	! 	+	 -			
Ī	Payment Milestones			21-May-14 A	05-Dec-14	25.6		∨—		:		:	:	:	÷⊽		İ	
ŀ	Pre Project		41.4	01-May-14 A	01-Oct-14	56.8		y .					Ÿ		İ			
٢	Pre EPC		0.0	07-May-14 A	19-Jul-14 A		1	V				†	†	1	†	†	+-	
-	Engineering		49.0	12-May-14 A	10-Oct-14	49.2		∨—				-	-					
-	Procurement		110.0	16-May-14 A	03-Dec-14	20.3		∨—			 				÷	-	-	
٦	Construction		107.8	02-Jun-14 A	02-Dec-14	22.6			,—	:		:	_	÷	-			
F	Comissioning and Start Up		92.8	13-Sep-14	26-Dec-14	0.0						· -		-			1	



Cost Summary - S-Curve



Note: earned = actual for this report



Risk Analysis

A 3rd party facilitated risk workshop was held on June 26th.

Risk Register was produced during the workshop. Fifty + risks identified.

Risk mitigation plan in place and being used to manage risk during execution of the project.



Risk: Construction activities lead to contact with energized lines leading to safety incident

Mitigation: Relocate lines, power line hazard training for operators, use permit system, prepare lift plans, de-energize lines where possible,



Risk: Unfamiliarity with new equipment leads to delay in commissioning

Mitigation: Training included in EPC contract; engage operations and commissioning personnel early in the process;



Risk: Labour issues at the plant/TRO leads to work disruption and delay in project

Mitigation: Contract terms currently under negotiation; maintain open communications with stakeholders



Risk: Lack of coordination of work with all of the work crews on site leads to safety incident

Mitigation: HSE Plans; Site Orientations; Contractor coordination meetings; toolbox meetings;



Risk: Aggressive project schedule does not allow for any delay or rework in design – leads to schedule delay

Mitigation: Close coordination between fast-track design and construction teams; regular coordination meetings; field engineering engaged with design team.



Risk: Delay in delivery of equipment and/or materials leads to schedule delay

Mitigation: expediting; order materials as early as possible; identify long lead items early in project; choose appropriate shipping method.



Risk: Lack of available of resources to execute the Holyrood terminal station P&C work

Mitigation: Engage external resources where required.



Project Photos



Photo 1 – CTG Site - Holyrood

CTG Foundation



Aux XFMR Foundation

GSU Foundation

Air Inlet Foundation



Photo 2 – CTG Foundation - Holyrood





Photo 3 – Auxiliary Transformer Foundation - Holyrood





Photo 4 – Fuel Tank Area - Holyrood





Photo 5 – Duct Banks - Holyrood





Photo 6 – Transmission Line Construction - Holyrood





Photo 7 – Turbine Transport– Holyrood, NL





Photo 8 – GSU and Turbine Arriving at Holyrood





Photo 9 – Turbine at Holyrood





Photo 10 – GSU Placement on Foundation - Holyrood





Photo 11 – GSU Placement on Foundation - Holyrood





Photo 12 – GSU Placed on Foundation

