Undertaking 175

Undertake to provide any documentation related to when Hydro was first aware, the CT would not be in operation by the end of 2014.

Risk of schedule slippage was first noted in late October 2014. Undertaking 175 Attachment 1 is the November 5, 2014 Bi-Weekly Status Briefing to the Board where the schedule concerns were outlined.

Supply and Installation of a 100 MW Combustion Turbine Generator

Status Update Briefing– Nov 7, 2014

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(Includes only material updated since Oct 24, 2014)

Project Dashboard

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

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Progress & Schedule Summary

1. Civil work is near completion.
2. Transmission line construction is complete except for the final interconnection to the GSU which is planned for November.
3. Installation of the GSU dead end structure is planned for November.
4. Terminal Station tie-in work and energization is complete.
5. CTG unit assembly slower than planned due to recent inclement weather, delaying final alignment work.

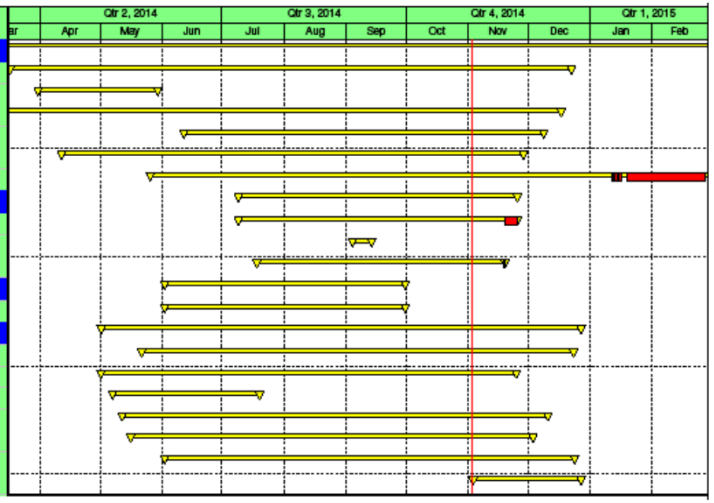
Progress & Schedule Summary (cont'd)

6. Mechanical BOP placement now at risk of slippage, awaiting late piping spool installation, has knock on effect on electrical.
7. Electrical work late starting, now requires double shifting/extended work hours to completion.
8. Cost S-Curve reflects tracking in compliance with original plan, EPC contractor is achieving better than planned labour efficiency.
9. Overall schedule is now reflecting slippage on several work fronts, but function testing and initial commissioning of CTG unit still planned for the month of December 2014.

Level 2 – Summary Schedule

- Summary level schedule provided below.

#	Activity ID	Activity Name	Remaining Duration	Start	Finish
1		100 MW Combustion Turbine (Integrated)	193.5	03-Mar-14 A	15-May-15
2		Milestones - Key Dates	11.0	17-Mar-14 A	22-Dec-14
3		EPC Contract Preparation	0.0	31-Mar-14 A	30-May-14 A
4		Enabling Works	30.0	03-Mar-14 A	17-Dec-14
5		System Operations Interfaces	23.0	12-Jun-14 A	08-Dec-14
6		Terminal Station	17.0	11-Apr-14 A	28-Nov-14
7		Combustion Turbine Interface	133.5	26-May-14 A	15-May-15
8		Transmission & Distribution	6.0	09-Jul-14 A	25-Nov-14
9		General & Milestones	4.1	09-Jul-14 A	25-Nov-14
10		Materials	0.0	04-Sep-14 A	13-Sep-14 A
11		Installation Work	1.9	18-Jul-14 A	19-Nov-14
12		Water Supply and Effluent Piping Works	0.0	02-Jun-14 A	30-Sep-14 A
13		Water Supply/Effluent	0.0	02-Jun-14 A	30-Sep-14 A
14		NALCOR - Simple Cycle 1 x Westinghouse 501 D5A - B-1	50.0	01-May-14 A	27-Dec-14
15		Payment Milestones	63.5	21-May-14 A	23-Dec-14
16		Pre Project	15.2	01-May-14 A	25-Nov-14
17		Pre EPC	0.0	07-May-14 A	19-Jul-14 A
18		Engineering	25.0	12-May-14 A	10-Dec-14
19		Procurement	27.9	16-May-14 A	03-Dec-14
20		Construction	46.4	02-Jun-14 A	24-Dec-14
21		Comissioning and Start Up	50.0	09-Nov-14	27-Dec-14



- 'Combustion turbine interface' task adjusted as the redundant black start line is not required and can not be connected until the temporary black start diesels are removed from service, which is being planned for 2015.

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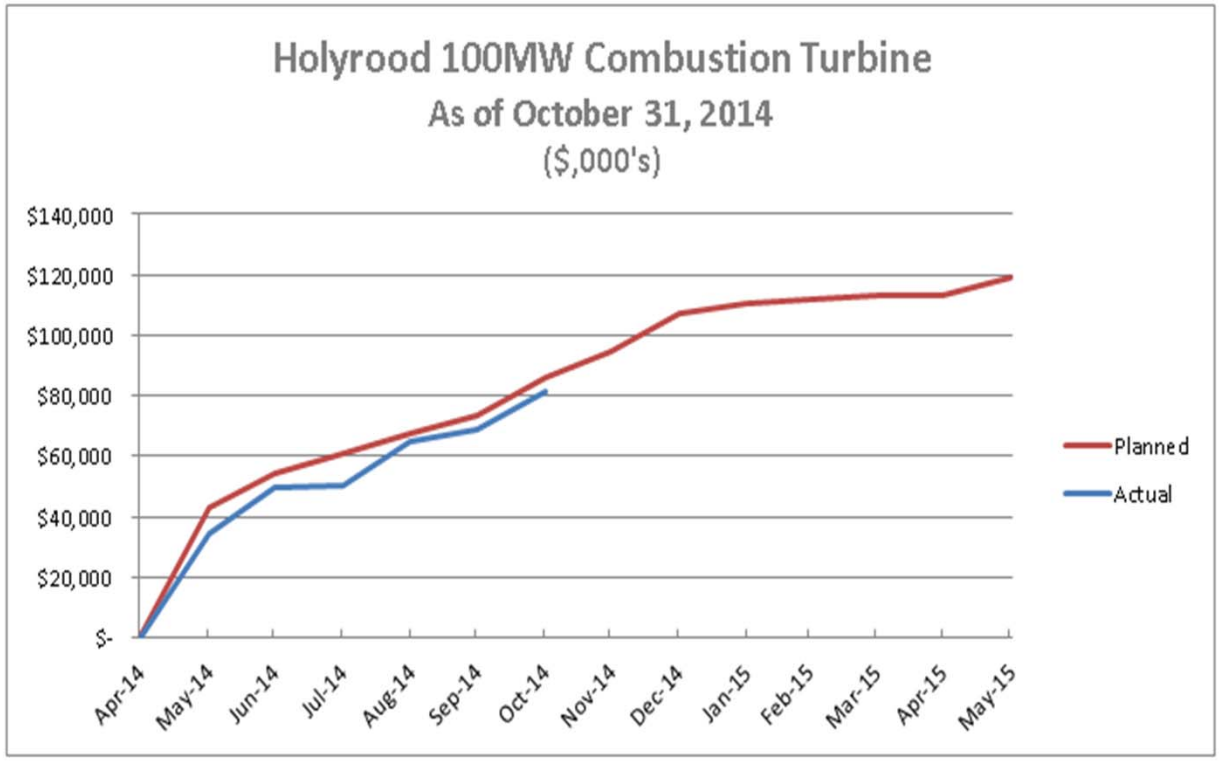
Cost Summary – S-Curve



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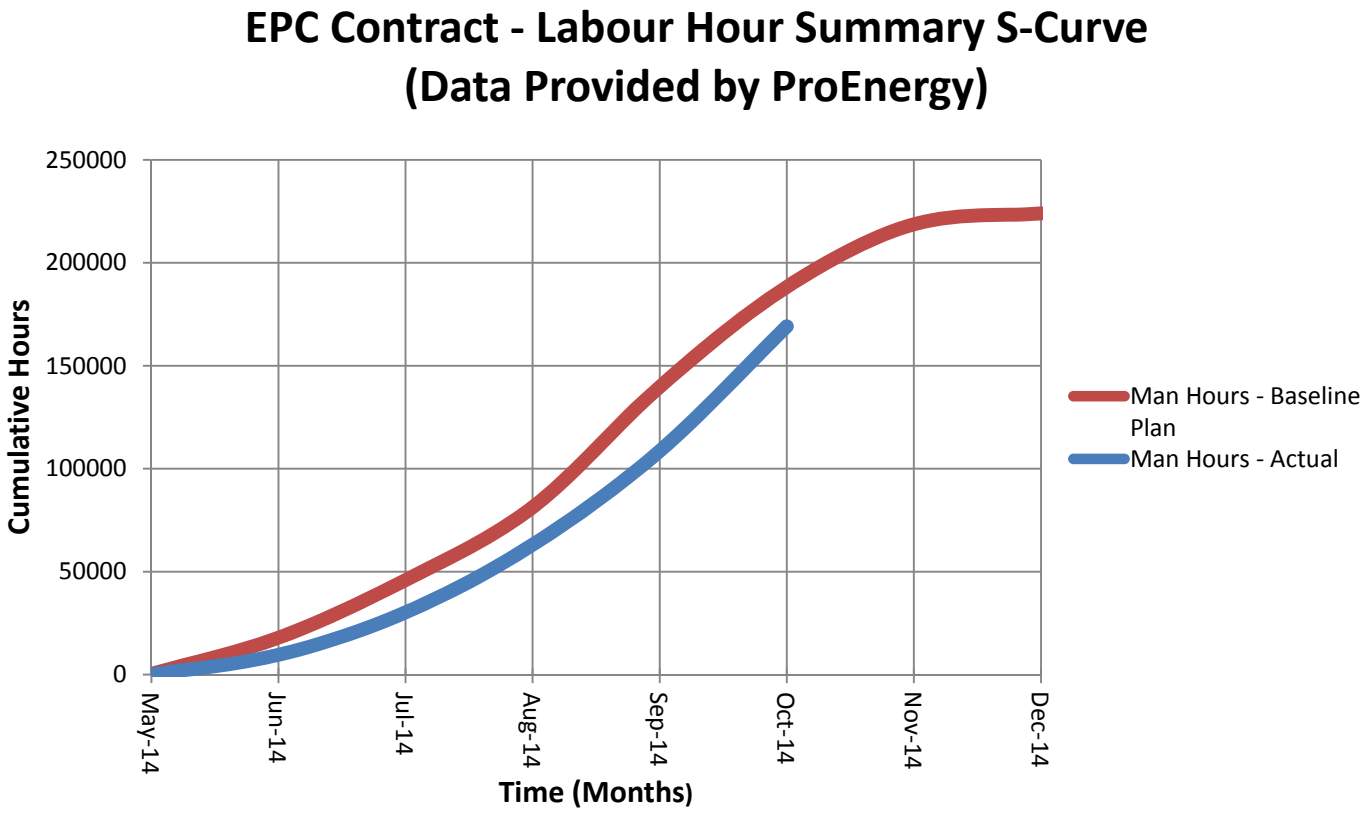
EPC Labour Hour Summary



Notes:
Planned hours to October (Baseline Plan): 84.07%
Actual Progress to October from Schedule: 76.46 %
Actual hours expended to Date: 68.88%
Schedule Performance Index = 0.89 **- Indicates tracking in accordance with plan**
Cost/Hrs Performance Index = 1.06 **- Indicates better than planned efficiency**

Risk Analysis

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

Risk Register was produced during the workshop. 50+ risks identified.

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

Key Risks & Mitigation (cont'd)

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.

(Nov 6 update – No issues to report this period – Several outages taken to work safely)

Key Risks & Mitigation (cont'd)

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.

(Nov 6 update – Operations discussing training and O&M support with ProEnergy)

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Key Risks & Mitigation (cont'd)

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.

(Nov 6 update – Continue to have coordination meetings with relevant parties)

Key Risks & Mitigation (cont'd)

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, increase shifts as required to pick up any delays. Mitigation action ongoing requires day by day measurement and management.

Key Risks & Mitigation (cont'd)

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; identify work around contingency plans.

Late materials delivery continues to be an exposure. We continue to expedite shipments daily. Late deliveries on electrical equipment and materials has now pushed function testing and commissioning later into December.

Key Risks & Mitigation (cont'd)

Risk: Adverse weather conditions could negatively impact construction progress.

Mitigation: Use of temporary enclosures to protect equipment and enable work to proceed during adverse weather conditions.

(Nov 6 – Contractor late in implementing this mitigating action. Erection of temporary enclosures still in progress, to enable working in adverse weather conditions.)

Project Photos

Photo 1 – Demin Water Treatment Skids

Photo 2 – Fuel Line & Cable Tray

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Photo 3 – Fuel Oil Pumphouse

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Photo 4 – GSU Take Off Structure Foundations

Photo 5 – Fuel Tank Construction

Photo 6 – Generator Cooler Installation

Photo 7 – Compressed Air System

Photo 8 – Black Start Diesel

Photo 9 – Black Start Gas Turbine

Photo 10 – Oil Water Separator Pad