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January 30, 2015

Board of Commissioners of Public Utilities Prince Charles Building 120 Torbay Road, P.O. Box 21040 St. John's, NL A1A 5B2

ATTENTION:

Ms. Cheryl Blundon

Director of Corporate Services & Board Secretary

Dear Ms. Blundon:

Re:

Newfoundland and Labrador Hydro Combined Applications - Installation of Diesel Units at Holyrood for the Purposes of Black Starting the Generating Units and Supply, and Install 100 MW (Nominal) of Combustion Turbine Generation - Request for Update

Further to the Board's letter of August 1, 2014 regarding the above referenced matter, enclosed is the original plus 12 copies of Hydro's status update for the following project:

• Supply and Installation of a 100 MW Combustion Turbine Generator.

We trust you will find the enclosed update to be in order.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

NEWFOUNDLAND AND LABRADOR HYDRO

GPY/jc

cc:

Gerard Hayes – Newfoundland Power Paul Coxworthy – Stewart McKelvey Stirling Scales Fred Winsor – Sierra Club Canada Thomas Johnson – Consumer Advocate Thomas O'Reilly, QC – Cox & Palmer Danny Dumaresque

Supply and Installation of a 100 MW Combustion Turbine Generator

Status Update Briefing-Jan 30, 2015





Contents

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

(Includes only material updated since Jan 14, 2015)



Project Dashboard

The project is progressing according to plan and in compliance with Safety, Quality, and Cost. Commissioning and function testing continues. During commissioning unit remains available for dispatch for incremental power generation if

required.





Progress Summary

- Generator synchronization to the power grid was completed on Jan 21 with a successful initial run to 40MW.
- 2. Steady progress made with multiple commissioning runs of the unit in steps at 40, 60, 80, 100MW.
- 3. All commissioning test runs were coordinated with the Energy Control Centre so that the island electrical system could be configured to prevent power interruptions to customers should there be a trip of the unit. No customer supply impacts on any of the test runs to date.



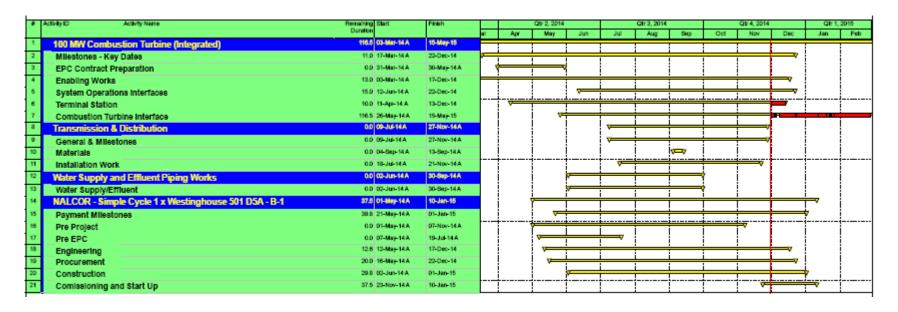
Progress Summary (cont'd)

- 4. Commissioning of the demineralized water system nearing completion. Expect to run the unit with water injection next week.
- Work continues on the structural steel for the 2nd phase of the building.
- General housekeeping and demobilization of construction trailers ongoing around the site.
- 7. On-the-job operator training ongoing.
- 8. Cost S-Curve reflects tracking in compliance with original plan. Refer to Level 2 Summary Schedule on the following page.



Level 2 – Summary Schedule

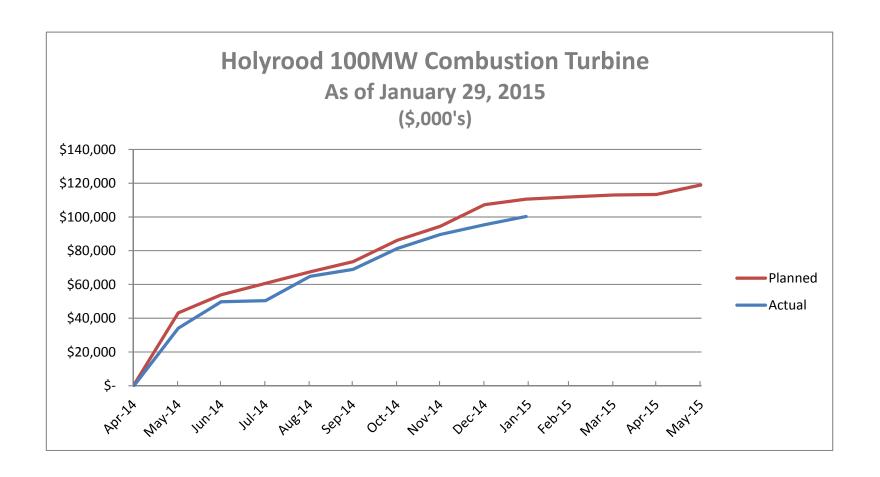
Summary level schedule provided below.



Schedule dashboard remains yellow, as commissioning and function testing continues on some systems. However, during commissioning unit remains available for dispatch for incremental power generation if required.

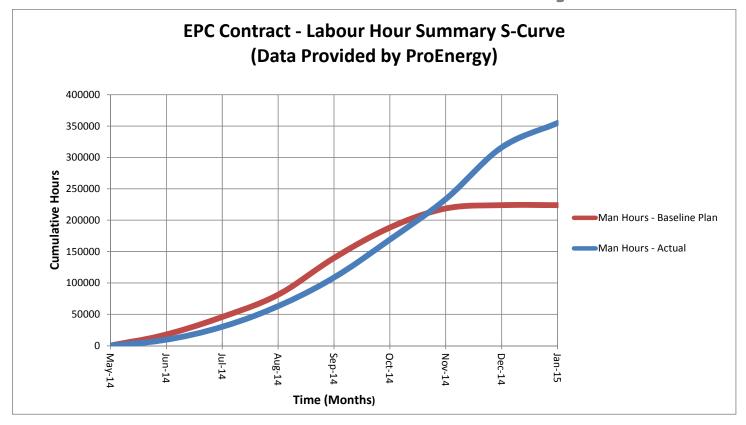


Cost Summary – S-Curve





EPC Labour Hour Summary



Notes:

Actual Progress to Jan 29 from Schedule: 97.58 %

Total Hours to Date: 354,823 with 1 LTI



Risk Analysis

Two 3rd party facilitated risk workshops have been held to date:

June 26th – Focus on construction risks

Dec. 19th – Focus on energization risks

The resulting risk mitigation plans are 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, deenergize lines where possible.

(Jan 30 update – Any work near overhead lines being performed with spotters and is always subject at toolbox talks)



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.

(Jan 30 update – Startup and Commissioning teams engaged and Plant Operator assigned for project and training continues)



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.

(Jan 30 update – Continue to have daily coordination meetings with relevant parties, and specific safety meetings where required)



Risk: During the start-up routine, the unit trips which results in customer impact.

Mitigation: System configuration setup to minimize impacts should there be a trip. Corporate Communications engaged and coordination underway with Newfoundland Power on customer updates.

(Jan 30 update – this item identified in Dec. 19 risk workshop)



Risk: Lack of isolation plan or incomplete lock-outs leads to safety risk.

Mitigation: Isolation procedures are defined and a walk down completed prior to work activity. Boundary isolation approach used. Site stand-down planned prior to energization.

(Jan 30 Update – Continuous management of Lock Out Tag Out (LOTO) system for any ongoing work)



Project Photos



Photo 1 – Insulation on Turbine

Piping





Photo 2 – Inline Fuel Heater





Photo 3 – PLC Screen Shots from Commissioning Runs





Photo 4 – General Site Photo





Photo 5 – Air Compressor System





Photo 6 – Inside Turbine Enclosure







