February 13, 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

Tracey L. Pennell
Legal Counsel

TLP/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– Feb 13, 2015

Boundless Energy

newfoundland labrador hydro
a nalcor energy company
Contents

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

(Includes only material updated since Jan 30, 2015)
Project Dashboard

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

1. Steady progress made with multiple commissioning runs of the unit above 100MW and successful operation of the water injection emissions control system.

2. 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)

3. Work continues on the structural steel for the 2nd phase of the building.

4. Work continues on completion of the 2nd fuel storage tank.

5. General housekeeping and demobilization of construction trailers ongoing around the site.

6. On-the-job operator training ongoing.

7. 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.

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Schedule dashboard is shown yellow/red, 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

Holyrood 100MW Combustion Turbine
As of January 31, 2015
($,000's)
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.
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.

(Feb 13 update – Any work near overhead lines being performed with spotters and is always subject at toolbox talks. Outages on lines taken when required)
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.

(Feb 13 update – Startup and Commissioning teams engaged and Plant Operator assigned for project and training continues)
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.

(Feb 13 update – Continue to have daily coordination meetings with relevant parties, and specific safety meetings where required)
Key Risks & Mitigation (cont’d)

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.

(Feb 13 update – All runs of the unit are coordinated with ECC and system setup to minimize customer impacts for each run)
Key Risks & Mitigation (cont’d)

**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.

*(Feb 13 Update – Continuous management of Lock Out Tag Out (LOTO) system for any ongoing work)*
Project Photos
Photo 1 – General Site Photo
Photo 2 – Carbon Filter Water Treatment System
Photo 3 – Reverse Osmosis Water Treatment System
Photo 4 – PLC Screen Shot from Commissioning Run