

HAND DELIVERED

September 15, 2015

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

Attention: G. Cheryl Blundon
Director of Corporate Services
and Board Secretary

Ladies and Gentlemen:

**Re: An Application by Newfoundland and Labrador Hydro pursuant to Subsection 41
(3) of the Act for the approval of the Hardwoods Gas Turbine Refurbishment**

Please find enclosed the original and 12 copies of Newfoundland Power's Requests for Information NP-NLH-1 to NP-NLH-15 in relation to the above noted Application.

For convenience, the Requests for Information are provided on three-hole punched paper.

A copy of this letter, together with enclosures, has been forwarded directly to the parties listed below.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours very truly,



Gerard Hayes
Senior Counsel

Enclosures

c. Geoffrey Young
Newfoundland and Labrador Hydro

Thomas Johnson
O'Dea Earle Law Offices

IN THE MATTER OF the *Electric Power Control Act*, RSNL 1994, Chapter E-5.1 (the *EPCA*) and the *Public Utilities Act*, RSNL 1990, Chapter P-47 (the "*Act*"), and regulations thereunder;

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro (Hydro) pursuant to Subsection 41 (3) of the Act; for approval of the Hardwoods Gas Turbine Engine Refurbishment

**Requests for Information by
Newfoundland Power Inc.**

NP-NLH-1 to NP-NLH-15

September 15th, 2015

Requests for Information

- NP-NLH-001 On March 1, 2015, a fire occurred in engine module B of the Hardwoods gas turbine. The application for the approval of the Hardwoods Gas Turbine Engine Refurbishment was filed on September 3, 2015. Why has it taken Hydro approximately 6 months to file this application?
- NP-NLH-002 On page 3 of the August 2015 report, it states that Hydro's gas turbine plants are operated in generation mode in peak and emergency periods to produce electric power for the Island Interconnected System. Does Hydro use the generation from its gas turbine plants for purposes other than peak and emergency situations?
- NP-NLH-003 The project schedule provided on page 13 of the August 2015 report identifies November 2015 as a proposed date for the return of the refurbished engine to service. What implications does the November return to service date have on Hydro's winter readiness planning for the upcoming winter season?
- NP-NLH-004 The initial investigation concluded that the only damage to engine S/N 202224 was the visible external damage to the engine caused by the heat from the fire. Later, a borescope inspection revealed that damage had occurred to the combustion section internal to the engine, with combustion chambers 5, 6, and 8 showing catastrophic damage. Can Hydro explain how internal damage to the combustion chambers occurred as a result of a fire external to the engine?
- NP-NLH-005 Please provide a copy of the borescope inspection report completed by the Alba Power representative.
- NP-NLH-006 Has Hydro issued a public tender for the refurbishment of engine S/N 202224? If not, when is the public tender expected to be issued?
- NP-NLH-007 The fire event on March 1, 2015 was caused by the failure of a pressure relief line in the fuel system within the engine module. What was the cause of that failure, and has the pressure relief line been repaired?
- NP-NLH-008 A replacement engine has been installed in place of engine S/N 202224 while it is being refurbished, making Hardwoods available at reduced capacity. Where was the replacement engine sourced, and at what cost?
- NP-NLH-009 Are the costs associated with the replacement engine included in the \$1,249,300 capital cost estimate for this project?

- NP-NLH-010 Hydro estimated the budget for this project utilizing budgetary information obtained from a service provider in the gas turbine refurbishment industry. Who was the service provider that provided the information?
- NP-NLH-011 Engine S/N 202224 was last refurbished in 2011. Table 2 on page 9 of the August 2015 report provides operating data for the Hardwoods Gas Turbine facility, including both engines. Please provide a similar table for engine S/N 202224 only from the time it was last refurbished in 2011.
- NP-NLH-012 Following the 2011 refurbishment, did Hydro expect to get more than approximately 4 years of service from the overhauled engine before catastrophic failure of the combustion chambers?
- NP-NLH-013 What was the reason for the 2011 overhaul of the engine, and was the condition of the combustion chambers addressed as part of that overhaul?
- NP-NLH-014 The five-year maintenance cost history for Hardwoods gas turbine is shown in Table 4 on page 11 of the August 2015 report. The costs associated with corrective maintenance are significantly more than the cost associated with preventive maintenance. Could the failure of the combustion chambers in engine S/N 202224 have been avoided if additional preventive maintenance had been completed over the five-year period?
- NP-NLH-015 Could the failure of the pressure relief line in the fuel system have been avoided if additional preventive maintenance had been completed over the five-year period?

RESPECTFULLY SUBMITTED at St. John's, Newfoundland and Labrador, this 15th day of September, 2015.



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