Q. If the response to Request for Information NP-NLH-1 includes the addition of generation capacity on the island before the commissioning of the transmission link to Labrador, will the gas turbine capacity at Hardwoods still be necessary to satisfy Hydro's generation planning criteria once the additional capacity is added?

A. Yes, the gas turbine capacity at Hardwoods will still be necessary to satisfy Hydro's generation planning criteria, once the additional capacity is added, until the transmission link to Labrador comes in-service.

From an overall system planning perspective, continued generation is required from the Hardwoods Gas Turbine in order for Hydro to ensure it continues to meet the required system reliability criteria of 2.80 Loss of Load Hours (LOLH) per year. (LOLH is a statistical assessment of the risk that the system will not be capable of serving the system's firm load for all hours of the year. For Hydro, an LOLH expectation target of not more than 2.8 hours per year represents the inability to serve all firm load for no more than 2.8 hours in a given year).

Table 1 demonstrates the anticipated increase in LOLH through 2020 should Hardwoods be removed from service in 2013. In the base case scenario, the LOLH is violated (LOLH > 2.80) in 2015, whereas in the Loss of Hardwoods case, the criterion is violated from 2014 through 2017. The construction of a new combustion turbine in 2015 is common to both cases. In the base case, this returns the system reliability to acceptable levels by 2016. However, in the Loss of Hardwoods case, it causes a reduction in LOLH, but the system continues to violate the reliability criteria, until the transmission link to Labrador comes in-service.

1 **Table 1: LOLH Analysis**

Loss of Load Hours	2012	2013	2014	2015	2016	2017	2018	2019	2020
Base Case	0.41	0.97	2.59	**3.98**	2.73	2.68	0.15	0.16	0.16
With loss of Hardwoods (end of 2013)	0.41	0.97	**5.39**	**8.05**	**5.71**	**5.41**	0.15	0.16	0.16