Q. What is the maximum wind capacity sustainable on the Island under both options (Muskrat Falls LIL HVDC and the Isolated Island)?

A. The 2004 NL Hydro study " An Assessment of Limitations For Non- Dispatchable Generation On the Newfoundland Island System " (Exhibit 61) established two limits regarding the possible level of wind generation integration on the Isolated Island system, an economic limit and a maximum technical limit. The study determined that for wind generation in excess of 80 MW there would be a significant increase in the risk of spill at the hydroelectric reservoirs particularly during the spring run off diminishing the economic advantage of additional wind generation. The study further determined that for wind generation above 130 MW it would not always be possible to maintain system stability particularly during periods of light load and during these periods wind generation would have to be curtailed.

The limits identified in the 2004 study are still applicable today. However, as load grows, the Isolated Island system should be able to accommodate additional wind generation. It has been suggested that the system should be able to accommodate an additional 100 MW of wind in the 2025 timeframe and a further 100 MW around 2035. Nalcor has not studied this in detail but will undertake studies prior to DG3.

Nalcor has not completed an analysis to establish the level of wind generation that could be sustained in the Muskrat Falls LIL HVDC option. However, given that this option will include at least one interconnection to the North American electrical grid and that there will be considerable hydroelectric capacity both in Labrador and on the Island to provide backup it would not be unreasonable to consider an

additional 400 MW of wind generation on the Island. Nalcor will be analysing this as part of the analysis that will be completed prior to DG3.