Q. Further to the response to PUB-NLH-468, please explain the potential reduction in power delivery capability when operating in monopolar operation with a single electrode conductor in Labrador during high load periods on the Interconnected Island System. In the response include the amount of load shedding that would be required during worst case conditions.

A. Periods of high load on the Island Interconnected System will occur during the winter months when the ambient temperatures are at their lowest and residential heating requirements are at their greatest. With respect to Hydro's response to PUB-NLH-468 Table 2, the Labrador-Island HVdc Link (LIL) has a calculated continuous power delivery of 416.3 MW at Soldiers Pond for an ambient temperature of 0 °C with one electrode conductor in service between Muskrat Falls and L'Anse au Diable.

As noted in Hydro's response to PUB-NLH-217, the LIL deliveries between Emera and Hydro will be shared on a pro rata basis during continuous monopolar mode of operation. To this end the Nova Scotia block is 78.3 MW and the Island (Hydro) portion is 338 MW. Recall from PUB-NLH-217 the Island entitlement under normal bipole mode of operation equals a maximum of 673 MW under maximum (900 MW) LIL loading. With the LIL entering monopolar mode, Hydro would initiate start of all standby generation having a total capacity of 276.2 MW. The combined capacity for standby generation and available capacity from LIL in monopolar mode with one electrode conductor out of service in Labrador equals 614.2 MW (338 MW + 276.2 MW). Consequently, load shed due to the LIL operating in monopolar mode with one electrode conductor in service in Labrador could equal 58.8 MW (673 MW – 614.2 MW).