Q. Please explain in detail the impact of outages and trips of the Maritime Link on the security of the power supply on the Island Interconnected System.

A. Outages and trips on the Maritime Link (ML) with exports up to the 500 MW capacity of the link will not have an impact on the security of the power supply to customers on the Island Interconnected System. In the event of a pole or bipole trip or power order runback (rapid reduction in delivered power) of the ML Voltage Source Converter (VSC) due to system protection action, the Labrador-Island Link (LIL) Line Commutated Converter (LCC) will ramp back its power order (delivered power to the Island) via a frequency controller to maintain frequency on the Island. The ML converter system will utilize VSC technology allowing the Bottom Brook converter station to maintain voltage control of the transmission system west of Bay d'Espoir much like a Static VAR Compensator (SVC) in the event of the loss of the dc circuit to Nova Scotia with the Bottom Brook converter in service. The loss of up to 500 MW of export power through the western portion of the Island Interconnected System due to a trip of the ML converter at Bottom Brook will result in increased voltages in this area. The integration analysis completed for the ML demonstrates acceptable performance for this event. A copy of the analysis is attached to Hydro's response to PUB-NLH-264.