Q. **Reference: *Engineering Support Services for: Stage 4D LIL Bipole: Transition to High Power Operation*, TransGrid Solutions, April 7, 2020, Section 3.2.3.**

If tuning the power systems stabilizers does not eliminate the eletromechanical oscillations, what will be the implication of restricting the pre-contingency power flow on supply requirements on the Avalon if customer impacts are to be avoided after decommissioning of production from the Holyrood Thermal Generating Station and the Hardwoods Gas Turbine?

A. It must be noted that eletromechanical oscillations will very likely be mitigated by the tuning and activation of the power systems stabilizers. Power system stabilizers are designed for the specific purpose of damping eletromechanical oscillations and settings applied will be tuned to dampen the specific modes present in the Island Interconnected System.

In the unlikely event that tuning the power systems stabilizers does not eliminate the eletromechanical oscillations, consideration would be given to reliability implications for scenarios when the Labrador-Island Link ("LIL") bipole is in service and also when the LIL bipole is out of service.

When the LIL bipole is in service, the risk of oscillation and instability resulting from a trip of a 230 kV line or the LIL bipole would be mitigated through the management of power flow on the 230 kV network. Specified limits would be maintained through the dispatch of the LIL in consideration of generation and load within the Island Interconnected System. Existing generation on the Avalon Peninsula, including the Holyrood Gas Turbine would be dispatched, as required. 230 kV power flow limits will be defined in Operating Procedure TOP-P-076 - NL Transmission System Operating Limits

During a LIL bipole outage, increased power flows within the 230 kV network cannot be avoided. The acceptability of the risk of oscillation and instability resulting from a trip of a 230 kV line during such conditions would therefore be assessed as a consideration for Emergency Planning Criteria and dependent on the outcomes of Hydro's Reliability and Resource Adequacy Study.