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

What will be the implications of restricting the pre-contingency power flow on supply requirements on the Avalon if customer impacts are to be avoided prior to the decommissioning of production from Holyrood Thermal Generating Station and the Hardwoods Gas Turbine?

A. As per the results presented in Section 3.2.3 of the Stage 4D study report, power flow to the Avalon Peninsula is restricted as a result of electromechanical oscillations. Similar restrictions exist in the existing system as power system stabilizers are not active and there is a risk of oscillation for ac transmission line contingencies when power flows are in the order of those presented in the study report (i.e. in excess of 500 MW).

There would not be a customer impact as a result of this restriction prior to the decommissioning of production from Holyrood Thermal Generating Station and the Hardwoods Gas Turbine. As is the case with the existing transmission system, generation on the Avalon Peninsula serves to offload the 230 kV network and power flows are therefore maintained below acceptable limits. As per Newfoundland and Labrador Hydro's response to PUB-NLH-171, the activation and tuning of power system stabilizers is planned to be completed in advance of the retirement of these assets.