Q. **Reference: Reliability and Resource Adequacy Study – 2022 Update, Volume III: Long Term Resource Plan, October 3, 2022, page 38, lines 17 to 22.**

> Based on the information provided herein and with the extended availability of generation from the Holyrood TGS and the Hardwoods Gas Turbine on the Avalon Peninsula, there is no appreciable reliability benefit of reinforcing of the AC transmission system at this time. As Hydro continues to work with stakeholders and advance long-term expansion plans, further analysis may be performed to assess if transmission system reinforcement is required to ensure that capacity from new sources of supply can be reliably delivered to customers in the event of a LIL bipole outage.

How much additional generation could be added to the Island Interconnected System west of the Avalon Peninsula before reinforcing of the AC transmission system is required?

A. In the event of an extended Labrador Island Link ("LIL") bipole outage scenario, more power must be delivered from Bay d'Espoir to Soldiers Pond through the ac transmission system. The power transfer capability of the BDE/SOP[1] corridor with the LIL bipole unavailable is 750 MW,[2] as per Newfoundland and Labrador Hydro's ("Hydro") Emergency Planning Criteria.[3] The power flow on the BDE/SOP corridor is a function of electrical demand and dispatchable generation downstream (to the east) of Bay d'Espoir. Therefore, the extended availability of generation from the Holyrood Thermal Generating Station and the Hardwoods Gas Turbine will help avoid exceeding this limit in the near term.

Requirements to reinforce the BDE/SOP ac transmission system will be assessed in consideration of cost, reliability impacts, and the location of any future generation. Hydro will be performing further power system studies to determine the power transfer limits of all transmission lines

[1] Bay d'Espoir/Soldiers Pond ("BDE/SOP").
[2] The TL201/TL217 transmission corridor between the Western Avalon Terminal Station and Soldiers Pond could be more restrictive depending on the location of any new generation. Hydro is currently assessing potential low-cost options to increase the thermal ratings of TL201/TL217.
[3] Please refer to Hydro's response to PUB-NLH-246 of this proceeding for further details.

from Bay d'Espoir to Soldiers Pond for various generation expansion scenarios and define the reinforcements for different levels of reliability during an extended LIL bipole outage.