Q. **Reference: Reliability and Resource Adequacy Study 2022 Update, Volume III, page 19, lines 5-9.**

Describe and detail Hydro's reasons for not accepting the Haldar & Associates line length and regional correlation analysis.

A. The design of high voltage transmission lines in Canada is to follow national guidelines and principles outlined by the Canadian Standards Association, specifically CSA 22.3 No. 60826-10.[1] The standards are widely used and adopted by the utility industry to reflect best utility practices, particularly in the fields of health, safety, building, construction, and the environment.

The concept of regional correlation over line length with respect to reliability as presented by Haldar & Associates Inc. is outside of the standard, as it does not account for the impact due to line length. Furthermore, the concept has not been widely validated or utilized within the utility industry to date and has not been used by Newfoundland and Labrador Hydro in the past for any of the existing critical lines that serve its customers today. As such, adopting this design criterion for the line would dictate that the reliability of the Labrador-Island Link ("LIL") would be materially lower under climatological conditions than previously contemplated, resulting in cost increases associated with improving overall reliability, such as alternative generation. If this concept had been incorporated during the design phase of the project, it would have resulted in an exponential increase in applied reliability factors contributing to a more robust and costly system. The outcome would result in a more costly system that has not been substantiated through best utility practice, past experience, or governing standards. In the absence of such direct substantiated information regarding this concept, Hydro has chosen to consider the impacts of a significant failure of the LIL, independent of the frequency of such an event occurring, as part of the extended LIL outage analysis.

[1] Canadian Standards Association. (2010). CSA 22.3 No. 60826-10, *Design Criteria of Overhead Transmission Lines* is a national standard that specifies the loading and strength requirements of overhead lines derived from reliability-based design principles.