Q. **Reference: Assessment of Labrador Island Transmission Link (LIL) Reliability in Consideration of Climatological Loads, March 10, 2021 (Haldar Report) by Dr. Asim Haldar, Ph.D., P. Eng.**

Further to PUB-NLH-198, is Dr. Haldar aware of any utilities or organizations that have considered full line length in the design of, or assessment of, reliability of a transmission line?

A. *The following response has been provided by Haldar and Associates.*

Not explicitly; however, a very long line length is normally attributed to HVdc line. Since HVdc lines carry bulk power (often large quantity) and loss of a HVdc line may significantly impact the power system, the return period for design load is often selected at a much higher level compared to a typical HVac line in the system. The objective is to reduce the expected annual failure rate per 100 km of a HVdc line compared to a typical HVac line in the system. In our opinion, the impact of line length on reliability of a HVdc line, at present is considered implicitly not explicitly. See our response in PUB-NLH-198. However, it is quite common to consider line length in the design and protection of lightning system.

Newfoundland and Labrador Hydro provides the following additional information.

Based on the investigation completed by Haldar and Associates to date, it is Newfoundland and Labrador Hydro's understanding that it is not common practice within the utility industry to give explicit consideration to line length as a parameter in the design of transmission lines.