Q. **Reference: Teshmont Report - Section 5 – HVDC Reliability Data (Part 5.2)**

Data Provided by Nalcor Energy (pg 21):

5.2.1.2. HVDC Overhead Lines

"Based on the Nalcor study the following are the expected failure rates and repair times for the HVDC overhead lines.

Average failure rate per pole (based on 1100km length): 2.101/year

Average repair time: 1.78 hours

Average common mode failure rate: 0.02/year/100km

Average common mode repair time: 24 hours"

5.2.1.4. Electrode Lines

"In addition, and in agreement with what was stated in the study, the above analysis would be considered only if the electrode lines will be constructed on a separate wood-pole line. As the electrode lines will be installed on the main dc line towers, the reliability of the electrode lines is expected to be included in the common mode failure of the dc line. Given that the electrode line in Labrador will be constructed on the main dc line towers for much of its length, it is not anticipated that the LIL's relatively long electrode line will impact or have a major influence on LIL overall reliability."

Reference: ***NP-NLH-038, page 2, paragraph (f) states:***

"Anti-cascade requirements dictated that a maximum of 20 suspension 10 structures would be permitted between full-tension deadends."

Please explain the relationship between these data points.

A. The overhead line failures rates from Section 5 of the Teshmont report are addressed in Hydro's response to NP-NLH-133.

The reference to Section 5.2.1.4. of the Teshmont report relates to the fact that as the electrode lines shall be installed on the HVdc structures, the electrode failure rate was considered to be included in the common mode failure rate of the line. This is in contrast to a scenario where the electrode is installed on separate structures.

It is noted that the reference to Hydro's response to NP-NLH-038, page 2, paragraph (f), relates to Hydro's design standard with respect to the Labrador Island Link. Other than to ensure the structural integrity of the structures, this reference does not relate to electrode reliability.