Q. **Reference: *Structural Capacity Assessment of the Labrador Island Transmission Link (LITL)*, EFLA, April 28, 2020, pages 5-6.**

"The OPGW conductor has utilization exceedance up to 9% in the load case "Ice and Wind" in zones 3b, 4a, 4b, 6 and 10. The maximum utilization in the study was set at the damage limit of 80% of RTS. The increased utilization may lead to permanent elongation of the OPGW, however it is within the failure limit and should not break or result in a line outage. It may therefore be possible to accept a higher utilization value in few spans provided it is well below the failure limit. The strength capacity corresponds to approximately 90 years return period of loading."

Did EFLA calculate ice loading for the OPGW in accordance with Section 6.3.2 – Ice Data of CSA Standard *CAN/CSA C22.3 No. 60826-10* which recommends to use the same linear unit weight of ice as for the LIL phase conductors? If not, why not?

A. The study used radial ice as applied in the design of the Labrador-Island Link and complies with the requirements of the CSA standard. For the purpose of the study, it was specified in the project that underlying assumptions used in the design should be kept as far as they complied with the design standard. The general approach in the CSA standard is to assume radial ice for glaze icing as was done in the study.

The CSA standard states in Clause 6.3.2 Deviations:

> The experience of some Canadian utilities is that in some locations the ground wire (GW) accretes as much radial ice weight as the larger-diameter conductors. This is partly due to the higher elevation of the GW, the higher temperature of the phase conductor, and possibly the comparative torsional stiffness. In such locations, it is recommended to design the GW for the same linear unit weight of ice as for the phase conductor.

The CSA standard (Clause 6.3.2 Deviations) is a recommendation for "some locations" and is not mandatory. The standard also provides no specifics on "such locations" or means to identify them.