

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

3 *“The OPGW conductor has utilization exceedance up to 9% in the load case “Ice and Wind” in*
4 *zones 3b, 4a, 4b, 6 and 10. The maximum utilization in the study was set at the damage limit of*
5 *80% of RTS. The increased utilization may lead to permanent elongation of the OPGW, however*
6 *it is within the failure limit and should not break or result in a line outage. It may therefore be*
7 *possible to accept a higher utilization value in few spans provided it is well below the failure*
8 *limit. The strength capacity corresponds to approximately 90 years return period of loading.”*

9 In EFLA’s view, how should the limitations highlighted regarding the OPGW be considered in
10 determining the overall reliability level of the LIL? In the response please explain how the
11 overall reliability of the LIL may be limited by the reliability of the OPGW.

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14 A. The function of the optical ground wire (“OPGW”) is to provide telecommunications between
15 the stations to assist with operation of the line. There are two alternative backup systems for
16 communication:

- 17 • Radio frequency signals; and
- 18 • Telephones.

19 Therefore, a failure of the OPGW alone will not result in a line outage; an outage would require
20 further mechanical failure, bridging, or reduction of electrical clearances between the pole
21 conductor, OPGW, and tower.