

1 Q. **Newfoundland and Labrador Hydro - EFLA Consulting Engineers Report - *Structural Capacity***
2 ***Assessment of the Labrador Island Transmission Link, April 30, 2020 ("EFLA" Report)***

3 With respect to the April 30, 2020 EFLA report's Study Summary citation, page 5, that the "goal
4 was to use loading specified in the CSA without a special study of local conditions" and "it was
5 not part of this study to review or verify PLS-CADD and PLS-Tower models made by the
6 designers," please identify all the unstudied local conditions that the CSA considers appropriate
7 for consideration in the design of facilities like the LIL.

8

9

10 A. Newfoundland and Labrador Hydro ("Hydro") would not characterize conditions not included as
11 "unstudied local conditions." Rather, it should be understood conditions exist that may be
12 difficult to quantify within a reasonable study.

13 The main local condition that was not included in the study is "Amplification of wind due to
14 topography." The CSA states in paragraph 6.2.1: "the effects of acceleration due to funneling
15 between hills or due to sloping grounds are not covered and may require specific studies to
16 assess such influences." No guidelines are presented in the CSA standard on how this can be
17 evaluated and quantified. It also does not clearly indicate the scale of the local effects, for
18 example, shall the effects include large scale effects such as the influence of large mountain
19 ridge (e.g. the Long-Range Mountain) with tens of km or are the effects to be small scale effects
20 within the impact of a single tower (500 m).

21 Wind speeds in the design of Labrador-Island Link were increased in zones 2a-2c, 5, 7a-7c and 9
22 to account for large scale and small scale topographical effects. This study used the wind map
23 from the CSA without including additional amplification of wind due to topography.