

1 Q. Reference: *Structural Capacity Assessment of the Labrador Island Transmission Link (LITL)*,
2 EFLA, April 28, 2020, page 26.

3 *“This study considers only load cases that influence the reliability of the LITL, i.e., load cases*
4 *related to wind, ice, and a combination of wind plus ice. All load cases related to security level*
5 *and safety level are ignored.”*

6 In EFLA’s view, is it appropriate to assess the reliability of a transmission line without
7 considering load cases related to security and safety? If not, please explain why EFLA did not
8 consider load cases related to security and safety in its report.

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11 A. The purpose of the study was to analyze the reliability requirements of the Labrador-Island
12 Link (“LIL”); therefore, only load cases related to reliability requirements were considered in
13 the study. The reliability of a transmission line has a concise definition in the CSA standard and
14 does not include security and safety requirements. Security requirements deal with preventing
15 cascade failures after a failure has occurred and therefore do not form part of the reliability
16 requirements. The LIL has been designed with tension towers at optimal locations, no more
17 than every 21 towers and in many cases at much shorter intervals, to provide anti-cascade
18 protection against this type of deterministic loading scenario. These towers were checked both
19 with the extreme unbalanced ice load case and with broken wire load cases. Tangent towers
20 were designed with consideration for a broken wire under everyday conditions and taking into
21 account dynamic impact factors. As a result of these considerations, more focus was placed on
22 reliability class loading for the purpose of the study. Safety loads were not considered to be
23 critical with respect to structural reliability and were therefore not addressed as part of the
24 study.