

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 page 23, statement about modifications to the
4 tower analyses made to the PLS-CADD and PLS-Tower models used for the original design,
5 please provide further description of the reasons for these modifications and the nature and
6 magnitude of their effects on study results, with respect to:

- 7 • Using the PLS-Cadd option “IEC 60824.2017F, rather than using “wind on face” as used in
8 the design.
- 9 • Reducing the stiffness of a few elements in seven suspension towers by a factor of 10.
- 10 • Improvements made to modeling the earth wire peak in tower 1219.

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13 A. The “IEC 60826:2017F” was not an available option in the program when the design was made.
14 The option allows the software to apply the appropriate loading in accordance with the CSA
15 standard in a simpler and more concise manner. Overall, the International Electrotechnical
16 Commission option was not used to increase or decrease the loading, but rather to allow the
17 software to calculate the loading without having to apply different adjustment factors to comply
18 with the CSA standard as is needed when the “Wind on Face” method is applied to the design.

19 Reducing the stiffness of some of the bracing elements is similar to removing the elements from
20 the analysis. Please refer to Newfoundland and Labrador Hydro’s (“Hydro”) response to
21 NP-NLH-014.

22 The magnitude of changes in the utilisation of tower 1219 was high (>20%) but the model
23 improvements were required to better represent the as-built tower. Please refer to Hydro’s
24 response to NP-NLH-014.