

1 Q. **Reference: Failure Investigation Report – L3501/2 Tower and Conductor Damage, Icing Event**  
2 **January 2021 in Labrador (January 2021 Icing Event Report), page 47.**

3 Hydro concluded that the ice load in the January storm exceeded the 50-year loading at most  
4 tower locations between 350-600. What level of confidence does Hydro have that the 50-year  
5 design loading accurately reflects the weather conditions that can be expected to be  
6 experienced in the areas where the damage occurred?

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9 A. Newfoundland and Labrador Hydro (“Hydro”) concluded that the ice load in the January storm  
10 exceeded the 50-year loading at most tower locations between structures 350-600. Please note  
11 that this is a comparison of the model of the January failure event icing and the newly calculated  
12 50-year return period icing that was based on recently completed Weather Research and  
13 Forecasting (“WRF”) and ice accretion models. As referenced, in the Failure Investigation  
14 Report,<sup>1</sup> the model of the January failure event icing (black dots) and the design load icing (black  
15 line) are provided.

16 As discussed in Hydro’s response to PUB-NLH-211, the best known information available at the  
17 time for that region was used for the selection of the design ice loading. The newly complete  
18 WRF and ice accretion models suggest that icing events with loads close to the design load are  
19 more frequent than originally expected. Hydro acknowledges the new data acquired through  
20 the WRF and ice accretion models is one set of information and further planned monitoring and  
21 operational experience is needed to confirm if this is accurate.

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<sup>1</sup> “Failure Investigation Report – L3501/2 Tower and Conductor Damage, Icing Event January 2021 in Labrador,” Nalcor Energy, May 28, 2021, fig. 24, p. 46.