

1 Q. Further to CA-NLH-064, has Hydro considered the likelihood of an emergency  
2 supply situation in Newfoundland and Labrador due to weather also affecting Nova  
3 Scotia and interrupting Nova Scotia's power system?  
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6 A. Hydro is unaware of any occurrence of such a weather event. Having examined a  
7 number of weather events occurring in the past 20 years that resulted in significant  
8 customer outages including, but not limited to, Hurricane Juan and a significant  
9 2004 winter storm ("White Juan") in Nova Scotia and Hurricane Igor in  
10 Newfoundland, it was confirmed that there was no coincident significant system  
11 outage in the neighbouring jurisdiction for the period considered.  
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13 As part of the Muskrat Falls Review, Dr. Kathleen Jones of the Cold Regions  
14 Research and Engineering Laboratory, United States Army Corps of Engineers,  
15 reviewed historic weather events in Newfoundland and Labrador as part of the  
16 paper submitted as Exhibit 96 of the Muskrat Falls Review<sup>1</sup>.  
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18 Her results, included in Appendix B of Exhibit 96 and attached as CA-NLH-090  
19 Attachment 1, did not indicate severe freezing rain events occurring beyond a  
20 regional basis at one time (i.e., the Avalon Peninsula or a portion of the Northern  
21 Peninsula) in Newfoundland and Labrador.

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<sup>1</sup> <http://www.pub.nl.ca/applications/MuskratFalls2011/files/exhibits/Exhibit96.pdf> .

## Appendix B. Storm maps

Each of the ice storms investigated for this project and confirmed to have been severe enough to damage power lines, trees, or communication towers, or result in notable ice accretions on power lines is mapped in this appendix. For each storm one map shows the modeled ice thicknesses from the CRREL and Simple models and the other map shows the region with damaging or notable ice loads. The format of the ice thicknesses, which are reported in millimeters, is:

CRREL model freezing rain only/Simple model freezing rain only

CRREL model freezing rain and ice pellets/Simple model freezing rain and ice pellets

So, if the model results are all different from each other there will be four numbers reported. For example, at St. Anthony in the 1/1 – 10/65 storm the model runs gave

6/15

10/19 .

Indicating more ice accreted by the Simple model than the CRREL model, and somewhat more ice accreted when ice pellets were treated as freezing rain. If the CRREL and Simple model results are essentially the same, only one number is reported in that row. So for the 2/7 – 12/62 event at Gander

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Because the storm footprint did not include Gander, the 10 mm obtained by accreting ice from only freezing rain is the more believable result. If all four results are the same, which occurs frequently, only one number is reported, e.g. 1 mm of ice at Buchans for 3/13 – 22/55.

There may also be multiple events at a station in the period of time covered by one storm. In that case the storm totals are reported in order, with a superscript identifying the storm. This occurred, for example, at St. John's in the 2/13 – 27/62 storm with

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in the first event and

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12

in the second.

If 0 is reported for a station, then freezing rain was observed but less than 0.5 mm of ice accreted. If there is no number at a station, there were no reports of freezing rain or ice pellets in that time period. Stations with an **x** over the station location did not have sufficient weather data for that time period to model the accretion of ice from freezing rain.











































































