

- 1 **Q. (Reference Application, 2025 – 2029 Capital Plan, page 5) It is stated “*This***
 2 ***risk highlights the importance of ensuring the electrical system is resilient***
 3 ***and designed to standards that reflect local climatic conditions, as well as the***
 4 ***importance of maintaining effective emergency response capabilities through***
 5 ***measures such as electrical system automation.”***
 6 **a) Does NP plan its system to guard against outages owing to severe**
 7 **weather events?**
 8 **b) Are outages owing to severe weather events included in NP’s reliability**
 9 **statistics?**
 10 **c) Do utilities in Canada and the United States generally plan their systems**
 11 **to guard against outages brought on by severe weather events?**
 12 **d) Do utilities in Canada and the United States generally include outages**
 13 **owing to severe weather events in their reliability statistics?**
 14 **e) What is the cost to customers of “ensuring the electrical system is**
 15 **resilient” and “maintaining effective emergency response capabilities”?**
 16
 17 **A.** a) Newfoundland Power designs its system to engineering standards, primarily
 18 Canadian Standards Association (“CSA”) C22.3 No.1.¹ Where relevant operational
 19 experience indicates that exceeding CSA design standards is prudent, higher
 20 loadings are used.² CSA regularly reviews and updates the standard based on new
 21 weather information.³ Newfoundland Power updates its design standards to include
 22 these recommendations from CSA.
 23
 24 b) Newfoundland Power tracks all outages including those from severe weather events.
 25 Reliability statistics provided in Quarterly Regulatory Reports include all outages of
 26 greater than one minute in duration regardless of cause. SAIDI and SAIFI targets
 27 are defined to be exclusive of momentary outages of duration one minute or less,
 28 Loss of Supply outages, and Major Events.⁴
 29
 30 c) Newfoundland Power cannot speak to the design practices of other utilities. It is
 31 generally accepted sound public utility practice to design the electrical system to an
 32 accepted standard.
 33
 34 d) Newfoundland Power cannot speak to the reporting processes of other utilities. It is
 35 generally accepted sound public utility practice in Canada to identify Major Event
 36 Days.⁵
 37

¹ *CSA Standard C22.3 – Overhead Systems* is updated or reaffirmed periodically. The most recent update was published in 2020, with another update scheduled for 2025.

² *CSA Standard C22.3 – Overhead Systems* cautions that consideration should be given to local areas that have higher icing and/or wind forces than the severe and heavy weather design loading.

³ CSA released a climate change adaptation amendment in 2020 based on weather modeling and data from Environment Canada

⁴ Newfoundland Power uses the IEEE 2.5 Beta method, detailed in IEEE standard 1366-2012, to determine a Major Event Day. A Major Event is defined as “an event that exceeds reasonable design and/or operational limits of the electric power system”.

⁵ See Canadian Electricity Association, “*Major Event Day Determination Reference Guide*”. Retrieved August 28, 2024 from https://www.electricity.ca/files/reports/english/MED-Methods_CEA_2015-1.pdf

- 1 e) It is not possible to determine costs related to the specific statements listed above.
2 It is Newfoundland Power's position that a less resilient and reliable system would be
3 more expensive for customers, as increased equipment failures during weather
4 events would result in additional overtime labour costs to complete repairs in a
5 reactive, unplanned fashion. For more information, see the response to Request for
6 Information CA-NP-015.