Section 2: Customer Operations/Reliability

Q. (Section 2.3.2) Newfoundland Power discusses system reliability and it appears that despite the rugged terrain Newfoundland Power's system has proven very reliable in the face of increased significant events. Can Newfoundland Power confirm this judgement and compare its system over the period 2013-2023 with that of Nova Scotia Power and Maritime Electric on the basis of the age of the plant and equipment in its system, for example, using net to gross plant in service or any other metric the company judges to be more useful?

A. Newfoundland Power confirms that its system has generally proven to be reliable in the face of major events. Major customer outages due to severe weather have become more frequent in the Company's service territory, causing customer outages in nine of the last ten years compared to just five years in the prior decade.¹

While the Company aims to maintain a consistent level of service reliability for customers, severe weather events can have a significant impact on the service provided to customers. Such events exceed the design parameters of the electrical system and may result in widespread damage and extended customer outages. Recent examples include a severe blizzard in January 2020 and Hurricane Fiona in September 2022. Restoring service to customers following such events typically requires a robust operational response as well as capital investments to repair damage to the electrical system.³

The reliability experienced by Newfoundland Power's customers principally reflects the general condition of the Company's electrical system. Newfoundland Power maintains the condition of its electrical system by applying national construction standards, and by using inspection and maintenance guidelines that reflect good utility practice.⁴

The principal design standard used by the Company is Canadian Standards Association ("CSA") standard *C22.3 No. 1-15, Overhead Systems*. This standard guides the construction of overhead distribution and transmission systems. It recognizes four classifications of weather load conditions for ice accumulation, wind loading, and temperature. These are: (i) medium loading B; (ii) medium loading A; (iii) heavy; and

See response to Request for Information PUB-NP-041, Figure 2-6.

Hurricane Fiona in September 2022 resulted in wind gusts in excess of 170 kilometres per hour. Over a three-day period, Newfoundland Power experienced island wide outages resulting from extreme winds and storm surges associated with Hurricane Fiona. Newfoundland Power employees worked throughout the period to restore power to customers and address safety issues associated with damage caused by the storm. In particular, restoration efforts were impacted on the west coast of the island in the Wreckhouse area, where winds exceeded 120 kilometres per hour all day and into the late evening.

For example, capital expenditures of approximately \$7.5 million were required to restore service to customers in 2010 following a severe ice storm and Hurricane Igor. These expenditures were approved in Order Nos. P.U. 17 (2010) and P.U. 35 (2010).

The last independent review of Newfoundland Power's engineered operations was conducted by the Board's consultant, The Liberty Consulting Group ("Liberty"), in 2014. Liberty concluded: "Newfoundland Power's transmission line and pole inspection and corrective maintenance practices conform to good utility practices." See Liberty's Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power Inc., December 17, 2014, page ES-2.

(iv) severe. Newfoundland Power's service territory has heavy and severe loading classifications. Only two other provinces are identified as having severe weather loading areas: (i) parts of northern and southern Manitoba; and (ii) rural parts of eastern Quebec, including the Gaspe Peninsula.⁵

Table 1 provides the average duration of customer outages ("SAIDI") over the period 2013 to 2022 for Newfoundland Power and utilities in the Maritime Provinces.⁶

Table 1: Average SAIDI (2013 to 2022)

	Normal Operating Conditions	Major Events	Total
Newfoundland Power	2.58	1.44	4.02
Average of Maritime Provinces	4.13	13.78	17.91

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From 2013 to 2022, the average duration of outages experienced by Newfoundland Power's customers during normal operating conditions and significant events has been less than the average of the Maritime Provinces. This primarily reflects the fact that national standards require Newfoundland Power's electrical system to be built to a higher standard than utilities in the Maritime Provinces.

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Newfoundland Power does not have access to asset data for Nova Scotia Power or Maritime Electric, and therefore cannot offer comparison between the age and condition of those systems versus Newfoundland Power's.

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See the response to Request for Information PUB-NP-046 for a comparison of Newfoundland Power's investments in transmission and distribution to the Atlantic Canadian utilities.

See Newfoundland Power's 2025/2026 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Section 3: Finance, page 3-37, footnote 90.

SAIDI indicates "System Average Interruption Duration Index." This data was obtained through Electricity Canada and includes Nova Scotia Power, Maritime Electric and NB Power. Due to confidentiality provisions, Newfoundland Power can only provide aggregate data. Electricity Canada has not yet finalized its reliability data for 2023. As such, only data up to 2022 can be provided at this time.