Q. (Reference Application, 2024 Capital Budget Overview, page 5) It is stated "*National construction standards are applied to ensure the Company's electrical system is constructed and maintained to withstand local climatic conditions*."

a) Have the standards been revised, or is there a plan to revise the standards to take into consideration global warming impacts?

b) Has NP made changes to its operation, maintenance and design practices and standards to incorporate global warming impacts?

A. a) Efforts by the Canadian Standards Association ("CSA") Standards Group are underway to identify the leading risks and impacts of climate change, gaps in the current applicable codes and practices in climate change action in the electricity sector, and potential actions for consideration in future editions of the Canadian Electrical Code - CEC Parts I, II, and III. For example, a revision made by the CSA Group in the latest version of the Canadian Standard Association, *CSA C22.3 No. 1:20 Overhead Systems* includes requirements to address climate change adaptation in overhead systems design and construction.

Newfoundland Power actively participates in several technical interest groups such as the Centre for Energy Advancement through Technological Innovation, the Electric Power Research Institute and others to maintain awareness and alignment with industry best practices that incorporate global warming considerations.

b) The geographic location of Newfoundland Power's electricity system makes its infrastructure susceptible to some of the harshest impacts of climate change, including those precipitated by sustained extreme temperatures such as sea-level rise, coastal erosion, storm surges, and wildfires.

The Company's current practices for the operation, maintenance, design and construction of the electricity system is to meet or, where practical, exceed applicable national codes and standards. The Company also follows guidelines and practices set forth by professional organizations such as the Canadian Dam Association, the Institution of Electrical and Electronics Engineers, Electricity Canada, and the CSA group, among others.

In recent years, Newfoundland Power has been incorporating climate adaptation and resilience strategies in its operation, maintenance and design practices to prepare its infrastructure for the impacts of changing climate.

For example, the Company uses enhanced physical loading and design criteria for transmission structures, and upgraded design requirements for insulators on distribution lines.[1] Newfoundland Power's distribution feeders and transmission lines are designed to meet or exceed the deterministic weather loads contained in the CSA Standard for overhead systems.

[1] *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. For additional details see the response to Request for Information NLH-NP-019.

In 2023, Newfoundland Power introduced a new transmission load case that examines maximum icing conditions under a 40% maximum wind load. This additional load case is being implemented to help mitigate the impact of significant weather events caused by climate change. A distribution wind-span design tool has also been developed and implemented to more accurately design distribution structures to withstand extreme wind loading exceeding CSA standards.