- Q. (Reference Application, 3.1 2024 Transmission Line Rebuild, page 7) Footnote 12 states "Reliability indices are lagging indicators that encompass historical issues on the electrical system. Waiting for reliability on the transmission system to degrade before undertaking capital investments would result in a poor quality of service being experienced by large numbers of customers for several years."
 - a) Does that statement apply to all transmission and distribution lines, substations, and substation equipment?
 - b) Does considering lagging reliability indicators necessarily mean that a decision is being made to wait until the transmission system degrades before undertaking capital investments, or is it just one of many considerations in such a decision?
 - c) Should the Board and intervenors ignore all historical reliability statistics referenced in the 2024 CBA?
 - d) Please identify all historical reliability statistics included in the 2024 CBA and explain why they are included given that such historical information results in poor quality of service.
 - e) How can the Board assess the merits of a project if it is to ignore historical performance, particularly when NP is unable to quantify service improvements owing to a proposed project?
- A. a) Yes, the statement "*Reliability indices are lagging indicators that encompass historical issues on the electrical system*" applies to all transmission and distribution lines, substations, and substation equipment.
 - b) If a utility relied exclusively upon lagging reliability indicators to prioritize the completion of capital investment in its transmission system, the result would be a poor quality of service being experienced by large numbers of customers for several years. Newfoundland Power's *Transmission Line Rebuild Strategy* incorporates the physical condition of the line, the risk of line failure and the impact failures would have on customers in its decision-making process.
 - c) No, the Board and intervenors should not ignore all historical reliability statistics referenced in Newfoundland Power's *2024 Capital Budget Application*.

The critical role transmission lines and substations play in providing reliable service to large numbers of customers requires that they be addressed before they deteriorate to the point that they are at significant risk of failure, which would cause poor service to customers. Transmission lines and substations serve more customers and have a higher degree of overall electrical system criticality than distribution lines.

The Company's approach to distribution corrective and preventative maintenance is both condition and reliability based. The *Rebuild Distribution Lines* program is condition based and addresses preventative and corrective maintenance issues on the Company's distribution lines. The *Distribution Reliability Initiative* project identifies the Company's worst performing feeders based on reliability indices and

engineering assessments. Distribution lines serve less customers than transmission lines and substations and, therefore, have lower criticality. As a result, assessing reliability indices on the distribution system is reasonable.

d) Reliability statistics are included in Newfoundland Power's 2024 Capital Budget Application in three places: (i) the Distribution Reliability Initiative project; (ii) the 2024 Capital Budget Overview, and (iii) the 2024-2028 Capital Plan. Historical reliability indices as shown in the 2024 Capital Budget Application provide value in that they are reflective of both the overall condition of the electrical system, and the Company's response when outages occur.¹

Historical and forecast system reliability trend information is a requirement of the Company's annual capital budget application as established in the Provisional Guidelines, Appendix A, section I.B, on page 9 of 18. Also, the required information for the various investment classifications require historic reliability information for projects and programs in the Renewal, Service Enhancements and General Plant investment classifications.

e) The Board can assess the merits of transmission line rebuild projects based on the evidence brought forward by the utility, in particular the current condition of the transmission line. The Board addressed the use of historical reliability performance in the order approving the Company's 2023 Capital Budget Application. In that order, the Board stated:

The Board does not take past reliability performance as evidence of future reliability performance, especially in light of the evidence showing the deteriorated condition of the line.²

For more information on how Newfoundland Power balances cost and service, see Newfoundland Power's 2024 Capital Budget Application, 2024 Capital Budget Overview, Section 2.2 Capital Planning at Newfoundland Power and Section 2.3 Balancing Cost and Service.

² See Order No. P.U. 38 (2022), page 15, lines 24-26.