Q: (Liberty December 17, 2014 Report to Board on *Supply Issues and Power Outages Review Island Interconnected System* addressing Newfoundland and Labrador Hydro) It is stated (page 10) in reference to Mr. Weber: "*… where he produced major improvements in SAIFI and SAIDI performance*." In Mr. Weber's experience, how do utilities balance improvements in transmission and distribution reliability with the impact on rates and customer willingness to pay? Further, how do utilities incorporate the "value" of transmission reliability improvements with impacts on power system/market costs? For example, should a utility forego reliability improvement programs on a poorly performing transmission line if outages on the line have limited impact on power production costs or market prices, and instead focus on the reliability of better performing lines when outages have a major impact on power production costs/market prices?

A. A major challenge of managing the reliability function is to improve the reliability of the transmission and distribution systems without materially increasing customer rates. Most utilities use some form of Asset Management, which provides a method to ensure that both capital and operating funds are used to produce the best outcomes, of which reliability improvement is but one criterion. Other criteria may include safety and regulatory mandates, for example. Reliability improvements are not typically "valued" in a direct economic or cost sense. Determining "value" is subjective and in any event problematic to quantify. Improvements in standard reliability metrics, such as SAIFI, CAIDI and number of Momentary Outages are more meaningful.

With respect to trade-offs between investments that will reduce costs versus those that will increase them, but improve reliability, note first that the former do not generally compete with reliability projects, because cost saving projects do not cause net expenditure increases but reductions. Second, properly assessing value, which includes service improvements may nevertheless place first priority in improving "poorly performing" facilities first, even if their costs are comparatively higher than for those projects that produce some offset in other costs or increases in revenues. That would depend on the degree of reliability improvement to be secured by pursuing the "poorly performing" facility's improvement. Third, it is artificial to look at simple binary choices, as planning for a complex utility system involves consideration of a multitude of needs, many frequently achievable through multiple options having different results, and all addressable not simply by accepting and rejecting, but also by advancing and deferring somewhat.