Q. (Reference Application Schedule B, Distribution Feeder Automation, page 14) Did Liberty consider cost relative to service improvement? Did Newfoundland Power consider cost relative to service improvement?

A. Yes, both Liberty and Newfoundland Power considered cost relative to service improvement for the installation of automated downline reclosers.

Automation of the distribution system through the installation of downline reclosers provides operational benefits during customer outages, particularly significant events. Downline reclosers are operated remotely to restore service to customers without the requirement to dispatch field crews. By sectionalizing distribution feeders, portions of feeders no longer need to be patrolled to identify the cause and location of outages.[1] Avoiding the need to dispatch field crews and decreasing patrol times reduces costs to customers.[2]

Recommendation 2.4 of Liberty's *Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power Inc.* indicates priority be given to feeders based on installation costs versus anticipated avoided customer interruptions.[3]

In 2020, Newfoundland Power established a plan to increase the deployment of automated equipment on its distribution system.[4] The Company's plan balances the cost of installing downline reclosers and anticipated avoided customer interruptions by applying deployment scenarios.[5] The deployment scenarios provide a structured approach to optimizing the placement of downline reclosers to ensure they provide the maximum benefit to customers.[6] The determination of the optimal deployment scenario for a downline recloser varies depending on a feeder's geographic location, length, customer count and loading.

The 17 downline reclosers proposed to be installed in 2023 under the *Distribution Feeder Automation* project were determined in accordance with these deployment scenarios to ensure optimal placement and maximum customer benefits.

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1 Given the size of Newfoundland Power's service territory, long drives to identify the cause of outages are not uncommon. Reducing the length of distribution feeder to be patrolled reduces the time necessary to locate faults and provides cost benefits.

2 See the response to Request for Information NLH-NP-015 for an example of the savings yielded from reducing the response time required to locate an outage and manually operate a device at night using a line crew and a technologist.

3 Recommendation 2.4 states *"Investigate the installation of downstream feeder reclosers for the purpose of improving distribution SAIFI and SAIDI indices, in addition for reducing cold load pick up difficulties, with priorities given to feeders based on installation costs versus anticipated avoided customer interruptions."* See The Liberty Consulting Group's *Report on Island Interconnected System to Interconnection with Muskrat Falls addressing Newfoundland Power Inc.*, December 17, 2014, page 26.

4 See the *2020 Capital Budget Application,* report *4.5 Distribution Feeder Automation.*

5 See the *2023 Capital Budget Application, Schedule B*, page 12.

6 See the *2020 Capital Budget Application,* report *4.5 Distribution Feeder Automation, Section 3.0 Distribution Automation Deployment*.