

1 Q. **Reference: Application Volume 2, Install Recloser Remote Control (2022) – Various**

2 What are the expected cost savings to customers resulting from the recloser remote control
3 program? Please quantify the expected improvement in SAIDI.

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6 A. Cost savings resulting from the recloser remote control program cannot be quantified to a
7 reasonable degree of accuracy as they are expected to be achieved primarily through the
8 efficiencies associated with having the ability to remotely control the equipment. For example, a
9 large portion of the costs expected to be saved relate to reduced travel requirements related to
10 the operation and maintenance of the recloser. Travel time is reduced in several ways:

11 • Without recloser remote control, where there is a line fault line crews must travel to the
12 recloser location to operate the recloser to de-energize the line prior to performing
13 repairs at the fault location. Once repairs are complete, the line crews must travel back
14 to the recloser location to re-energize the line. With recloser remote control, de-
15 energization and re-energization can be performed remotely by the Electrical Control
16 Centre (“ECC”). In this case, the line crews only need to travel to the nearest physical
17 location point(s), typically a line disconnect switch, in order to isolate the line for
18 repairs.

19 • Without recloser remote control, travel to the recloser site would be required monthly
20 to access feeder loading data and monitor recloser status. With recloser remote control,
21 recloser/feeder performance data can be acquired over the supervisory control and
22 data acquisition network.

23 • Recloser remote control will reduce the number of trips that Newfoundland and
24 Labrador Hydro (“Hydro”) line crews have to make to the recloser location to place the
25 device in "hold-off" for pole installations and vegetation removal by contractors.

26 • A percentage of outages would no longer need to be attended by a line crew as the ECC
27 could reset the recloser without a line inspection.

1 Site accessibility and site location are the leading factors that resulted in prioritization of the
2 remote control of reclosers proposed in this project. It is estimated that System Average
3 Interruption Duration Index (“SAIDI”) for the two Jackson's Arm reclosers could be improved
4 by approximately 10% through savings in switching efficiencies and remote reset of
5 reclosers by Hydro’s ECC. The SAIDI in 2020 for JA1-R1 and JA2-R1 was 0.54 and 6.94
6 respectively. The frequency of long outages will also decrease from the customer
7 perspective due to the ability of ECC to remotely reset reclosers.

8 The SAIDI for the Coney Arm recloser is not applicable since the only customer for this
9 recloser is Hydro's Cat Arm Hydroelectric Generating Station. Recloser remote control is a
10 priority for this recloser since the Coney Arm Terminal Station provides an alternate source
11 of station service to the Cat Arm Hydroelectric Generating Station.

12 It is noted that the proposed feeders are located in the White Bay region and that it would
13 take crews from Hydro’s Springdale depot approximately two hours to reach these remote
14 sites.