

1 Q. **Reference: Project 25: Distribution Equipment SCADA Additions – Phase I (2027–2028) pages 3**

2 Provide a copy of the distribution automation strategy.

3
4
5 A. The distribution automation strategy document contains sensitive asset information which
6 could jeopardize Newfoundland and Labrador Hydro's ("Hydro") cybersecurity. Hydro created its
7 Supervisory Control and Data Acquisition ("SCADA") Connection Deployment Plan using a two-
8 stage approach. A synopsis of Hydro's SCADA Deployment Plan strategy has been provided as
9 follows:

- 10 • **Stage 1 – Substation Distribution Equipment:** A prioritization list for all Hydro
11 substations has been created to sequentially order the installation of remote monitoring
12 and control based on the following parameters:
 - 13 o Priority 1 – sites having both existing communications at the station and a
14 majority of intelligent devices already in place, or a failed metering tank that
15 could be replaced virtually using voltage regulator PT/CT feedback to SCADA.
16 For these sites, we can utilize the existing technology with some programming
17 changes and installation of local cables/communication cards in the panels to
18 reduce monthly visits in an expedited fashion. It is expected that these stations
19 can be completed much faster and in greater numbers due to the pre-existing
20 communications links. The conversion of an existing failed physical non-revenue
21 metering tank with a virtual type offsets the high costs of the physical
22 replacement, justifying the higher priority.
 - 23 o Priority 2 – sites with either existing communications or intelligent devices in
24 place but requiring new infrastructure and upgrades. Moderate levels of
25 investment will be required to complete connections to these stations.
26 Deployment will be slower and in lower numbers annually as more significant
27 engineering will be required for this.

- Priority 3 – sites with no communications and no appropriate intelligent devices. These stations are expected to be the most financially and engineering intensive.

- **Stage 2 – Distribution Feeder Equipment/Non-Customer Stations:** A prioritization list for all remaining Hydro distribution equipment, installed on feeders or not associated with rural customers, will be created to sequentially order the installation of remote monitoring and control. Equipment will be grouped based on the feeder in which they are associated, and the prioritization list will consist of feeders instead of individual equipment. Priority for communications deployment will be based on the following parameters:

- Priority 1 – feeders having both ready access to a low-cost communication link (i.e., roadside fibre) and a majority of intelligent devices already in place. Within this classification, the listing will be sorted on feeder priority. For these feeders, we can utilize the existing technology along with installation of a short tap to the communications infrastructure to reduce monthly visits in an expedited fashion. It is expected that these feeders can be completed much faster and in greater numbers due to the ease of access to communications links.
- Priority 2 – feeders with either existing communications or intelligent devices (but not both) in place; new infrastructure and upgrades will be required. Within this classification, the listing will be sorted on feeder priority. Moderate levels of investment will be required to complete connections to these feeders. Deployment will be slower and in lower numbers annually as more significant engineering will be required for these.
- Priority 3 – feeders with no communications and no appropriate intelligent devices. These feeders are expected to be the most financially and engineering intensive.

To date, a priority list for substations has been developed for Stage 1, using the ranking criteria provided in Appendix A of the proposal. The priority list is provided in Table 1.

Table 1: Substation Priority List - Stage 1¹

System	Station Type	Total Points
Jackson's Arm	TS ²	134
Glenburnie	TS	109
Parson's Pond	TS	104
Farewell	TS	88
Roddickton	TS	84
Bottom Waters	TS	81
English Harbour	TS	81
Barachoix	TS	81
Happy Valley	TS	81
Nipper Harbour	SS ³	81
Bear Cove	TS	79
Hampden	TS	79
Grandy Brook	TS	76
St. Anthony	TS	76
Burlington	SS	74
Hawks Bay	TS	71
L'anse-au-Loup	SS	66
Taylors Pond	TS	64
Cow Head	TS	64
Plum Point	TS	64
Rocky Harbour	TS	61
South Brook	TS	61
Fogo	SS	61
Main Brook	TS	59
Daniel's Harbour	TS	59
Roberts Arm	SS	59
Triton	SS	59
La Scie	SS	59
Bay d'Espoir	TS	56
Nain	SS	54
Black Tickle	SS	54
Vanier	TS	54
Wabush	TS	54
Quartzite	TS	54
St. Brendan's	SS	54
Makkovik	SS	51
Mary's Harbour	SS	51
Cartwright	SS	51

¹ Based on asset conditions, outage and resource availability at the time of execution, Hydro may advance or defer the replacement of specific assets to ensure efficient and effective implementation of this project.

² Terminal Station ("TS").

³ Substation ("SS").

System	Station Type	Total Points
Hopedale	SS	51
Conne River	TS	49
Port Hope Simpson	SS	49
Burgeo	SS	49
Sally's Cove	TS	47
Natuashish	SS	44
Postville	SS	44
Rigolet	SS	44
North Side	SS	44
Brents Cove	SS	44
Cooks Harbour	SS	44
St. Lewis	SS	39
Charlottetown	SS	39
Wiltondale	TS	37
Lodge Bay	SS	37
Thorne Lake	TS	32
Walsh River	TS	27
Duley Lake	TS	27
Pinsents Arm	SS	27