

1 Q. **Reference Application Rev. 1, Volume 2, Terminal Station Refurbishment and Modernization**

2 a. To date, how much has this approach to asset management saved Hydro’s customers?
3 Please provide savings on an annual basis.

4 b. What improvements has Hydro made to this asset management plan over the years since
5 initial startup in terms of effectiveness and efficiency?
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8 A.

9 a. As stated in Newfoundland and Labrador Hydro’s (“Hydro”) first Terminal Station and Asset
10 Management Overview document submitted with Hydro’s 2017 Capital Budget Application,
11 Hydro estimates this asset management approach saves approximately \$10,000 per report.¹
12 Table 1 summarizes Hydro’s estimated savings for each Capital Budget Application since
13 2017.

Table 1: Estimated Savings 2017–2021

Year	Estimated Savings (\$)
2017	120,000
2018	140,000
2019	140,000
2020	130,000
2021	140,000
Total	670,000

14 In addition, such an approach affords efficiency to the regulatory process.

¹ If this combined approach was not taken, Hydro would need to prepare and submit separate reports for the individual components associated with Terminal Station modernization work.

- 1 **b.** The following are improvements that Hydro has made to this asset management plan since
2 its introduction:
- i. Added more terminal station asset groups to the program² to eliminate the need to produce separate reports and also help better coordinate work at various locations. The improved coordination of work within various terminal station asset classes also has the benefit of minimizing outages to customers.
 - ii. Due to the high cost of installation, breaker bypass switches were put on hold and will be considered if lower cost options can be realized or the work can be completed under a larger terminal station expansion projects at lower costs.
 - iii. For 2021, Hydro has updated its asset management plan for SF₆ circuit breakers such that as a breaker approaches 40 years of life a further condition assessment will be completed to determine if more life can be achieved through other means, such as an overhaul, in an effort to defer replacement costs.

² The following were additions to the program: Install Breaker Bypass Switches and Wabush Terminal Station Upgrades (2018); Battery Banks and Chargers, Control Buildings and Digital Fault Recorders (2019); Replace Station Lighting and Modified Breaker Failure Protection Replacement Plan to include 230 kV Stations (2020); and Synchronous Condensers and Removed Wabush Terminal Station Upgrades (2021).