

- 1 Q. **Reference Avalon Capacity Study, Section 4:**
- 2 Please provide outage rates for Hydro's transmission lines in terms of hours per kilometer-
- 3 year. Please provide these rates by voltage class and, if available, construction type, such as
- 4 lattice tower, steel pole, wood pole, and wood H-frame.
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- 7 A. Table 1 and Table 2 detail Newfoundland and Labrador Hydro's transmission line outage
- 8 rates in terms of hours per kilometre-year. The data is broken down by voltage class and
- 9 structure type as per Canadian Electricity Association reporting. Table 1 provides the 2014
- 10 to 2018 5-year performance while Table 2 outlines the 2009 to 2018 10-year performance.

Table 1: Transmission Line Outage Rates from 2014 to 2018

Voltage Level	Structure Type	Hours per Kilometre-Year
230 kV	Steel, self-supporting	0.380
	Steel, guyed	0.015
	Wood, double pole	0.012
	All types	0.015
138 kV	Wood, double pole	0.064
	Aluminum, guyed	0.154
	All types	0.083
66 kV	Wood, single pole	0.232
	Wood, double pole	0.031
	All types	0.171

Table 2: Transmission Line Outage Rates from 2009 to 2018

Voltage Level	Structure Type	Hours per Kilometer-Year
230 kV	Steel, self-supporting	0.190
	Steel, guyed	0.159
	Wood, double pole	0.114
	All types	0.146
138 kV	Wood, double pole	0.047
	Aluminum, guyed	0.098
	All types	0.057
66 kV	Wood, single pole	0.276
	Wood, double pole	0.023
	All types	0.199