

1 **Q. (Reference CA-NP-062) Please provide a lifetime cost comparison of**
2 **wood versus galvanized steel structures identifying capital, operation and**
3 **maintenance costs of each.**
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5 **A.** The Company has not completed a detailed lifetime cost comparison of wood and
6 galvanized steel structures. Decisions regarding the installation of wood versus steel
7 structures are influenced by factors beyond the cost of capital, operational, and
8 maintenance requirements.
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10 In addition to life-cycle considerations, the Company also considers factors such as
11 structural performance, site constraints, and operational efficiency when determining
12 whether to install steel structures.¹
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14 Steel structures are more physically stable than wood structures, which move and twist
15 over time. This makes steel structures better suited for mounting equipment such as
16 high voltage switches, as they stay properly aligned which reduces maintenance, repair
17 and replacement of switches. Steel structures also do not require guying. This decreases
18 the overall dimensions of the substation compared to designs employing guyed wooden
19 structures.

¹ A 2024 survey conducted through Centre for Energy Advancement through Technological Innovation ("CEATI") gathered responses from 13 utilities regarding substation structure standards. Of the 13 respondents, six utilities reported having no wood structures in their substations. Among the remaining seven utilities, six indicated that their standard going forward is to use steel structures for substation applications. These results reflect a strong industry trend toward galvanized steel structures, with standards focused on reliability, resilience, and long-term asset performance. This highlights the advantages of steel in terms of durability, resistance to rot, pests, and environmental degradation, greater structural reliability under wind and ice loading conditions, and reduced maintenance requirements compared to wood.