

1 Q. **Reference: Response to PUB-NLH-124**

2 How does Hydro ensure that indices used to prioritize feeder projects do not negatively impact
3 smaller rural feeders with poor reliability performance from being included in the annual
4 Upgrade Worst-performing Distribution Feeders?

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7 A. The worst performing distribution feeders analysis includes three main reliability indices: CHI,¹
8 SAIDI,² and SAIFI.³

9 Analyzing these three indices together ensures that smaller feeders are considered equal
10 candidates for capital investment.

11 CHI is heavily influenced by the number of customers on a feeder. A large feeder that serves
12 many customers can quickly accumulate a high CHI value, even from a single outage. A small,
13 rural feeder may experience frequent or prolonged outages, resulting in poor reliability
14 performance from a customer perspective, while its total CHI remains relatively low due to the
15 small number of customers served by the feeder.

16 To avoid this effect during the feeder prioritization process, the worst performing distribution
17 feeders analysis also considers normalized performance indices such as SAIDI and SAIFI, which
18 are calculated on a per-customer basis, regardless of the size of the feeder.

¹ Customer Hours Interrupted ("CHI").

² System Average Interruption Duration Index ("SAIDI").

³ System Average Interruption Frequency Index ("SAIFI").