

1 Q. Sunnyside Replacement Equipment: Please provide all Hydro's analyses from its
2 past January 2014 investigation that show why it was more cost effective or
3 otherwise preferable to install a 230kV transformer breaker for T1 transformer than
4 it would be to install transfer tripping to the line breakers at the remote terminal
5 stations.

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8 A. The benefit of this installation of a dedicated circuit breaker on T1 is that a fault on
9 transformer T1 does not require the electrical isolation of Bus B1. Therefore, failure
10 of transformer T1 would not result in an interruption to customers supplied
11 through this station, as T4 would remain in service. Furthermore, with a dedicated
12 circuit breaker for transformer T1, Bus B1 would have to be isolated only in the
13 event of a transformer fault where the transformer circuit breaker fails to operate.

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15 In the alternative, without a dedicated circuit breaker for transformer T1 at
16 Sunnyside Terminal Station, Bus B1 must be isolated in the event of a transformer
17 fault, and all customers supplied through that station would be interrupted. In the
18 event of a transformer fault where a circuit breaker also fails to operate, transfer
19 tripping of line breakers at remote terminal stations would be required to clear the
20 fault, resulting in a broader system impact.