

1 Q. Sunnyside Replacement Equipment Please: (a) identify the number of separate
2 station service sources that were available at Sunnyside terminal station under
3 normal conditions, (b) state whether any of those sources would have been
4 available, if the fire had not damaged the equipment, while the transmission system
5 was down, (c) state how many sources are available at Sunnyside now, and (e) state
6 whether and when Hydro has considered installing a backup generator (black start)
7 at Sunnyside and at other critical terminal stations.

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10 A. (a) Under normal conditions, the Sunnyside Terminal Station has two sources of
11 station service.

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13 (b) With the 138 kV and 230 kV transmission systems out of service, neither of the
14 station services would be available.

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16 (c) Currently, there are two sources for station service at Sunnyside.

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18 (e) To date, Hydro has not considered installing a backup generator (blackstart) at
19 Sunnyside and at other critical terminal stations. Currently, Hydro has a design
20 philosophy of maintaining two sources of station service at its major 230 kV
21 terminal stations. For 230/138 kV stations, station service is typically supplied via
22 the delta tertiary of two 230/138 kV autotransformers. For 230/66 kV stations,
23 station service is typically supplied from either two station service transformers
24 (one of which may be a combined grounding transformer/station service supply) or
25 from a single grounding transformer/station service supply and from the adjacent
26 Newfoundland Power distribution system. As per Hydro's Integrated Action Plan,
27 Hydro is reviewing this matter.