

1 Q. **Re: p. B-35** Provide historical information on the causes of faults in the
2 Bottom Brook area, and advise as to what alternatives to the proposed
3 equipment have been considered by Hydro.
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7 A. For the years 1999 –2003, there were 139 faults on the lines out of the
8 Bottom Brook Terminal Station. The causes identified were as follows:

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10 Defective Equipment 52

11 Lightning 48

12 High Winds 27

13 Salt Contamination 11

14 Unknown 1

15 139

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17 The use of “intelligent relay” output data and oscillography was considered
18 as an alternative, but the fault recorder is the better alternative as all fault
19 information is recorded and stored in the one device on the same time base,
20 and is triggered for common problems, such as, bus faults, remote line or
21 system problems. Line relays generally only trigger for problems on their own
22 lines. Also, all lines in the station currently do not have “intelligent relays
which can provide the data that can be provided by the fault recorder.