

1 Q. **Tab 13; Volume II: Muskrat Falls to Happy Valley - Interconnection**

2 Hydro states on page 4, line 23, that “As this project will increase the maximum
3 fault level in the Happy Valley Terminal Station, five reclosers and one circuit
4 breaker will be replaced with six new circuit breakers”. Why are the reclosers being
5 replaced with circuit breakers rather than reclosers?
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8 A. The preferred interconnection alternative calls for the connection of a single 138 kV
9 transmission line from Muskrat Falls to Happy Valley along with the addition of a
10 fourth 138/25 kV, 50 MVA transformer at Happy Valley. Hydro sizes protection
11 devices based on worst case or maximum conditions. For the preferred
12 interconnection alternative, the maximum fault level would occur when the Happy
13 Valley Gas Turbine is operating in parallel with the Muskrat Falls interconnection. It
14 is estimated that the line-to-ground fault level on the 25 kV bus with all equipment
15 in-service would be 752 MVA or 17.4 kA. The highest interrupting rating on
16 reclosers of the 25 kV class is 16 kA, therefore, circuit breakers are required to
17 satisfy the interrupting requirement due to possible fault levels.