

1 Q. Has Hydro adopted quantitative risk assessment criteria with respect to
2 reliability, safety and environmental risks? If so, what criteria have been
3 adopted, what is the source of the criteria and what is the acceptable level of
4 risk adopted by Hydro with respect to each type of risk?

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7 A. Hydro has not adopted quantitative risk assessment criteria with respect to
8 safety and environmental risk; however, such methods are applied with
9 respect to generation planning and some aspects of hydro generation and
10 transmission line design.

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12 For the Interconnected Island systems, Hydro, in generation capacity
13 planning, uses a loss of load expectation target of less than 2.8 hours per
14 year to ensure that sufficient generation capacity is available. This target or
15 its equivalent has been in place since the 1980's and was set based on
16 engineering judgment and the comparative practices of other Canadian
17 utilities.

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19 For dyke and dam design associated with hydro plants, the design criteria for
20 high hazard structures is Peak Maximum Flood (PMF), which is derived from
21 an assessment of historical flood events in the region and is recommended in
22 the Dam Safety Guidelines of the Canadian Dam Association.

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24 For transmission line design, the combined wind and ice-loading criteria of
25 the line is designed for a one in fifty year return period. This level is
26 commonly used by other Canadian utilities.