Q. (PUB-NLH-23 and the question posed in CA-NLH-26) What is the probability that an outage of this type will occur in the coming winter period. For example, could it be said that based on past experience, the probability of such an outage event is approximately 1 in 20 years, or 5%?

A. Since 1991, there has been one outage that required the blackstart capability of the Holyrood plant due to an *extended transmission supply interruption to the broader Avalon Peninsula* and one outage that required blackstart capability of the Holyrood plant due to *unavailability of the transmission system connection at the Holyrood plant*. These outages occurred in December 1994 and January 2013, respectively. Please refer to Hydro's responses to CA-NLH-004 and IC-NLH-010 for details surrounding these events.

The probability of such outages in the coming winter period is reduced due to the actions Hydro has undertaken as a result of the causes of these outages. Subsequent to 1994, in which ice and snow loadings on the transmission lines caused the lines to fail, Hydro reinforced the 230 kV transmission lines to the Avalon Peninsula by rebuilding the steel tower 230 kV lines to withstand higher ice loadings. Also following the January 2013 event when the insulation of the 230 kV breakers were compromised by the very high salt contamination brought on by the severe winds from the blizzard experienced at that time, Hydro undertook to increase the insulating capability of the 230 kV breakers on the units at the Holyrood plant to withstand a higher salt contamination. This is being further enhanced in 2014 with the planned completion of the replacement of three of the six 230 kV air blast circuit breakers connected to the three generating units at Holyrood with breakers having higher insulating properties.