Q. Reference: Energy Supply Risk Assessment Update, November 30, 2016. Please describe the extent to which generation outages are considered in the estimation of transmission losses. Specifically, are allowances made for significant outages of generation closer to the load center with the need for replacement generation located a greater distance from the load center?

A. Yes, full consideration of significant outages of generation closer to the load centre, with the need for replacement generation located at a greater distance from the load centre, are considered in the estimation of transmission losses.

As presented in Section 7.2.3 of Hydro's Energy Supply Risk Assessment (ESRA), extended Transmission Planning exposure for unserved energy for various operating scenarios beyond the scope of Transmission Planning criteria was assessed. These scenarios include outages to multiple units on the Avalon Peninsula. The results of this analysis formed the basis for the calculation of expected unserved energy in Hydro's ESRA.

Section 7.2.3.1, Loss of Multiple Holyrood Units, provides a detailed discussion on how the unavailability of multiple thermal units at Holyrood, i.e., close to the load centre (Avalon Peninsula), impacts the load that can be supported at that load centre. Before the inservice of TL267, transmission constraints exist in the TL202/TL206 transmission corridor, limiting the replacement generation that can be delivered to the Avalon from the Western portion of the Island Interconnected System (IIS) (i.e., replacement generation located a greater distance from the load centre). After the inservice of TL267, the system is no longer transmission constrained and the loss of two or more units at Holyrood would result in a shortfall

of generation for the IIS on a system basis, rather than an issue for the Avalon Peninsula. This analysis is fully explained in Appendix C of Hydro's ESRA.