Q. **Re: B-5, Rewind Generator Units 1 and 2, $112,200 in 2012, $1,107,600 in 2013, and $10,681,400 in future years**

In relation to the AMEC report at page D3, why was the operating time to major inspection increased from 7 to 9 years, given, as noted by AMEC, the "*poor condition of the stator windings and the progressive nature of the loosening mechanism*"?

A. In 2003, Hydro contracted the Hartford Steam Boiler Inspection and Insurance Company to perform a Steam Turbine Generator Risk-Based Analysis for Holyrood Units 1 and 2. This report determined, based on the Holyrood operating profile of in-service hours of approximately six months/year, that a major outage interval of approximately 9.7 years would be acceptable from a risk of failure point of view. This report looked at industry standard major outage times and determined that the previous six-year outage interval was in line with units that run continuously (approximately 12 months/year).

The risk analysis was done from a generic point of view based on accepted industry practice. No unit specific test data was used in this analysis. When the major outage test data became available to Hydro in 2003 (Unit 1) and 2005 (Unit 2), the risk factors associated with the increased outage window were carefully considered. The decision was made to continue with the nine-year outage window, given the decreasing loading requirements on the units in the last five years (due to decrease in overall Island Interconnected System loading, careful analysis of online condition monitoring and the fact that the Holyrood plant is used to meet peak demands on the system in winter months). The decision to maximize the value of

the present stator winding assets seems sound, as no in-service failures have been experienced to date.

Given the additional operating hours amassed on the units since the last major outages, in concert with the 2011 AMEC condition assessment report, the decision was made to proceed with a budget proposal to schedule rewinds (Unit 2 in 2014, to realize the additional savings opportunities of performing the rewind work in concert with a scheduled major outage, Unit 1 in 2015) in 2012.