Q. Reference: Energy Supply Risk Assessment Update, November 30, 2016, page 22, lines 11-13. Has the assessment by GE been completed? If yes, describe the remedial actions identified by GE and the actions planned by Hydro to address the recommendations.

A.

A Lead Controls Engineer from General Electric (GE) was at Holyrood on December 8 and 9, 2016, and completed the assessment. During the visit, the engineer provided a complete list of spare parts that could fail on the turbine controls system. This list was reviewed against the current inventory of spares that Hydro is maintaining. The primary recommended remedial action from this visit was for Hydro to increase the spare parts inventory to match the provided list. Hydro had previously stocked all of the circuit board cards, which have been the most common failure parts. The additional recommended parts included terminal boards and electronic components, such as resistors, diodes and capacitors. Hydro will comply with this recommendation and has initiated the process of adding the required parts to inventory. Hydro will expedite this order as much as possible.

GE also recommended to increase turbine controls support through an additional contract, beyond the existing revitalization agreement with GE as the contracted agreement does not currently provide for response times, both remote and on-site, that Hydro prefers. To close these gaps, Hydro is considering making Mark V controls support part of the next turbine maintenance contract, which will go to tender in early 2017.

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- 1 Hydro has also requested and received a quotation from GE for the upgrade of the
- 2 existing control system (which is obsolete) to the current standard. Hydro is
- 3 reviewing this option as a potential reliability improvement.