Q. Does Hydro still consider under frequency load shedding ("UFLS") acceptable for loss of generation in the IIS post Muskrat Falls interconnection? If the answer is yes, will the targets for UFLS for Newfoundland Power and Hydro customers remain less than 4 or 5 per year respectively?

A. The Post Muskrat Falls under frequency protection system is being designed and will be operated such that for the single contingency loss of on-Island generation will not result in under frequency load shedding. As a result, the frequency of UFLS events post interconnection will be significantly less than current levels. Under frequency load shedding will continue to be applied as it is in all power systems to protect power system equipment and prevent uncontrolled customer load loss for more extreme events such as the loss of multiple on-Island generating units.

While the Island Interconnected System is not NERC compliant at this point in time, the scenario described above may be considered in the context of Reliability Standards for Bulk Electric Systems in North America. Referencing standard TPL-001-0.1, Table 1 – Transmission System Standards – Normal and Emergency Conditions, "Category C Events" are described as those "resulting in the loss of two or more (multiple) elements". In such a case, the power system must remain stable with both thermal and voltage limits within applicable ratings and the loss of demand or curtailed firm transfers must be planned and controlled. This is the case for the under frequency load shedding scenarios described above.