Q. On pg. 7 of Exhibit 23 it is stated that significant modifications would have to be made to the existing under-frequency load shedding schemes to deal with the impact of the loss of both poles of the HVdc system. Explain, in detail, the required under-frequency load shedding schemes that would be required in the event of the loss of both poles of the HVdc system and what would comprise the approximately 750 MW of load that would have to be shed in such a contingency.

A. The existing under frequency load shedding (UFLS) scheme is set to arrest frequency decay following sudden loss of generation such that load shed, in conjunction with governor action, will restore the balance between generation and load, thereby returning the system frequency to normal (60 Hz) and avoiding system collapse. The existing UFLS scheme is set based upon a largest unit load of 175 MW.

By comparison the sudden loss of both poles of the bi-pole system at Soldiers Pond would result in approximately 750 MW of supply for an 800 MW HVdc system loading. The 575 MW difference in loss of supply between the two scenarios will therefore require modifications to the existing UFLS scheme. Studies underway in detailed design will address the sudden loss of the bi-pole at Soldiers Pond and parameters for a special protection scheme (SPS) for the contingency will be developed. At this stage it is envisioned that any exports via the Maritime Link will be curtailed for the loss of the bi-pole. In addition tripping of load centers on the Island to rebalance load with the remaining hydroelectric generation will result in an electrical island as opposed to a system wide blackout. It is expected that the Avalon Peninsula, and potentially the Burin Peninsula depending upon system load

conditions and HVdc Link load conditions, will need to be tripped to maintain an electrically isolated island containing remaining hydroelectric resources.

Recovery of the interconnected island system from the operating hydroelectric resources will occur more quickly than if there was a complete island blackout for the event.

This is described in more detail in Exhibit 106 – Technical Note: Labrador Island HVdc Link and Island Interconnected System Reliability.