Q. In Exhibit 49.2(d) HVDC losses are shown at 5%. Please explain the discrepancy between this value and the 10% worst case value shown in the response to MHI-NALCOR-62.

A. In selecting a voltage level for any transmission system there are a number of factors involved, including, but not limited to, technically available voltage levels, analysis of the voltage drop and prospective losses associated with the candidate voltage level(s) and the economics of capital versus value of losses. In developing a technically viable Labrador – Island HVdc Link, a reasonable maximum loss value of 10% worst case was chosen to determine the minimum acceptable operating voltage as indicated in response to MHI-Nalcor-62. The calculations indicated a minimum acceptable HVdc system voltage of ±320 kV. At the ±320 kV operating voltage both the line commutated converter (LCC) and voltage source converter (VSC) technologies would be viable candidates for the proposed HVdc system. As noted in the response to MHI-Nalcor-62, detailed voltage and conductor optimization, which invariably leads to optimization of the loss value, is to be conducted in final design. Therefore, in final design, one expects the optimization to result in peak losses below the “worst” case 10%.

Exhibit 49.2(d) filed in response to MHI-Nalcor-49 utilized an estimated average loss rate of 5% for the Labrador – Island HVdc Link and not the peak load loss rate of 10% utilized in determining the minimum technically viable HVdc system voltage.

Transmission losses will be evaluated further in conjunction with conductor, converter, and transmission optimization during detailed engineering prior to Project Sanction.