Q. Has the transmission line from Muskrat Falls to Churchill Falls been included in the analysis and cost estimate? On what basis? (Synopsis of 2010 Generation Expansion Decision – Exhibit C, page 3 of 9 mentions the recall of 300 MW capacity from Upper Churchill as a basis for the 900 MW HDVC Link).

A. A transmission interconnection between Muskrat Falls and Churchill Falls is required to ensure effective water management on the Churchill River. The transmission interconnection is required to facilitate energy transfers between the two plants, and thus energy storage. Without water management, production at Muskrat Falls would be largely dependent on production at Churchill Falls.

A reliable transmission interconnection (two lines) is required in order to maintain the stability of the eastern Labrador power system (Muskrat Falls, TL240, and Happy Valley-Goose Bay) in the event of a fault on the transmission line interconnecting Muskrat Falls and Churchill Falls. Without the second interconnection, an AC transmission fault in Labrador may result in:

1) A substantial load rejection on the Island Interconnected system if Muskrat Falls is transferring energy to Churchill Falls, or

2) a substantial loss of generation on the Island Interconnected system if Churchill Falls is returning energy back to Muskrat Falls.

The Island Interconnected system will not survive a loss of several hundred megawatts of load or generation, and as a result, two 345 kV transmission lines between Churchill Falls and Muskrat Falls have been included in the Basis of Design and the capital cost estimate for analysis.