

1 Q. Teshmont carried out studies for the network and generation immediately before  
2 and after the introduction of Labrador Island Link ("LIL") and Maritime Link ("ML")  
3 and assuming the shutdown of Holyrood after their introduction. The study  
4 assumed peak load conditions. The reserve in the Island Interconnected System for  
5 the first study was a total of 195MW and for the second study 418.8 MW (see Table  
6 23). Table 23 shows that of the 418.8MW reserve, 373 MW would be at zero  
7 output. The Teshmont study states that in the event of a bipole trip of LIL, with ML  
8 in service and able to provide 300 MW support to the Island Interconnected system,  
9 the Expected Unserved Energy ("EUE") would be 200kWh. If imports from ML are  
10 not available, then the EUE would increase to 2.72GWh; i.e. 10,000 times higher.  
11 How quickly could the reserve generation at zero output be brought on-line and up  
12 to rated output?

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15 A. In practice the dispatch of generation would be such that adequate system reserve  
16 requirements would be maintained. The Pre-HVdc and Post-HVdc cases were  
17 developed on the basis that all dispatch-able generation is assumed to be available  
18 in response to a contingency.

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20 In the event of a contingency, online spinning reserves would provide an initial  
21 response to the loss of generation. Hydro's assumption is that all offline  
22 hydroelectric generators and thermal units could be started within ten minutes of  
23 an event and would reach rated capacity within an additional ten minutes. The only  
24 exception to this would be the Holyrood Gas Turbine, which would require 20  
25 minutes for synchronization and an additional 40 minutes to reach full output.