

1 Q. Have any of Hydro's studies identified any conditions where a curtailment of the ML
2 could be used to prevent under frequency load shedding, but penalties might be
3 payable? If so, please outline these circumstances. In the response please explain
4 how the time limited operation of the ML, i.e. the time that the MF power block is
5 being transmitted to Nova Scotia, is taken into account in Hydro's assessment.

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8 A. Studies to date have demonstrated that curtailment of the ML for LIL contingencies
9 assists in the prevention of under frequency load shedding on the Island
10 Interconnected System. The Energy and Capacity Agreement between Nalcor and
11 Emera permits curtailment of the ML, including the NS Block, in the transient sense
12 (during the event) for events on the LTA and LIL. The Agreement requires a
13 restoration of the NS Block on a prorated basis with the NL native load deliveries via
14 LIL following system operator adjustment of the Island Interconnected System
15 following the disturbance.

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17 In addition, given the capabilities of the ML converter technology and controls, the
18 manufacturer, ABB, has suggested the potential for the ML to assist in frequency
19 control for both the Island Interconnected System and the NS System purposes
20 during transient events. ABB intends to demonstrate this capability as part of its
21 frequency control study for ML integration. Of particular interest to the Island
22 Interconnected System would be the ability of the ML to assist with frequency
23 control at times when the LIL is either heavily loaded in monopolar or out of
24 service. It is anticipated that any frequency response that could be afforded to the
25 Island Interconnected System by the ML through frequency controls would be the
26 subject of negotiation between Nalcor and Emera should there be additional costs
27 associated with the service. Hydro awaits demonstration of the capability so that it

- 1 can be considered in the overall frequency response of the Island Interconnected
- 2 System and corresponding under frequency load shedding program.