

1 Q. There are different HVDC manufacturers for the Labrador Link and Maritime Link
2 converter stations. Each HVDC manufacturer will model their equipment and
3 perform studies to validate the performance of the converter station control and
4 protections in response to system disturbances in the high voltage network. Will
5 each manufacturer need to model their competitor's converter station equipment
6 to complete the validation studies? If yes, are agreements in place to provide these
7 models? If there are no agreements, how will each manufacturer complete their
8 validation studies?

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11 A. To ensure proper design and operation of the control systems for the Labrador –
12 Island HVdc Link (LIL) and the Maritime Link (ML), each vendor will need to model
13 the control system of the other vendor to complete the design and manufacture of
14 the equipment. To this end, there is an agreement in place that requires that the
15 ML integrate and operate successfully with the LIL design. To accomplish this goal,
16 Emera and Hydro are working together to develop a common set of study base
17 cases in PSS®E which will be used by both vendors in the design of the HVdc control
18 systems and future operational studies. The vendors will be using these cases as the
19 starting point for their respective PSCAD™ model developments and subsequent
20 PSS®E /PSCAD™ model validation studies. To ensure overall control stability during
21 the simultaneous operation of both HVdc links, agreements are in place which
22 require each vendor to provide a suitable model of their systems to both owners
23 (Emera and Nalcor) and the other vendor. The agreements ensure that the models
24 are compiled and masked in such a way that the trade secrets of each vendor are
25 protected, while providing access to the specific parameters that may need to be
26 adjusted during the study phases, to ensure acceptable performance and
27 interaction between the two HVdc links.