

1 Q. Further to the response to PUB-NLH-264, what is the impact of operating the
2 Labrador Island Link and the generation on the Island Interconnected System so
3 that there would be no need for load shedding as a consequence of a pole trip,
4 when operating in monopolar condition?

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7 A. The response to PUB-NLH-264 includes a preliminary analysis of a case with the
8 Labrador Island Link (LIL) in operation as a monopole. In this case, the system
9 dispatch is as follows:

- 10 • LIL monopole in service, 450 MW at Muskrat Falls.
- 11 • Island hydro units in service, maximum generation.
- 12 • Maritime Link (ML) in service, 182 MW at Bottom Brook (export).
- 13 • Hardwoods, Holyrood, and Stephenville Gas Turbines in service,
14 maximum generation.
- 15 • Three high-inertia synchronous condensers in service at Soldiers Pond.

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17 Reserve for the Island Interconnected Transmission System is available in Labrador
18 via the LIL in this case. In the event of a contingency involving the loss of generation
19 in Newfoundland, the response of the LIL is such that underfrequency load
20 shedding is not required and the export over the ML is not affected.

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22 The worst-case contingency with the LIL in monopolar mode is the loss of the LIL
23 monopole. For the case noted above, loss of the LIL monopole with 450 MW at
24 Muskrat Falls (396 MW delivered at Soldiers Pond) requires the curtailment of the
25 Maritime Link, as well as underfrequency load shedding.¹

¹ Underfrequency load shedding is permitted when the LIL is in operation as a monopole.

- 1 Mitigation strategies to avoid load shedding on the Island Interconnected System
- 2 when the LIL is operating in monopolar mode are discussed in Hydro's response to
- 3 PUB-NLH-482.