

1 Q. With respect to Exhibit 16, figure 7-3, please provide the justification and details
2 supporting the addition of two 50 MW CTs and the 170 MW CCCT in the generation
3 mix (years 2022, 2024 to 2027)?
4
5

6 A. With respect to Exhibit 16, figure 7-2, additional generation is required in 2022,
7 2024 and 2027 to avoid violating Hydro's planning criterion for capacity:
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9 **Capacity:** The Island Interconnected System should have sufficient capacity to
10 satisfy a Loss of Load hours (LOLH) expectation target of not more than 2.8 hours
11 per year.
12

13 To avoid violating Hydro's capacity criterion, Strategist selected the addition of two
14 50 MW CTs and the 170 MW CCCT in the generation mix (years 2022, 2024 to 2027)
15 as part of the least cost portfolio.
16

17 The LOLH is increasing (and additional generation required) in this case for two
18 reasons:
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20 (1) Normal load growth

21 (2) Retirement of the Hardwoods 50 MW CT and the end of the 15 MW Corner
22 Brook Co-gen PPA in 2022 and the retirement of the Stephenville 50 MW CT in
23 2024.
24

25 As well, without the addition of generating capability, the Island's firm energy
26 criterion would be violated in 2027.
27

- 1 **Energy:** The Island Interconnected System should have sufficient generating
- 2 capability to supply all of its firm energy requirements with firm system capability.
- 3
- 4 Please refer to the Energy Balance and LOLH Results sheet in MHI-Nalcor-13 for
- 5 further background information.