

1 Q. **Reference: *Engineering Support Services for: Avalon Capacity Study*, TransGrid Solutions, May**
2 **23, 2019, page 3, Footnote 8.**

3 *“With the LIL out of service, transmission losses will increase as a function of dispatch and the*
4 *location of incremental generation added to meet the capacity shortfall. Under peak load*
5 *conditions, Island demand can exceed 1900 MW with the LIL out of service.”*

6 Please provide the peak load forecast scenario in which Island demand exceeds 1900 MW with
7 the LIL out of service. In what year is this peak load observed?

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10 A. The Avalon Capacity Study was performed using a load flow case developed based on the P90
11 peak load forecast for 2028 with the Labrador-Island Link (“LIL”) bipole out of service. In this
12 case, the sum of customer load may be approximated as 1,775 MW. This includes customer
13 loads of approximately 1,490 MW for Newfoundland Power, 95 MW for Hydro Rural, and 190
14 MW for Island Industrial customers.

15 The sum of station service loads may be approximated as 15 MW and the total transmission line
16 losses may be approximated at 120 MW.¹ The total Island demand is therefore approximately
17 1,910 MW.

¹ Transmission system upgrades are required to meet peak load conditions when the LIL bipole is out of service. Transmission line losses will vary depending on whether upgrades include reactive support, new transmission lines, or new generation on the Avalon Peninsula. The values presented in this response are representative of a case where incremental reactive support is added at Sunnyside Terminal Station.