

1 **Q. Further to the responses to PUB-NP-052 and CA-NP 013, state whether the five**
2 **utilities that use statistical regression models to forecast peak demand are primarily**
3 **distribution utilities, transmission utilities or generation utilities or some**
4 **combination thereof. Does the type of utility and the purpose for which the forecast**
5 **is being used, such as capacity planning or energy growth, influence the selection of**
6 **the appropriate load forecasting methodology?**
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8 A. In 2021, Newfoundland Power surveyed 12 Canadian utilities to understand their peak
9 demand forecast methodologies. Of the 12 surveyed utilities, 6 use methodologies
10 similar to Newfoundland Power's load factor methodology. Five utilities use statistical
11 regression methodologies. One utility forecasts its capacity requirements on the
12 distribution level and used an alternate forecasting methodology.¹
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14 The 5 utilities that use statistical regression models are the primary bulk generation and
15 transmission utilities in their respective provinces. Four of these utilities are also the
16 primary distribution utility in their jurisdiction. Of the 6 utilities that use a methodology
17 similar to Newfoundland Power, 2 are the primary bulk generation, transmission, and
18 distribution utilities in their jurisdictions.²
19

20 Newfoundland Power observes that there are 2 primary methodologies used to forecast
21 peak demand for utilities in Canada. These are a statistical regression based approach
22 and a load factor based approach. The goal of each approach is to develop a reasonably
23 accurate forecast of peak demand. Since both methodologies are used by utilities that are
24 responsible for bulk generation, transmission, and distribution, it does not appear that the
25 methodology chosen by a utility is specific to the type of utility or the specific use of the
26 forecast.
27

28 Newfoundland Power develops its peak demand forecast primarily to estimate purchased
29 power costs. The Company does not develop its peak demand forecast for supply
30 planning purposes. Doing so would require adequate consideration of risk and the
31 potential range in peak demands that could be experienced in the forecast period.

¹ See response to Request for Information PUB-NP-052.

² The remaining 4 utilities include: (i) 2 transmission and distribution utilities with affiliated companies participating in the competitive electricity generation market in their jurisdiction; (ii) a relatively small size utility, in comparison to the size of its province's electrical system, with generation, transmission, and distribution interests; and (iii) a small transmission and distribution utility with limited generation interests and responsibility for supply planning within their province.