

1 **Q. Page 1, lines 18 to 24 of the Pre-filed Evidence of Messrs. Perry and Henderson**
2 **provides potential impacts of the Sample Rate on NP. Please provide the probability**
3 **of occurrence of these events, and compare the potential impacts to those that other**
4 **investor-owned distribution utilities face.**

5
6 A. Under the Sample Rate, there are four possible outcomes of forecast error (given
7 forecasts are never exactly correct):
8

- 9 (i) Energy requirement greater than forecast and Billing Demand greater than forecast;
10 (ii) Energy requirement greater than forecast and Billing Demand less than forecast;
11 (iii) Energy requirement less than forecast and Billing Demand less than forecast; and
12 (iv) Energy requirement less than forecast and Billing Demand greater than forecast.
13

14 Newfoundland Power believes there is an equal probability that the energy forecast will
15 be high or low. Newfoundland Power also believes that there is an equal probability that
16 the demand forecast will be high or low.
17

18 The probability of each of the four outcomes depends on the independence of the
19 accuracy of the energy forecast and the demand forecast. A review of annual changes in
20 Newfoundland Power's normal system peak demand compared to annual changes in
21 normal energy requirements (depicted in Chart 5 in the *Prefiled Evidence: Perry and*
22 *Henderson*) indicates no apparent relationship in annual peak demand and annual energy
23 requirements. This would lead to the expectation that the accuracy of the energy forecast
24 is independent of the accuracy of the demand forecast.
25

26 If the four possible outcomes are independent, there is a 25% chance that either outcome
27 can occur. Assigning a probability to the degree of forecast error for each outcome is
28 difficult to predict.
29

30 Newfoundland Power has not conducted a study on earnings risks of other investor-
31 owned distribution utilities.