

1 **Q. (Reference Application, 2023 – 2027 Capital Plan, page 1) It is stated “*System***
 2 ***load growth is expected to be modest with increases driven by residential***
 3 ***development in urban areas, government efforts to electrify provincial***
 4 ***buildings, and electric vehicle adoption.” How, and to what extent, will these***
 5 ***increases be offset by heat pump conversions, rate design and behind-the-***
 6 ***meter generation?***

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 8 A. Newfoundland Power’s customers have been installing heat pumps to reduce energy
 9 consumption associated with electric baseboard heating.¹ The Company’s load forecast
 10 includes energy reductions owing to customer heat pump adoption of 20 GWh in 2022
 11 and 2023. Customer load reductions associated with the continued adoption of heat
 12 pumps is forecast to be 12 GWh annually from 2024 to 2027 as the domestic heat pump
 13 market matures. This represents approximately 0.2% of the Company’s annual energy
 14 sales.²

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 16 The Net Metering Service Option provides Newfoundland Power customers with the
 17 ability to generate electricity to offset their own consumption. As of December 31,
 18 2021, Newfoundland Power has 21 customers with generation systems installed. The
 19 total amount of energy delivered to Newfoundland Power by these customers in 2021
 20 was 47,270 kWh. This represents approximately 0.0008% of Newfoundland Power’s
 21 annual energy sales.³ The extent to which customer generation is offsetting system
 22 load growth is minimal. The Company continues to monitor Net Metering Service Option
 23 participation and will adjust its load forecast should customer participation increase.

24
 25 Newfoundland Power is commencing a rate design review process in 2022 to assess the
 26 appropriateness of retail rates following the completion of the Muskrat Falls Project and
 27 the finalization of the Provincial Government’s rate mitigation plan. The extent to which
 28 rate design will impact Newfoundland Power’s system load growth cannot be reasonably
 29 estimated until these matters are concluded and the rate design review is complete.

¹ Newfoundland Power estimates that in 2015, approximately 13,700 of its Domestic customers had a heat pump installed. In 2021, approximately 48,400 Newfoundland Power customers were estimated to have a heat pump installed.

² Newfoundland Power’s weather adjusted energy sales in 2021 were 5,715.0 GWh (12.0 GWh ÷ 5,715.0 GWh = 0.002).

³ Newfoundland Power’s weather adjusted energy sales in 2021 were 5,715.0 GWh (0.04727 GWh ÷ 5,715 GWh = 0.000008).