Q. Further to the response to PUB-NP-103, has Newfoundland Power reviewed its methodology to determine the elasticity effects on sales due to rate increases since it was introduced in 1998? Please explain how Newfoundland Power's methodology remains relevant and appropriate in the current and near future environment of increased electrification initiatives and potential significant customer rate increases.

A. A. Newfoundland Power's Elasticity Assumptions

Price elasticity of electricity on the Island Interconnected System was considered thoroughly as part of the Muskrat Falls Inquiry. It included testimony from a panel of experts and industry professionals from Newfoundland Power, Newfoundland and Labrador Hydro ("Hydro"), and the Consumer Advocate. The panel of experts and industry professionals were unanimous regarding the existence of price elasticity as it relates to electricity consumption on the Island Interconnected System and in the context of potential price increases related to the Muskrat Falls Project.

The elasticity of demand used by Newfoundland Power in the *2025/2026 General Rate Application* is -0.19. This implies that a 1% increase in the price of electricity will result in a 0.19% decrease in electricity consumption. The elasticity of demand offered by the panel of experts and industry professionals in the Muskrat Falls Inquiry were higher, ranging from -0.3 to -0.7.[1] This implies that customers will reply more strongly to changes in the price of electricity than what Newfoundland Power forecasts in its 2025 and 2026 test year. If Newfoundland Power were to adopt these estimates, its energy forecast for the 2025 and 2026 test years would decline.

Hydro's econometric load forecast model for estimating residential energy consumption provides an elasticity of demand of between -0.25 and -0.35. Current year modelling for Hydro indicates elasticity of demand of -0.30. Hydro also estimates price elasticity as it relates to its peak demand forecast for Newfoundland Power. Its regression model relating to Newfoundland Power's system peak demand estimates price elasticity to be -0.20.[2] This is consistent with the impact of price on Newfoundland Power's peak demand forecast.[3]

B. Newfoundland Power's Methodology

Newfoundland Power's methodology to determine the elasticity effects on the Company's energy sales involves regression analyses used to forecast energy usage for the Domestic and General Service Rate #2.1 customers. The regression analysis effectively determines the impact of price and other variables on Newfoundland Power's energy sales.

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1 See the response to Request for Information PUB-NP-103 page 5, lines 4-23.

2 See the response to Request for Information PUB-NLH-008.

3 Newfoundland Power's peak demand forecast is based on a five-year average system load factor. Changes in energy sales are applied to the Company's average system load factor to determine peak demand. Since Newfoundland Power's energy sales include an elasticity of -0.19, changes in Newfoundland Power's peak demand forecast due to price are similar to that of Hydro.

Similar to Newfoundland Power's approach, Hydro also uses regression techniques to estimate the impact of price on customer electricity consumption.[4] Evidence filed by the Consumer Advocate as part of the Muskrat Falls Inquiry also used regression techniques to determine elasticity of demand.[5] The methodology employed by Newfoundland Power to determine price elasticity is therefore consistent with the methodologies used by other parties to assess price elasticity on the Island Interconnected System.

The Company's elasticity methodology uses historic electricity rates charged to Newfoundland Power's customers. The historical data series includes annual price changes within the range of ±10%. Newfoundland Power's electricity price forecast used to forecast energy sales in the *2025/2026 General Rate Application* includes forecast rate increases within this 10% threshold.[6] As a result, Newfoundland Power is not attempting to estimate the impact of electricity rate increases that are not already reflected in this historic data used to determine the elasticity impact.

C. Electrification

Electrification trends were a contributing factor to Newfoundland Power's energy sales growth in 2022 and 2023. Newfoundland Power has specifically included additional load related to electrification in its energy forecast. This includes continued customer conversions from oil to electric space heating, the adoption of electric vehicles, the conversion of government buildings from oil to electric heating, and the addition of electric boilers at Memorial University.[7]

While Newfoundland Power's electricity sales have increased in the past two years, in part due to electrification, it is logical to conclude that customers will continue to respond to increases in electricity rates by seeking ways to reduce energy consumption.[8] To conclude otherwise would imply that customers will no longer respond to increases in the price of electricity by seeking ways to reduce consumption. It would also be contrary to the testimony made by the panel of experts and industry professionals at the Muskrat Falls Inquiry.

D. Conclusion

In Newfoundland Power's view, the Company's methodology to determine elasticity effects on energy sales due to customer rate increases remains relevant and does not require review. The existence of price elasticity as it relates to Newfoundland Power's energy sales was unanimous by a panel of experts and industry professionals at the Muskrat Falls Inquiry. Newfoundland Power uses a regression methodology similar to

4 See the response to Request for Information PUB-NLH-008.
5 See Attachment A to the response to Request for Information CA-NP-076.
6 See the response to Request for Information PUB-NP-103, footnote 17.
7 See the responses to Request for Information PUB-NP-091 and PUB-NP-097.
8 This includes customers partaking in electrification activities. For example, a customer who switched from oil to electric heating in 2022 may seek opportunities to reduce electricity consumption in future years in response to increases in electricity rates. This could include installing additional insulation, dialing back thermostats, using less hot water, etc.

that used by Hydro and evidence filed by the Consumer Advocate. Furthermore, the results used by Newfoundland Power are reasonable, if not conservative, in comparison to results referenced in the Muskrat Falls Inquiry and currently used by Hydro.