Q. On page 1 of 25, line 9, Newfoundland Power states that the NPV analysis confirms that the planned electrification programs will provide rate mitigating benefits to customers over the long term. Please expand on this statement, and if possible provide the impact on rates in the short term, particularly for the period 2021 and 2025.

A. Newfoundland Power assessed the rate mitigating benefit of its customer electrification initiatives through a net present value ("NPV") analysis. The NPV analysis assessed the net revenue impact of increased energy sales through customer electrification to 2034.[1] The net revenue impact was then divided by projected Company energy sales, including energy sales from electrification, to determine an indicative customer rate impact.

Table 1 provides the *pro forma* annual net revenues and customer rate impacts of Newfoundland Power's customer electrification initiatives over the period 2021 to 2034.

Table 1:
Newfoundland Power
***Pro Forma* Net Revenues and Customer Rate Impacts**

Year	Net Revenues ($000s)[2]	Rate Benefit (¢/kWh)
2021	(133)	(0.002)
2022	(519)	(0.009)
2023	(899)	(0.016)
2024	(1,135)	(0.020)
2025	(1,037)	(0.018)
2026	123	0.002
2027	2,487	0.042
2028	5,202	0.087
2029	7,919	0.131
2030	11,747	0.192
2031	16,197	0.261
2032	21,425	0.340
2033	27,284	0.426
2034	33,894	0.519

[1] The NPV analysis included program costs and capital investments in infrastructure. Net revenue was calculated as: (i) the incremental revenue from increased electricity sales through customer electrification; less (ii) incremental system costs and the recovery of capital, program and research costs related to customer electrification. For a copy of the NPV analysis, see the *2021 Electrification, Conservation and Demand Management Application,* Volume 1, Exhibit 2, Appendix A.

[2] See the *2021 Electrification, Conservation and Demand Management Application,* Volume 1, Exhibit 2, Appendix A, Column G.

The rate mitigating benefit of customer electrification initiatives will be realized over the longer term, primarily through transportation electrification.

Over the short term, utility intervention is required to address barriers to electrification. Utility investment in fast charging infrastructure is required to address barriers associated with electric vehicle ("EV") range anxiety. Customer incentives are required to address up-front cost barriers until EVs achieve price parity with gasoline-powered vehicles. Initiatives are also required to educate customers on the benefits of EVs.

Addressing these barriers over the short term will accelerate customers' adoption of EVs over the longer term.[3]

Newfoundland Power's NPV analysis shows that customer electrification initiatives will provide additional net revenue of approximately $123 million over the period 2021 to 2034. Increased net revenue through electrification will provide a rate mitigating benefit for customers of approximately 0.5¢/kWh by 2034.[4]

Additionally, the market potential study completed by Dunsky Energy Consulting shows that system costs will increase without utility intervention.[5] This is largely due to an increase in capacity-related system costs resulting from the unmanaged charging of EVs. Increased system costs would put upwards pressure on customer rates and would be inconsistent with provincial rate mitigation objectives.

[3] Without utility intervention, there are forecast to be approximately 41,000 EVs in Newfoundland and Labrador by 2034. This is forecast to increase to approximately 140,000 EVs by 2034 assuming identified barriers are effectively addressed by the utilities.

[4] The customer rate impact of 0.5 cents/kWh was determined by dividing the net revenue impact of $33.9 million in 2034 by the projected Company energy sales, including energy sales from electrification, of 6,527 GWh.

[5] See the *2021 Electrification, Conservation and Demand Management Application,* Volume 1, Exhibit 2, page 2, Figure 1.