

**Section 2: Customer Operations/Capital Expenditures**

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3 **Q. a) Please provide updated information on actual and forecast Electric Vehicle**  
4 **adoption in Newfoundland Power’s service area.**
- 5 **b) Please provide an update on the electric vehicle load management pilot project.**
- 6 **c) Please provide updated information on EV charging station availability in**  
7 **Newfoundland Power’s service area. In the response, please identify level 2 and**  
8 **level 3 chargers separately.**
- 9 **d) Does Newfoundland Power have any plans with respect to any additional utility-**  
10 **owned charging stations over the next 5 years?**
- 11 **e) Please provide usage data with respect to the existing level three charging**  
12 **stations in Newfoundland Power’s service area, including the number of**  
13 **chargers, load factor, kWh’s used and revenue.**
- 14 **f) Does Newfoundland Power plan on offering customer rebates to promote the**  
15 **installation of smart-charging stations? If yes, please provide details.**
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- 17 **A. a) Data compiled by the Newfoundland and Labrador Statistics Agency, based on**  
18 **information provided by the provincial Motor Registration Division, shows that there**  
19 **were 1,241 fully electric vehicles (“BEVs”) registered in Newfoundland and**  
20 **Labrador as of December 31, 2023.<sup>1</sup> The number of hybrid vehicles reported by the**  
21 **provincial Motor Registration Division includes plug-in hybrid electric vehicles**  
22 **(“PHEVs”) and also conventional hybrid vehicles, but does not report on how many**  
23 **of each type are registered. In total there were 2,722 hybrid vehicles registered in**  
24 **Newfoundland and Labrador as of December 31, 2023.<sup>2</sup>**
- 25
- 26 Newfoundland Power’s current forecast of electric vehicle (“EV”) adoption is based  
27 on information provided by Dunskey Energy + Climate Advisors for Newfoundland  
28 and Labrador Hydro’s (“Hydro”) *Resource and Reliability Adequacy Study 2022*  
29 *Update* (“RRAS”). Newfoundland Power uses the “low scenario” for its forecast as  
30 this scenario most closely aligns with current market drivers and conditions for EV  
31 adoption.

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<sup>1</sup> See Newfoundland and Labrador Statistics Agency. *Registered Active Passenger Vehicles by Selected Fuel Type*. Retrieved February 19, 2024 from [https://www.stats.gov.nl.ca/Statistics/Topics/transportation/PDF/Hybrid\\_Electric\\_Quarterly\\_NL.pdf](https://www.stats.gov.nl.ca/Statistics/Topics/transportation/PDF/Hybrid_Electric_Quarterly_NL.pdf)

<sup>2</sup> Ibid.

1 Table 1 outlines the cumulative vehicle forecast from this model for the years 2023 to  
 2 2028 by vehicle type.<sup>3</sup>

**Table 1:  
 Forecast Electric Vehicle Adoption by Type and Year  
 Island of Newfoundland  
 Cumulative Vehicle Sales**

Year	Commercial Light-Duty Vehicles	Passenger Light-Duty Vehicles	Bus	Heavy- Duty Vehicles	Medium- Duty Vehicles	Total
2023	104	839	4	1	40	988
2024	152	1,216	7	1	72	1,448
2025	220	1,760	11	3	116	2,110
2026	311	2,489	17	5	185	3,007
2027	442	3,542	26	10	279	4,299
2028	635	5,088	39	16	419	6,197

3 b) The *EV Load Management Pilot* (the “Pilot”) launched in the third quarter of 2023  
 4 with the release of a request for proposal for a program implementor and a program  
 5 evaluator. AutoGrid was selected as the program implementor and Guidehouse as the  
 6 program evaluator.

7  
 8 The Pilot will test both active (i.e. opt-out) and passive (i.e. opt-in) load management  
 9 strategies to gauge the effectiveness of each in shifting EV load to off-peak periods.  
 10 Customers that sign up for the Pilot are assigned to one of three groups: an active load  
 11 management group,<sup>4</sup> a passive load management group,<sup>5</sup> and a control group.<sup>6</sup>

12  
 13 While recruitment is currently ongoing, Newfoundland Power has recruited  
 14 customers into all three groups. Data collection and demand response events have  
 15 begun and will continue throughout 2024 and into 2025.<sup>7</sup> The Pilot will conclude in  
 16 the second quarter of 2025 with the delivery of a final report. No changes from the  
 17 budget estimate of \$1.5 million to complete the Pilot are anticipated at this time.

18 c) There are 117 charging stations listed by Transport Canada in Newfoundland and  
 19 Labrador. These stations offer 182 charging ports. In Newfoundland Power’s service

<sup>3</sup> The Dunsky model provided to Newfoundland Power does not break down vehicle adoption between BEVs and PHEVs. The report in the RRAS indicates adoption of BEVs and PHEVs to be close to even in the first few years of the low scenario.

<sup>4</sup> These participants provide the ability for Newfoundland Power to control their charging during demand response events. Participants are able to opt-out of events.

<sup>5</sup> These participants are incented not to charge during specified peak times, but control their own charging.

<sup>6</sup> The charging habits of these customers will be monitored without intervention.

<sup>7</sup> There may be times where it is beneficial to manage EV load outside of the winter season, such as during maintenance on the electricity system. The value of year-round demand response was indicated in Hydro’s application for an updated capacity assistance agreement with Corner Brook Pulp and Paper. The agreement included a provision for capacity assistance in the summer. This application was approved by the Board in Order P.U. 32 (2023).

1 area, it is estimated there are 94 stations with 159 charging ports, with 137 ports  
2 offering level 2 charging and 22 offering level 3 charging.<sup>8</sup>  
3

4 d) Newfoundland Power does not currently have any plans with respect to any additional  
5 utility-owned charging stations over the next five years.<sup>9</sup> Electrification is a focus  
6 area of the ongoing study discussed in part f). Newfoundland Power will assess the  
7 results of that study, along with the findings of the Pilot, to evaluate further  
8 investment in Company-owned charging stations.

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<sup>8</sup> See Transport Canada. *Zero-emission vehicle charging stations*. Retrieved February 19, 2024 from <https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/zero-emission-vehicle-charging-stations#/find/nearest?country=CA>

<sup>9</sup> The Company continues to assess funding opportunities associated with EV charging stations which could potentially provide an opportunity for Company-owned charging stations within this time period.

- 1 e) Table 2 provides the data from the existing level 3 charging stations owned and  
 2 operated by Newfoundland Power, including the number of chargers, load factor,  
 3 kWhs used and revenue.<sup>10</sup>

**Table 2:**  
**Newfoundland Power Owned and Operated Level 3 Charging Stations**  
**Lifetime Usage Data**  
**(As of February 15, 2024)**

Location	Number of Level 3 Charging Ports	Load Factor (%)	kWhs Used	Revenue (\$) <sup>11</sup>
Bonavista	1	0.51%	4,524	1,443
Carbonear	1	1.20%	10,436	3,399
Fermeuse	1	0.17%	1,490	568
Lewisporte	1	1.71%	14,727	4,575
Marystown	1	1.06%	9,149	3,012
Paradise	1	5.05%	50,110	16,849
Port Rexton	1	0.93%	8,258	2,683
Robinsons	1	0.77%	6,757	2,098
St. Mary's	1	0.08%	640	213
Trepassey	1	0.07%	597	205
<b>Total</b>	<b>10</b>		<b>106,688</b>	<b>\$35,045</b>

- 4 f) Newfoundland Power and Hydro have engaged Posterity Group, an economic and  
 5 engineering consulting firm, to conduct a potential study that will examine  
 6 opportunities for electrification, demand response, and energy efficiency for the  
 7 Island Interconnected System. The findings, which are anticipated to be finished in  
 8 the third quarter of 2024, along with the results of the Pilot, will inform the initiatives  
 9 and programs that are included in the utilities' next multi-year plan, which is due to  
 10 commence in 2026.

<sup>10</sup> Hydro also owns and operates level 3 charging stations in Newfoundland Power's service territory, but Newfoundland Power does not have access to the detailed data for these stations outside of normal metering data.

<sup>11</sup> Revenue is calculated based on the time the vehicle is plugged into the charger and not the energy dispensed. The current rate at both Newfoundland Power and Hydro owned and operated chargers is \$15.00 per hour for level 3 charging.