

1 Q. Further to PUB-NLH-046 please provide the net present value analysis and the estimated rate
2 mitigation benefit for the proposed electrification program, including all components except
3 incentives for EV purchases.

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6 A. *This Request for Information relates to the Electrification, Conservation and Demand*
7 *Management Plan 2021–2025 (“2021 Plan”) developed in partnership by Newfoundland and*
8 *Labrador Hydro (“Hydro”) and Newfoundland Power Inc. (“Newfoundland Power”) (collectively,*
9 *the “Utilities”) and the related Technical Conference presented by the Utilities on February 1,*
10 *2022. Accordingly, the response reflects collaboration between the Utilities.*

11 The 2021 Plan seeks to maximize domestic energy usage in a cost-effective manner primarily
12 through increasing the province’s adoption of electric vehicles (“EV”). In the Utilities’
13 experience, promoting the adoption of new technologies requires understanding barriers to
14 customers’ adoption of those technologies and strategically addressing those barriers.

15 Each initiative in the 2021 Plan is designed to address a specific barrier to customers’ adoption
16 of EVs. Over the last four years, Newfoundland and Labrador residents have consistently
17 indicated the primary barriers to EV adoption are the upfront cost and access to public charging.
18 In three of the four years, the upfront cost of an EV was the primary barrier identified.¹ For
19 example, in 2020, 32% of residents ranked the upfront cost of an EV as the primary barrier,
20 while 24% of residents ranked the availability of public charging as the primary barrier.

21 The 2021 Plan strategically addresses these barriers through (i) customer incentive programs for
22 EVs and chargers, and (ii) utility investment in public charging infrastructure and a make-ready
23 model to encourage private sector investment. These initiatives represent the primary levers
24 available to the Utilities to increase EV adoption. These initiatives are designed to be

¹ Please refer to Table 2 within Hydro’s response to TC-CA-NLH-039, which shows the most indicated reason a customer has not purchased an EV over the 2018–2021 period.

1 complementary in supporting customers’ adoption of EVs.² Both initiatives are essential to
2 achieving market transformation within the province’s transportation sector.

3 As outlined in Newfoundland Power’s response to PUB-NP-064, the interdependent nature of
4 these initiatives limits the Utilities’ ability to calculate the rate mitigation impacts separately for
5 each initiative. However, the findings of the market potential study (“Study”) completed by
6 Dunsy Energy Consulting indicated that EV incentives could increase EV load by 16% to 32% in
7 the short-term and by 8% to 9% over the long term.³

8 Based on this, and the analysis prepared by Newfoundland Power in their response to TC-PUB-
9 NP-001, an 8% decrease in Hydro’s forecast cumulative NPV by 2034 equates to a reduction of
10 approximately \$0.3 million to \$2.9 million versus the analysis as presented in Hydro’s response
11 to TC-PUB-NLH-004, Attachment 1.

² For example, the Utilities plan to offer an incentive program for residential customers to purchase an EV, as well as an incentive to purchase a smart charger capable of load management. The Utilities intend to communicate with customers about both incentives during their decision-making process, which may promote higher uptake of smart chargers. This is critical as once a customer installs a standard charger, they would be unlikely to subsequently upgrade to a smart charger.

³ Please refer to "Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025," Newfoundland and Labrador Hydro, rev. July 8, 2021 (originally filed June 16, 2021), sch. 3, sch. C, p. 139 of 325.