

1 Q. When estimating the impacts and benefits of the electrification program, are impacts such as
2 the 0.5 cents/kWh rate mitigation effect based on the electrification applications that are now
3 before the Board, or do they include any additional electrification initiatives performed by
4 Hydro that will be the subject of future applications?

5 (a) What is assumed with respect to the baseline scenario; i.e., does it reflect the scenario
6 where the Board does not approve the proposed electrification program?

7 (b) Further, in the baseline scenario is Hydro assumed to continue to provide household service
8 entrance upgrades needed to support EV charging, generation, transmission and
9 distribution system upgrades needed to support EV charging, load management/rate design
10 to manage EV charging impacts on capital and O&M costs while ensuring rates are fair and
11 cost reflective, and customer education relating to use of electricity including EV charger
12 use?

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15 A. *This Request for Information relates to the Electrification, Conservation and Demand*
16 *Management Plan 2021–2025 (“2021 Plan”) developed in partnership by Newfoundland and*
17 *Labrador Hydro (“Hydro”) and Newfoundland Power Inc. (“Newfoundland Power”) (collectively,*
18 *the “Utilities”) and the related Technical Conference presented by the Utilities on February 1,*
19 *2022. Accordingly, the response reflects collaboration between the Utilities.*

20 The customer rate mitigating benefit of 0.5¢/kWh in 2034 is based on the additional net
21 revenues associated with electrification initiatives included in the 2021 Plan.¹

¹ The customer benefits of electrification programs are assessed through the modified Total Resource Cost (“mTRC”) test and a net present value (“NPV”) analysis. The mTRC test ensures programs are sufficiently economic to enable customer participation. The NPV analysis assesses the rate mitigating benefit to be provided to all ratepayers. Please refer to Hydro’s response to TC-CA-NLH-002 for more information.

1 Following 2025, program costs included in net present value (“NPV”) analysis are related to
2 costs associated with future load management programs.² It is expected that future load
3 management programs associated with electric vehicle (“EV”) charging would be assessed using
4 the Program Administrator Cost test approved by the Board of Commissioners of Public Utilities
5 for Conservation and Demand Management (“CDM”) programs. This is consistent with Dunsky
6 Energy Consulting’s approach to assessing the cost-effectiveness of demand response programs
7 in their market potential study (“Study”).³ Ultimately, the assessment used will depend on the
8 EV load management initiative that is implemented.

9 Please refer to Hydro’s response to PUB-NLH-006 for further information.

10 (a) The Study projects approximately 41,000 EVs in the province by 2034 under its baseline
11 scenario. The baseline scenario forecasts EV adoption assuming no electrification incentives
12 and no additional charging infrastructure beyond current levels.⁴ Please refer to part (a) of
13 Hydro’s response to TC-CA-NLH-017 for further information.

14 (b) Incremental generation, transmission, and distribution system costs related to EV charging,
15 including the impact on local distribution assets, are included in the baseline scenario.

16 The Study assessed the impacts of both unmanaged and managed charging of EV load under
17 the baseline scenario.⁵ The unmanaged charging baseline scenario reflects no utility
18 intervention.⁶

² "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. 1, app. A for the NPV analysis.

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. E, p. 10 of 25.

⁴ 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. 131 of 325. Current levels in the market potential study included the 14 Level 3 fast chargers installed by Hydro across the province.

⁵ 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, pp. 11–12.

⁶ For example, the baseline scenario shown in "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, s 5.0, fig. 6, p. 27 reflects the unmanaged EV load scenario (i.e., without utility intervention).

- 1 Customer education to help inform customer decisions regarding electrification will occur
- 2 under baseline conditions.