

1 **Q. Reference slide 8**

2 a) Please explain the statement that unmanaged EV charging results in a negative NPV of \$22  
3 million.

4 b) If the Board were not to approve the proposed electrification program, would there be no  
5 options available to Hydro to manage EV charging and avoid additional capacity costs owing  
6 to EV charger demand?

7 c) Does management of electricity demand fall under Hydro’s responsibility with or without  
8 approval of the electrification program?

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

16 a) Under baseline conditions (i.e., without utility intervention), the market potential study  
17 completed by Dunsky Energy Consulting (“Study”) projects approximately 41,000 electric  
18 vehicles (“EV”) in the province by 2034.<sup>1</sup> The Study shows that system costs will increase  
19 without utility intervention, largely due to an increase in capacity-related system costs  
20 resulting from the unmanaged charging of EVs. This increase in system costs, net of

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<sup>1</sup> The baseline scenario forecasted EV adoption assuming no incentives and no installed charging infrastructure beyond current levels. 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, at p. 97 of 325. Current levels in the Study included the 14 Level 3 fast chargers installed by Hydro across the province.

1 additional revenues from electrification, is estimated to result in a negative net present  
2 value (“NPV”) of approximately \$22 million in 2034.<sup>2</sup>

3 b) The 2021 Plan lays the foundation for effective load management consistent with the  
4 recommendations of the Study. This includes incentivizing the purchase of EV chargers  
5 capable of load management, piloting options for load management, and assessing options  
6 to manage the load of commercial vehicles.

7 If the electrification initiatives in the 2021 Plan did not proceed, the Utilities would be  
8 limited in their ability to implement effective load management initiatives prior to EV  
9 adoption driving significant increases in system load.<sup>3</sup> For example, a customer would have  
10 no financial incentive to purchase and install a costlier network capable EV charger required  
11 to participate in effective load management initiatives. This scenario would limit customer  
12 participation in future EV load management programs and may result in higher capacity-  
13 related system costs for customers.

14 Please refer to Hydro’s response to PUB-NLH-006 for further information on the load  
15 management initiatives included in the 2021 Plan.

16 c) Yes, the provincial power policy requires, in effect, that customers be provided with reliable  
17 service at the lowest possible cost.<sup>4</sup> This includes management of system load and  
18 associated costs. This requirement would continue to apply if the Board of Commissioners  
19 of Public Utilities (“Board”) did not approve the electrification initiatives outlined in the  
20 2021 Plan.

21 The electrification initiatives in the 2021 Plan will help maximize domestic load while  
22 providing for the assessment and implementation of effective EV load management

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<sup>2</sup> The negative NPV of approximately \$22 million in 2034 reflects incremental revenues from electrification of approximately \$41 million, net of incremental energy supply costs of approximately \$17 million and incremental capacity costs of approximately \$46 million (\$41 million - \$17 million – \$46 million = -\$22 million).

<sup>3</sup> The Utilities have proposed the approval of the modified Total Resource Cost test to evaluate the cost effectiveness of electrification programs. The approval of an economic test, rather than specific programs, allows the Utilities to adapt to changing market conditions while ensuring programs remain cost effective for customers. This is consistent with the Utilities’ longstanding approach to delivering Conservation and Demand Management programs. For more information, please refer to Hydro’s response to TC-CA-NLH-002.

<sup>4</sup> Please refer to *Electrical Power Control Act, 1994*, SNL 1994, c E-5.1, s 3(b).

1            programs. In the Utilities’ view, the 2021 Plan provides the best outcomes for customers  
2            through lower electricity rates over the long term and is therefore consistent with the  
3            Utilities’ requirement to provide reliable service at the lowest possible cost.<sup>5</sup> The  
4            electrification initiatives in the 2021 Plan are also consistent with the Board’s findings as  
5            part of the *Rate Mitigation Options and Impacts Reference* proceeding.<sup>6</sup>

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<sup>5</sup> Please refer to Hydro’s response to CA-NLH-022, for further information.

<sup>6</sup> Please refer to Hydro’s response to TC-CA-NLH-001 for further information.