

1 **Q. (Reference Application)**
2

- 3 **a) How do customers benefit from this partnership between Hydro and**
4 **Newfoundland Power with respect to construction, ownership and operation of**
5 **charging station infrastructure over the private sector, if Government, Hydro or**
6 **Newfoundland Power provide incentives such as low interest loans, capital**
7 **contributions, etc. to promote private sector participation?**
8
- 9 **b) Would this approach be similar to the approach followed for CDM programs?**
10
- 11 **c) Does Newfoundland Power construct, own and operate infrastructure in any of**
12 **its CDM programs? If so, please provide details.**
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14 A. *This Request for Information relates to the Electrification, Conservation and Demand*
15 *Management Plan: 2021-2025 (the “2021 Plan”) developed in partnership by*
16 *Newfoundland Power and Newfoundland and Labrador Hydro (“Hydro” or, collectively,*
17 *the “Utilities”). Accordingly, the response reflects collaboration between the Utilities.*
18

- 19 a) Investment in electric vehicle (“EV”) charging infrastructure by the Utilities is
20 necessary to enable the successful delivery of customer electrification programs
21 contained in the *Electrification, Conservation and Demand Management Plan: 2021-*
22 *2025 (the “2021 Plan”).*¹ The electrification programs contained in the 2021 Plan
23 will provide a rate mitigating benefit for the Utilities’ customers over the longer
24 term.² This rate mitigating benefit is consistent with the least cost delivery of reliable
25 service to customers.

26
27 The 2020-2034 Potential Study (the “Study”) conducted by Dunsky Energy
28 Consulting addressed the appropriateness of utility intervention in transportation
29 electrification. The Study found that private sector investment in fast charging
30 infrastructure is currently constrained by a weak business case. The weak business
31 case reflects both the cost of charging infrastructure and the relatively small number
32 of EVs in the province. Without investment in adequate charging infrastructure,
33 customers’ adoption of EVs will be limited, thus limiting the associated rate
34 mitigating benefits for customers.³

¹ In a 2019 survey completed by MQO, Newfoundland and Labrador residents ranked access to charging and concerns about reliability of range among the highest barriers to EV ownership. Access to fast charging infrastructure is limited in Newfoundland and Labrador and lags behind that of other Canadian provinces.

² For example, increased net revenue through electrification is forecast to provide a rate mitigating benefit for customers of 0.5¢/kWh by 2034. This equates to \$100 in reduced electricity charges that year for an average residential customer with electric heating. See the *2021 Electrification, Conservation and Demand Management Application*, Volume 1, Exhibit 2, page 3.

³ The Study states: “Because the LDV market is severely constrained by the lack of public charging infrastructure, investments in DCFC will be the most impactful and cost-effective lever. The current lack of a solid business case for DCFC charging stations for third-party market actors suggests that DCFC deployment in the province will be limited in the absence of utility or government intervention.” See the *2021 Electrification, Conservation and Demand Management Application*, Volume 2, Schedule C, page 145 of 325.

1 The 2021 Plan encourages private sector investment in EV charging infrastructure
2 through appropriate incentives. Specifically, the 2021 Plan includes a make-ready
3 investment model to encourage private sector investment in EV charging
4 infrastructure. The make-ready model includes the installation of electrical
5 infrastructure to enable private sector entities to purchase and install fast chargers.
6 The costs to get a site ready for charger installation are typically a large percentage of
7 the capital required for an installation, at approximately 30% to 40%. This model
8 lowers upfront capital costs which, in turn, improves the business case for private
9 sector entities when installing, owning and operating EV charging stations.⁴ In North
10 American jurisdictions that are pursuing transportation electrification, it is
11 commonplace to see a combination of a make-ready model and a utility investment
12 model.⁵

13
14 Even with sizable incentives, participation in the make-ready model is expected to be
15 limited. This reflects the weak business case for private sector investment in EV
16 charging infrastructure. The business case for private sector investment is expected
17 to improve as EV adoption increases. The 2021 Plan will increase EV adoption in the
18 province, thereby improving the business case for future private sector investment in
19 EV charging infrastructure. The Utilities do not currently plan to install EV charging
20 infrastructure beyond what is outlined in the 2021 Plan.

21
22 Additionally, the Utilities are coordinating in the installation of EV charging
23 infrastructure throughout the province. Coordination between the Utilities will
24 optimize the number and location of charging stations in the province.⁶ Optimizing
25 the number and location of charging stations will support achieving the associated
26 rate mitigating benefits for customers and avoid additional infrastructure upgrades on
27 the electrical system.⁷ Relying solely on private sector investment would pose risks
28 that the charging infrastructure would be insufficient or too sporadically located to
29 adequately address this barrier to EV adoption. This, in turn, would create risks that
30 the associated rate mitigating benefits would not be achieved for customers.

31
32 For additional information on how customers benefit from the Utilities' coordinated
33 approach to installing charging infrastructure, see response to Request for
34 Information CA-NP-045.

35
36 b) Yes, this approach would be similar to the approach followed by CDM programs.
37 Conservation and demand management ("CDM") programs have been delivered
38 jointly by the Utilities under the takeCHARGE partnership since 2009.

⁴ See the *2021 Electrification, Conservation and Demand Management Application*, Volume 2, 2021 Plan, pages 14 to 15.

⁵ See the *2021 Electrification, Conservation and Demand Management Application*, Volume 2, 2021 Plan, Schedule B.

⁶ See response to Request for Information PUB-NP-046.

⁷ The Study states: "Additionally, utility deployment of charging infrastructure would also lead to benefits from optimizing station placement within the distribution system to avoid infrastructure upgrades." See the *2021 Electrification, Conservation and Demand Management Application*, Volume 2, Schedule C, page 145 of 325.

1 All programs implemented since 2009 have been responsive to customers'
2 expectations and consistent with the provision of least cost, reliable service. Over
3 60,000 customers have participated in programs since 2009. These customers have
4 saved approximately \$131 million on their electricity bills. System costs have been
5 reduced by approximately \$142 million since 2009 as a result of these programs.
6

7 These results have been achieved by strategically removing barriers to energy
8 conservation in Newfoundland and Labrador. Incentives have addressed customer
9 cost barriers. Education initiatives have addressed gaps in customer awareness and
10 knowledge. By addressing barriers, the Utilities have supported market
11 transformation for products such as energy-efficient windows.
12

13 The 2021 Plan is consistent with the Utilities' long-term history of delivering
14 customer programs.
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16 c) Generally, Newfoundland Power does not construct, own or operate infrastructure as
17 part of its CDM programs. Energy conservation measures that are installed in
18 customer homes and businesses, such as insulation and lighting, are purchased and
19 owned by the customer. However, in some instances Newfoundland Power does own
20 and operate infrastructure related to CDM, such as its customer energy conservation
21 website.⁸

⁸ See the *2021 Capital Budget Application* – Volume 1, Schedule B, page 80 of 98.