2 electric vehicles have been dealt with by the various utilities boards in these jurisdictions: (a) Nova Scotia 3 4 (b) Prince Edward Island (c) New Brunswick 5 (d) Quebec 6 (e) Ontario 7 (f) Manitoba 8 9 (g) Saskatchewan 10 (h) Alberta (i) British Columbia 11 12 13

What research has Hydro undertaken to determine how electric chargers and the uptake in

1

Q.

14A.This Request for Information relates to the Electrification, Conservation and Demand15Management Plan 2021–2025 ("2021 Plan") developed in partnership by Newfoundland and16Labrador Hydro ("Hydro") and Newfoundland Power Inc. ("Newfoundland Power") (collectively,17the "Utilities") and the related Technical Conference presented by the Utilities on February 1,182022. Accordingly, the response reflects collaboration between the Utilities.

## 1 A. Introduction

Electric vehicles ("EV") are a rapidly emerging technology globally. In the Utilities' view, given
the emerging nature of the technology, it is appropriate for the Board of Commissioners of
Public Utilities ("Board") to consider not only the experience in Canadian jurisdictions but North
American jurisdictions more broadly.

- 6 A February 2021 report from the Edison Electric Institute found that "Electric companies 7 increasingly are engaged in many different facets of electric transportation."<sup>1</sup> A more recent 8 report found that the number of utilities having regulatory approval for filings related to 9 transportation electrification increased from 52 utilities as of February 2021, to 60 utilities as of
- 10 November 2021.<sup>2</sup> The value of approved regulatory filings increased from approximately
- 11 \$2.97 billion to approximately \$3.4 billion over this timeframe.<sup>3</sup>
- As utilities become increasingly engaged in transportation electrification, the primary issues
   being considered by regulators are the regulation of EV charging services and the recovery of
   costs associated with utility electrification initiatives.
- 15

## B. Regulation of EV Charging Services

- 16 As discussed in the response to Request for Information PUB-NP-002, there is currently no
- 17 prevailing practice in Canada with respect to the regulation of EV charging services. Rather,
- 18 approaches to regulating EV charging services vary in response to the unique circumstances in
- 19 each province. This was observed by the Board, in Order No. P.U. 27(2020).<sup>4</sup>
- Regulators in certain provinces have determined that the regulation of EV charging services is
   not required. The Nova Scotia Utility and Review Board found that EV chargers are not a
   regulated service. The Ontario Energy Board determined that EV charging services are not

 <sup>&</sup>lt;sup>1</sup> Please refer to Edison Electric Institute, Electric Transportation Biannual State Regulatory Update, February 2021, page 1.
 <sup>2</sup> Please refer to Edison Electric Institute, Electric Transportation Biannual State Regulatory Update, November 2021, page 1 and Electric Transportation Biannual State Regulatory Update, February 2021, page 1.

<sup>&</sup>lt;sup>3</sup> Please refer to Edison Electric Institute, Electric Transportation Biannual State Regulatory Update, November 2021, page 1 and Electric Transportation Biannual State Regulatory Update, February 2021, page 24.

<sup>&</sup>lt;sup>4</sup> In Order No. P.U. 27(2020) the Board stated, "While these approaches respond to unique circumstances in each province, it seems that the provision of EV charging services has generally been viewed a service which is different than a traditional or core utility service." Please refer to *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 27(2020), Board of Commissioners of Public Utilities, September 14 2020, at p. 5/15–17.

1 subject to its jurisdiction. Under Maritime Electric's current pilot project, the rates for EV charging services will be established by the municipalities.<sup>5</sup> 2 3 Other provinces permit the regulation of EV charging services. The British Columbia Utilities Commission found that the regulation of EV charging services is required to protect the public 4 5 interest when the service is provided by a public utility. This determination was made on the 6 basis of mitigating ratepayer risk and ensuring fairness in the EV charging market.<sup>6</sup> Legislation in Quebec allows government to set rates for EV charging services.<sup>7</sup> 7 8 Whether or not the service is regulated, the rates for EV charging services throughout North America are generally based on market rates.<sup>8</sup> Newfoundland Power's response to CA-NP-014 9 10 includes a survey of hourly charging rates in Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia. The survey shows that fast charging 11 rates across Canada generally range from \$15 to \$20 per hour of use.<sup>9</sup> 12 13 Hydro filed an application with the Board in June 2020 regarding the provision of EV charging services in Newfoundland and Labrador.<sup>10</sup> Hydro submitted that EV charging services are akin to 14 15 post-meter activities, do not attract concerns regarding monopolistic utility behaviour, and are not a regulated service as contemplated by provincial legislation.<sup>11</sup> 16 In Order No. P.U. 27 (2020),<sup>12</sup> the Board determined that: (i) the *Public Utilities Act* and *Electrical* 17 Power Control Act, 1994 does not require Board approval of a rate, toll or charge for the 18 provision of EV charging services, and (ii) the regulation of the provision of EV charging services 19 20 in the province was not required at that time to protect the public interest or to be consistent

<sup>&</sup>lt;sup>5</sup> Please refer to page 3 of Newfoundland Power's response to PUB-NP-002.

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Please refer to pages 2 and 3 of Newfoundland Power's response to PUB-NP-002.

<sup>&</sup>lt;sup>8</sup> Please refer to Table 1 of Newfoundland Power's response to PUB-NP-026.

<sup>&</sup>lt;sup>9</sup> The one exception is Quebec, which charges approximately \$12 per hour of use.

<sup>&</sup>lt;sup>10</sup> "Application Regarding the Provision of Electric Vehicle Charging Services," Newfoundland and Labrador Hydro, June 26, 2020.

<sup>&</sup>lt;sup>11</sup> Please refer to Application Regarding the Provision of Electric Vehicle Charging Services," Newfoundland and Labrador Hydro, June 26, 2020, sch. 2, pp. 7–8.

<sup>&</sup>lt;sup>12</sup> *Public Utilities Act*, RSNL 1990, c P-47, Board Order No. P.U. 27(2020), Board of Commissioners of Public Utilities, September 14, 2020.

1	with sound public utility practice. The Board did not, however, make a finding as to whether EV
2	charging services are subject to the legislative authority of the province. <sup>13</sup>
3	C. Recovery of Electrification Costs
4	Utilities throughout North America have pursued various initiatives related to transportation
5	electrification. A 2020 survey conducted by the Utilities showed that North American utilities
6	have invested in: (i) EV incentive programs for vehicles and chargers; (ii) EV charging
7	infrastructure; and (iii) load management initiatives. <sup>14</sup> These initiatives are being pursued by
8	utilities throughout North America to achieve various policy goals, including greenhouse gas
9	reductions. <sup>15</sup>
10	In some cases, utility initiatives are fully funded by government and ratepayer recovery is not
11	required. In other cases, utility initiatives are partly funded by government with ratepayer
12	recovery of the remaining costs. A 2019 utility survey conducted by E Source showed that, of 28
13	utilities pursuing transportation electrification, approximately 60% funded their initiatives solely
14	from ratepayers or from a combination of ratepayer recovery and government funding. <sup>16</sup>
15	Ratepayer recovery of electrification initiatives has included both EV incentive programs and
16	charging infrastructure investments.
17	Utility-offered EV incentive programs include vehicle and charger incentives. A sample of North
18	American jurisdictions highlighted 9 regulators that have approved recovery of incentive

<sup>&</sup>lt;sup>13</sup> *Public Utilities Act,* RSNL 1990, c P-47, Board Order No. P.U. 27(2020), Board of Commissioners of Public Utilities, September 14, 2020, p. 5/26–27.

<sup>&</sup>lt;sup>14</sup> The Utilities researched 43 jurisdictions where utilities offer customer electrification programs. Of these 43 jurisdictions: (i) 32 jurisdictions provide incentives for vehicles or chargers, (ii) 31 jurisdictions invest in charging infrastructure, (iii) 27 jurisdictions provide custom solutions for commercial customers, and (iv) 25 jurisdictions undertake managed charging. For the results of the survey, 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. B.

<sup>&</sup>lt;sup>15</sup> For example, in Washington's 2021 State Energy Strategy, electrifying vehicles is a priority with goals to set ambitious statewide targets, improve planning and oversight of battery electric vehicle ("BEV") charging infrastructure, and accelerate the market for BEVs. Puget Sound Energy's 2021 Transportation Electrification Plan provides a pathway toward significantly reducing carbon emissions from vehicles and will help Washington achieve its climate goals. New York State's *Climate Leadership and Community Protection Act*, sets goals for decarbonization of the electric grid. In response, utilities have worked with the New York Public Service Commission to develop transportation programs that are aligned with the objectives of the legislation.

<sup>&</sup>lt;sup>16</sup> Please refer to Hydro's response to PUB-NLH-013.

program costs from ratepayers. For example, the Michigan Public Service Commission approved
 \$13 million in EV investments by DTE Energy, including residential and commercial charging
 incentives.<sup>17</sup> In Canadian jurisdictions, such as British Columbia, utility incentive programs
 have been fully funded by governments and ratepayer recovery has not been required.<sup>18</sup>

5 Utility investments in EV charging infrastructure have been substantial throughout North 6 America. For example, in June 2021, the Florida Public Service Commission approved Duke 7 Energy Florida's application for EV programs, including 100 utility-owned charging stations. 8 All costs associated with the charging stations are captured in the utility's cost of service.<sup>19</sup> 9 In Canada, ratepayer recovery of charging infrastructure costs has occurred in Prince 10 Edward Island, British Columbia, and Quebec.<sup>20</sup>

## 11 D. Conclusion

EVs are a rapidly emerging technology globally. North American utilities are increasingly engaged in various aspects of transportation electrification. This, in turn, has required regulators to consider the regulation of EV charging services and whether ratepayer recovery of utility costs related to transportation electrification is reasonable.

- Approaches taken throughout North America vary and generally depend on the specific
  policy goals to be achieved in each jurisdiction.
- While there is no prevailing practice regarding the regulation of EV charging services,
  market-based rates are typically applied.
- 20 In Newfoundland and Labrador, the Utilities apply market-based rates for EV charging
- 21 services. The Board previously determined that the approval of rates for EV charging
- 22 services was not required under provincial legislation or to protect the public interest at the
- time. In the Utilities' view, the Board's determination continues to be appropriate.

<sup>&</sup>lt;sup>17</sup> Please refer to Hydro's response to PUB-NLH-013, Attachment 1, Table 1.

<sup>&</sup>lt;sup>18</sup> For example, EV incentive programs provided by utilities in British Columbia are funded under its provincial government's CleanBC plan.

<sup>&</sup>lt;sup>19</sup> Please refer to Newfoundland Power's response to PUB-NP-045.

<sup>&</sup>lt;sup>20</sup> Please refer to Newfoundland Power's response to PUB-NP-045.

1	With respect to cost recovery, North American regulators have approved ratepayer
2	recovery of both EV incentive programs and charging infrastructure investments.
3	In Newfoundland and Labrador, the Utilities have proposed electrification initiatives to
4	support the provincial policy goal of customer rate mitigation. The rate mitigating benefit of
5	electrification reflects the unique circumstances in the province. Following the
6	commissioning of the Muskrat Falls Project, the province will have over 3 TWh of surplus
7	energy and domestic rates for electricity service will substantially exceed the value of export
8	sales. The dynamic was recognized by the Board as part of the Rate Mitigation Options and
9	Impacts Reference proceeding. In its final report as part of the proceeding, the Board found
10	that:
11 12 13	"[M]aximizing domestic load through electrification, improving energy efficiency and using demand response to reduce peak and allow for increased export sales leads to the best outcomes for customers. <sup>21</sup>
14	The electrification initiatives included in the 2021 Plan are essential to maximizing domestic load
15	in the province and achieving the best outcomes for customers. The initiatives included in the
16	2021 Plan also align with initiatives being pursued by utilities throughout North America. The
17	rate mitigating benefit of the Utilities' initiatives is consistent with the least-cost delivery of
18	reliable service to customers. Recovery of costs associated with the Utilities' electrification
19	initiatives from ratepayers is therefore reasonable.

<sup>&</sup>lt;sup>21</sup> Please refer to Hydro's response to CA-NLH-022, Attachment 1.