

1 **Q. Schedule F – 2021 Plan Program Descriptions**

2  
3 **Schedule F of the Application describes the proposed electrification programs,**  
4 **including the various rebates that will be offered to customers.**

5  
6 **(a) Please explain how Newfoundland Power determined the amount of the**  
7 **rebates described in the electrification programs in Schedule F and why it is**  
8 **considered to be an appropriate amount to be offered as an incentive for the**  
9 **purchase of EVs.**

10  
11 **(b) Did NP consider whether the amount of the rebate should change over time to**  
12 **optimize the incentive?**

13  
14 **(c) Has NP considered an end date for the proposed incentive program?**

15  
16 **A. (a) A. Electric Vehicle Incentives**

17  
18 Newfoundland Power first considered whether offering a financial incentive to  
19 customers towards the purchase of an electric vehicle (“EV”) was required to  
20 increase electrification in the province and provide customer rate mitigating  
21 benefits.<sup>1</sup>

22  
23 The upfront cost to purchase an EV is approximately \$19,000 more than a  
24 standard gas-powered vehicle. A financial incentive would work in conjunction  
25 with the federal rebates to reduce the upfront cost of an EV for customers.<sup>2</sup>

26  
27 The 2020-2034 Potential Study (the “Study”) provides that EV incentives could  
28 potentially increase EV load by 16% to 32% in the short-term through improving  
29 the business case of EV adoption and bridging the market to cost parity.<sup>3</sup> Over  
30 the long-term, the Study indicates it could increase EV load 8% to 9%.

31  
32 The increase in EV load from offering EV incentives estimated by the Study  
33 could increase net revenues by \$10 million to \$11 million over the 2021 to 2034  
34 period, providing rate mitigating benefits for customers.<sup>4</sup>

35  
36 Newfoundland Power then considered a range of incentive levels. This process  
37 considered the customer business case for purchasing an EV as well as incentive  
38 levels being offered in other jurisdictions.

---

<sup>1</sup> The EV incentive amounts are the same for both the Residential EV and Charging Infrastructure Program and the Commercial EV and Charging Infrastructure Program.

<sup>2</sup> There is currently a \$5,000 federal government purchase incentive for all-electric vehicles.

<sup>3</sup> See the *2021 Electrification, Conservation and Demand Management Application*, Volume 2, Schedule C, page 139.

<sup>4</sup> Net revenues consider both incremental revenues and incremental system and program costs.

1 Table 1 provides the net benefits a customer could see when purchasing an EV at  
2 a range of incentive levels.<sup>5</sup>

**Table 1:  
Customer Net Benefit of EV Purchase  
(Net Present Values)**

<b>Incentive level</b>	<b>\$500</b>	<b>\$2,500</b>	<b>\$5,000</b>
NPV <sup>6</sup>	\$2,000	\$4,000	\$6,000

3 Based on the NPV of the related costs and benefits, a customer could expect a  
4 benefit of between \$2,000 and \$6,000 when purchasing an EV, depending the  
5 incentive level. At an incentive level of \$2,500, the NPV is approximately  
6 \$4,000.

7  
8 Table 2 provides a range of incentive levels in Canada for an EV.<sup>7</sup>

**Table 2:  
EV Incentive Levels  
Canada**

<b>Range</b>	<b>Low</b>	<b>Middle</b>	<b>High</b>
Incentive level	\$3,000	\$5,000	\$8,000

9 EV incentives in Canada range from \$3,000 to \$8,000.<sup>8</sup> The federal incentive is  
10 \$5,000 for an all-electric vehicle.

---

<sup>5</sup> The costs include the incremental vehicle purchase cost and the cost of electricity over the expected life of the vehicle. Customer benefits included in the analysis are the takeCHARGE incentive, Federal incentive and fuel and maintenance savings over the life of the technology.

<sup>6</sup> Approximate net present value (“NPV”) of the related costs and benefits of owning an EV.

<sup>7</sup> Incentives for all-electric vehicles shown only.

<sup>8</sup> For example, incentives for an all-electric vehicle in British Columbia are up to \$3,000, whereas in Quebec incentives can be up to \$8,000.

1 Based on these considerations, an incentive level of \$2,500 for an EV appeared  
2 appropriate.<sup>9</sup> While at the low end of the incentive levels in other Canadian  
3 jurisdictions, it achieves a \$4,000 benefit for customers to help customers  
4 overcome the financial barrier to purchasing an EV.

### 5 6 **B. EV Charger Incentives**

7  
8 Incentives for EV chargers would follow a similar process to the EV incentives.

9  
10 Once an EV is purchased, typically more costs are required to install Level 2 EV  
11 charging equipment at home or at a commercial location.<sup>10</sup> The EV charger  
12 incentives provide a rebate for qualifying Level 2 EV chargers to reduce this  
13 barrier to EV adoption.<sup>11</sup> This will, in turn, increase EV load to benefit rate  
14 mitigation.<sup>12</sup>

15  
16 The \$500 EV charger incentive under the Residential EV and Charging  
17 Infrastructure Program is consistent with incentive amounts in other  
18 jurisdictions.<sup>13</sup>

19  
20 The \$3,000 EV charger incentive under the Commercial EV and Charging  
21 Infrastructure Program is consistent with incentive amounts in other  
22 jurisdictions.<sup>14</sup>

### 23 24 **C. Custom Electrification Program**

25  
26 This program will be offered to help customers replace certain fossil fueled  
27 technologies with electric equivalent technologies that are more efficient.

---

<sup>9</sup> The takeCHARGE incentive for the plug-in hybrid (“PHEV”) is \$1,000 or about half of the all-electric vehicle incentive level. This is similar to the federal program, where the PHEV incentive is \$2,500 or half of the all-electric incentive of \$5,000. This is similar to other provinces as well. For example, in British Columbia, PHEV incentives are \$1,500 or half of the all-electric amount of \$3,000. In Quebec, PHEV incentives can be \$500, \$4,000 or \$8,000.

<sup>10</sup> There may also be other installation costs, including the cost of upgrades to wiring and electrical capacity.

<sup>11</sup> The incentive amount of \$500 would cover approximately half the cost of a connected Level 2 EV charger, depending on the manufacturer and model.

<sup>12</sup> This program will also require customers to deploy connected Level 2 EV charging infrastructure at their homes to allow for future utility demand response programs.

<sup>13</sup> For example, Quebec provides a rebate up to \$600 and British Columbia provides a rebate up to \$700 towards the cost of eligible charging equipment and installation. Yukon provides a rebate of \$750 on eligible charging equipment and installation when installed in a private residence (up to 50% of purchase and installation costs).

<sup>14</sup> For example, Quebec provides a rebate up to \$5,000 of the cost of eligible charging equipment and installation. British Columbia provides rebates of \$4,000 and \$2,500, respectively on eligible charging equipment and installation (up to 50% of purchase and installation costs). Yukon provides a rebate of \$4,000 on eligible charging equipment and installation (up to 50% of purchase and installation costs).

1 Incentives of up to \$50,000 per site help garner interest and lower customer  
2 project costs.<sup>15</sup> Incentives are only provided on an individualized basis for  
3 projects that are cost-effective from both the customer and utility perspectives.  
4

5 All electrification programs will be monitored for participation levels, program  
6 influence and cost effectiveness, including incentive levels.<sup>16</sup> Similar to the  
7 Company's Conservation and Demand Management programs, changes to  
8 incentives amounts will occur as required.<sup>17</sup>  
9

- 10 (b) Yes, Newfoundland Power considered whether the amount of the rebate should  
11 change over time.  
12

13 Price parity between electric vehicles and internal combustion engine vehicles is  
14 expected by 2025. This is primarily due to reductions in the price of batteries  
15 resulting from advancements in technology.<sup>18</sup> The rebate amount is expected to  
16 change over time as electric vehicle prices come closer to prices of internal  
17 combustion engine vehicles. Reductions in vehicle incentive amounts are  
18 incorporated into in the *Electrification, Conservation and Demand Management*  
19 *Plan: 2021-2025*. After 2023, the rebate for an all-electric vehicle is forecast to  
20 be reduced by \$1,000 and the rebate for a plug-in hybrid electric vehicle is  
21 forecast to be reduced by \$500. These changes will be informed by program  
22 evaluation and market research.  
23

- 24 (c) Yes, EV incentives are currently expected to be concluded by 2025, when EVs  
25 are forecast to achieve price parity with internal combustion engine vehicles.  
26 Newfoundland Power will continue to monitor changes in the EV market and  
27 adjust its customer programs accordingly.

---

<sup>15</sup> The Custom Electrification program would operate in a similar fashion as the Business Efficiency Program. BC Hydro has a similar program and offers up to \$200,000 per customer.

<sup>16</sup> Formal evaluations will be conducted after the first year of implementation and biannually during operation.

<sup>17</sup> For example, in August 2014, the Insulation Rebate Program was revised to provide customers with a higher, easy-to-calculate rebate.

<sup>18</sup> *Electric Vehicle Outlook 2020*, Bloomberg New Energy Finance.