1   **Q.**   **(Reference slide 19) Regarding Electricity Supply Costs:**
2   **(a) Is the cost figure of $8,045,129 based on the marginal production cost (i.e., all-in**
3   **marginal cost including generation, transmission and distribution), on the export**
4   **price or on some other unit cost?**
5   **(b) Please provide a tabular calculation of the $8,045,129 figure showing the annual**
6   **quantity of electricity and corresponding annual electricity supply cost.**
7

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

15   (a) The cost figure of $8,045,129 referenced in this Request for Information is based on
16   the marginal production cost including energy and capacity costs. The marginal cost
17   of energy is equivalent to the forecast export energy price.
18

19   (b) Attachment A to this response to Request for Information provides the annual
20   quantity of electricity and peak demand and annual marginal electricity supply costs.
21   The calculation of $8,045,129 is computed on a net present value basis.[1]
22

23   Attachment B to this response to Request for Information provides the calculation of
24   the electricity supply costs for the Residential Electric Vehicle & Charging
25   Infrastructure Program.

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[1]   The calculation uses a 6% discount rate.

Residential Electric Vehicle & Charging Infrastructure
Program Impacts and Marginal Costs

Table 1:

Residential Electric Vehicle & Charging Infrastructure Program Impacts and Marginal Costs

Year	Winter On-Peak Energy (kWh)	Winter Off-Peak Energy (kWh)	Non-Winter Energy (kWh)	Peak Demand Impact (kW)	Winter On-Peak Energy Marginal Cost ($/kWh)	Winter Off-Peak Energy Marginal Cost ($/kWh)	Non-Winter Energy Marginal Cost ($/kWh)	Capacity Marginal Cost ($/kW)
	A	B	C	D	E	F	G	H
2021	65,167	65,167	130,334	18	0.078	0.064	0.027	326.26
2022	366,176	366,176	732,353	97	0.079	0.064	0.029	333.46
2023	1,047,049	1,047,049	2,094,098	269	0.070	0.056	0.026	340.90
2024	2,287,024	2,287,024	4,574,048	570	0.068	0.056	0.027	349.56
2025	4,221,385	4,221,385	8,442,770	1,037	0.067	0.056	0.029	357.53
2026	4,221,385	4,221,385	8,442,770	1,037	0.074	0.063	0.029	364.18
2027	4,221,385	4,221,385	8,442,770	1,037	0.077	0.066	0.030	371.67
2028	4,221,385	4,221,385	8,442,770	1,037	0.079	0.069	0.034	380.44
2029	4,221,385	4,221,385	8,442,770	1,037	0.083	0.072	0.039	390.08
2030	4,221,385	4,221,385	8,442,770	1,037	0.085	0.073	0.040	397.87
2031	4,156,218	4,156,218	8,312,436	1,019	0.087	0.075	0.041	405.82
2032	3,855,209	3,855,209	7,710,417	940	0.088	0.076	0.042	413.94
2033	3,174,336	3,174,336	6,348,672	768	0.090	0.078	0.043	422.21
2034	1,934,361	1,934,361	3,868,722	467	0.092	0.079	0.044	430.64

**Annual Quantity of Electricity, Peak Demand and Supply Costs
Residential Electric Vehicle & Charging Infrastructure Program**

Table 1:

Annual Quantity of Electricity, Peak Demand and Supply Costs

Residential Electric Vehicle & Charging Infrastructure Program

Year	Total Energy (kWh)[1]	Peak Demand (kW)[2]	Electricity Supply Costs ($)[3]
2021	260,667	18	18,811
2022	1,464,705	97	105,705
2023	4,188,195	269	272,214
2024	9,148,095	570	607,160
2025	16,885,539	1,037	1,132,853
2026	16,885,539	1,037	1,206,448
2027	16,885,539	1,037	1,244,146
2028	16,885,539	1,037	1,306,853
2029	16,885,539	1,037	1,392,034
2030	16,885,539	1,037	1,419,911
2031	16,624,872	1,019	1,425,015
2032	15,420,834	940	1,364,116
2033	12,697,344	768	1,127,953
2034	7,737,444	467	700,714

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[1]   This column represents the sum of columns A, B and C in Attachment A. Differences in the Total Energy column in Attachment B are due to rounding.

[2]   Column D from Attachment A.

[3]   This column represents (A x E) + (B x F) + (C x G) + (D x H) from Attachment A. Differences in the Electricity Supply Costs column in Attachment B are due to rounding.