

1 **Reference: Section 3: Finance**
2

3 **Q. Volume 1, page 3-56. Provide the impact on the forecast 2022 and 2023 revenue**
4 **requirement, rates and rate base assuming the Board does not approve the recovery**
5 **in customer rates of Newfoundland Power’s costs for electric vehicle incentives and**
6 **the inclusion in rate base of the proposed electric vehicle charging network as**
7 **proposed in Newfoundland Power’s 2021 Electrification, Conservation and Demand**
8 **Management application**
9

10 **A.** Table 1 provides *pro forma* impacts on 2022 and 2023 revenue requirement if capital and
11 program costs associated with Newfoundland Power’s electrification initiatives are not
12 approved by the Board.

Table 1:
Electrification Initiatives
***Pro Forma* 2022 and 2023 Revenue Requirements**
(\$000s)

	2022	2023
Capital Cost Recovery ¹	(340)	(477)
Program Cost Recovery ²	(278)	(746)
<i>Pro Forma</i> Revenue Requirement	(618)	(1,223)
Adjustments		
Transfers to Rate Stabilization Account (“RSA”) ³	134	435
<i>Pro Forma</i> Revenue Requirement from Base Rates	(484)	(788)

13 If electrification initiatives are not approved, it is estimated that *pro forma* 2022 and 2023
14 revenue requirements would be lower by approximately \$0.6 million and \$1.2 million,
15 respectively. The overall estimated customer rate impact is a reduction of approximately
16 0.2%.⁴ Forecast average rate base would be lower by approximately \$3.4 million and
17 \$6.2 million in 2022 and 2023, respectively.

¹ See Attachment A, Column E.

² See Attachment A, Column F.

³ Newfoundland Power is proposing to recover electrification program costs through the RSA. See the *2022/2023 General Rate Application, Volume 1, Application, Company Evidence and Exhibits, Exhibit 14*, page 2. Therefore, the amortization of electrification program costs is removed from the calculation of revenue requirement for the purposes of determining base customer rates on March 1, 2022. These costs would be included in the July 1, 2022 rate stabilization adjustment.

⁴ The base customer rate impact would be approximately (0.1%) on March 1, 2022. The remaining (0.1%) customer rate impact relates to the July 1, 2022 rate stabilization adjustment.

1 The *pro forma* analysis does not consider the long-term rate mitigation benefits for
2 customers as a result of planned electrification initiatives.⁵

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4 Attachment A provides Newfoundland Power’s net present value (“NPV”) analysis
5 associated with its electrification initiatives. The NPV analysis shows that customer
6 electrification initiatives will provide additional net revenue of approximately
7 \$123 million over the period 2021 to 2034. Increased net revenue through electrification
8 initiatives will provide a rate mitigating benefit for customers of approximately 0.5¢/kWh
9 by 2034.

10
11 Additionally, the market potential study completed by Dunsky Energy Consulting shows
12 that system costs will increase without utility intervention in transportation
13 electrification.⁶ This is largely due to an increase in capacity-related system costs
14 resulting from the unmanaged charging of electric vehicles. Increased system costs
15 would put upwards pressure on revenue requirements and customer rates.

⁵ This includes incremental revenues as a result of higher sales from electrification in 2022 and 2023.

⁶ See the 2022/2023 General Rate Application, Volume 2, Supporting Materials, Tab 7, 2021 Electrification, Conservation and Demand Management Plan:2021-2025, page 27, Figure 6.

Newfoundland Power Electrification Initiatives
***Pro Forma* Revenue Requirement Analysis**
2021 to 2034

Newfoundland Power Inc.
Pro Forma Revenue Requirement Analysis
2021 to 2034
(\$000s)

Year	Investment		Pro Forma Revenue Requirement Impacts					
	Capital Costs	Program Costs	Incremental Revenues	Incremental System Costs	Capital Cost Recovery	Program Cost Recovery	Net Revenues	Cumulative NPV
	A	B	C	D	E	F	G	H
2021	1,538	1,336	49	32	115	35	(133)	(126)
2022	1,530	3,014	283	183	340	278	(519)	(589)
2023	460	3,944	772	447	477	746	(899)	(1,348)
2024	460	4,494	1,676	953	530	1,328	(1,135)	(2,253)
2025	311	4,385	3,414	1,927	570	1,954	(1,037)	(3,035)
2026	-	1,074	7,399	4,248	571	2,456	123	(2,947)
2027	-	1,706	13,142	7,563	548	2,544	2,487	(1,272)
2028	-	2,364	20,604	12,155	525	2,721	5,202	2,039
2029	-	2,980	29,583	18,175	502	2,987	7,919	6,803
2030	-	3,651	40,373	24,813	480	3,333	11,747	13,481
2031	-	4,334	52,825	32,481	382	3,765	16,197	22,184
2032	-	5,061	67,050	41,259	214	4,151	21,425	33,063
2033	-	5,788	82,948	51,091	107	4,467	27,284	46,157
2034	-	6,613	101,001	62,258	56	4,792	33,894	61,529

Notes

- A Includes all Newfoundland Power electric vehicle charging infrastructure costs associated with the Company's *Electric Vehicle Charging Network*.
- B Includes all program and research costs associated with Newfoundland Power's electrification initiatives, including operation of the Company's electric vehicle charging sites.
- C Projected incremental revenues from additional energy sales as a result of the electrification initiatives set out in the 2021 Plan. The revenue figures are based on a change from the rates approved by the Board in Order No. P.U. 31 (2019) Amended and annual increases in electricity rates of 2.25%.
- D Projected incremental system costs (energy and capacity costs) as a result of the electrification initiatives set out in the 2021 Plan. The system cost figures primarily reflect the marginal cost information received from Newfoundland and Labrador Hydro in April 2020.
- E Includes forecast depreciation, financing costs and associated income taxes related to the electric vehicle charging infrastructure investment. Based on an estimated 10 year service life, the Company's incremental weighted average cost of capital ("WACC") of 5.81% and an income tax rate of 30%.
- F Includes forecast amortization, financing costs and associated income taxes related to electrification program costs. Based on an estimated amortization period of 10 years (equal to the estimated life of an electric vehicle), the Company's incremental WACC of 5.81% and an income tax rate of 30%.
- G Calculated as C - D - E - F.
- H The net present value ("NPV") as of the end of each period using the Company's incremental WACC of 5.81%.