

1 Q. Please address the issue of intergenerational equity with respect to the electrification proposals
2 and particularly the fact that costs are incurred beginning in 2021 but the rate mitigation
3 benefits do not materialize until later in the period 2021 to 2034.

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6 A. *This Request for Information relates to the Electrification, Conservation and Demand*
7 *Management Plan: 2021-2025 (the “2021 Plan”) developed in partnership by Newfoundland and*
8 *Labrador Hydro and Newfoundland Power (“Hydro” or, collectively, the “Utilities”). Accordingly,*
9 *the response reflects collaboration between the Utilities.*

10 **Background**

11 Intergenerational equity is a principle of fairness that holds that ratepayers in a given period
12 should pay only the costs necessary to provide them with service in that period.¹

13 Regulatory principles, including the principle of intergenerational equity, must be considered
14 together with the requirements of the provincial power policy. The provincial power policy
15 requires that services and facilities be managed in a manner that results in the most efficient
16 generation, transmission and distribution of power to customers. The policy also requires that
17 customers be provided with reliable service at the lowest possible cost.²

18 It is typical for upfront costs to be required in order to achieve long-term efficiency benefits that
19 enable least-cost service delivery. The Board of Commissioners of Public Utilities (“Board”)
20 routinely considers the long-term customer benefits resulting from upfront utility investment
21 for both Newfoundland and Labrador Hydro (“Hydro”) and Newfoundland Power Inc.
22 (“Newfoundland Power”).

¹ Intergenerational equity is one of a number of regulatory principles that have been considered by the Board. See, for example, Order No. P.U. 7(2002-2003), p. 27, *et. seq.*

² See Section 3(b) of the *Electrical Power Control Act, 1994*.

1 **Hydro Capital Investment**

2 For example, Hydro’s 2021 Capital Budget Application proposed a project to refurbish the
3 Ebbegunbaeg Control Structure. Hydro’s least-cost option reflected the alternative with the
4 highest upfront capital cost as the cost benefit analysis identified cost savings over a four-year
5 period, including more efficient and cost-effective future corrective and preventive
6 maintenance. Similar to the planned electrification programming, an up-front investment was
7 made in order to achieve future cost savings, consistent with the provision of least-cost reliable
8 service to customers. The Board approved this project in Order No. P.U. 2(2021).

9 **Newfoundland Power Capital Investment**

10 In Order No. P.U. 37(2020), the Board recognized the upfront investment and customer benefits
11 associated with the Newfoundland Power’s *LED Street Lighting Replacement Plan*. In that order,
12 the Board stated:

13 Expenditures associated with the LED street lighting replacement plan which will
14 cost approximately \$32.8 million over six years and are estimated to reduce
15 energy and maintenance costs by \$52 million over 20 years resulting in lower
16 overall costs for customers.³

17 The net present value (“NPV”) analysis for the *LED Street Lighting Replacement Plan* showed a
18 negative customer impact for the first 6 years when compared to current practice at that time.
19 The customer benefits of the plan became positive in year 7 and continued through year 20 of
20 the analysis. On an NPV basis, the plan will result in lower overall costs for customers of \$4.9
21 million over 20 years.⁴

22 **Amortization Period**

23 Hydro’s application seeks to recover electrification programming costs over a seven-year
24 period.⁵ This amortization period is a reflection of the long-term nature of the benefits
25 associated with electrification and conservation and demand management (“CDM”)

³ See Order No. P.U. 37(2020), p. 10.

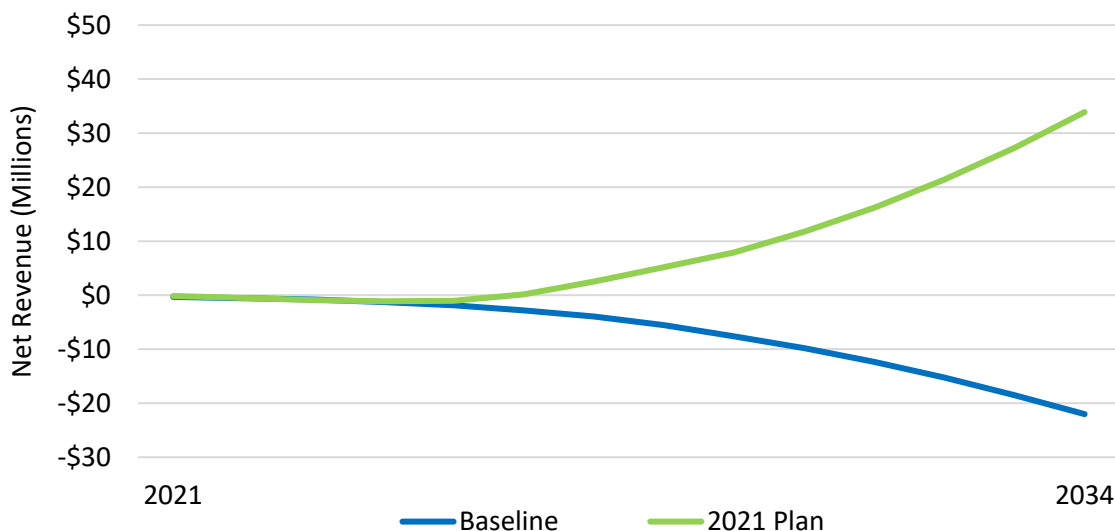
⁴ “Newfoundland Power’s 2021 Capital Budget Application,” Newfoundland Power Inc., July 9, 2020, vol. 1, LED Street Lighting Replacement Plan, app. B.

⁵ Newfoundland Power, in its 2022/2023 General Rate Application has proposed to increase the amortization period for CDM program costs from seven to ten years. Should Newfoundland Power’s proposal be approved, Hydro anticipates seeking alignment.

1 programming, similar to the approach taken to the recovery of capital investment by the
2 Utilities. In Hydro’s view, the amortization of electrification costs over seven to ten years strikes
3 an appropriate balance between the provision of least-cost service and the intergenerational
4 equity principle.

5 **Conclusion**

6 Figure 1 shows the rate mitigating benefit of electrification from 2021–2034 under the baseline
7 scenario and with implementation of the 2021 Plan, which includes load management.⁶



**Figure 1: Rate Mitigating Benefit of Electrification
2021–2034**

8 On an NPV basis, the electrification programs outlined in the 2021 Plan will provide a benefit of
9 approximately \$34 million by 2034; left unmanaged and without utility intervention, the
10 charging of electric vehicles would increase costs to customers by approximately \$22 million by
11 2034. As such, the provision of electrification is consistent with Hydro’s obligation to provide
12 reliable service at the lowest possible cost. The amortization of electrification program costs

⁶ “Application for Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021–2025,” Newfoundland and Labrador Hydro, rev. 1, July 8, 2021 (originally filed June 16, 2021), sch. 3, p. 27, fig. 6.

1 over multiple years balances the principle of intergenerational equity with the upfront
2 investment required to achieve these savings.

3 Based on the foregoing, in Hydro’s view, planned electrification initiatives reasonably balance
4 the principle of intergenerational equity and the requirements for efficient, least-cost service
5 delivery.