

**2021 Electrification, Conservation and Demand Management Application**

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1 Q. Reference: Bowman, Patrick, “Electrification, Conservation and Demand  
2 Management Plan Review, including Use of a Modified Total Resource Cost Test,”  
3 InterGroup Consultants Ltd., May 4, 2022, p. 9/8–10.

4 Second, based on the above cost profile, the assumptions about the  
5 NPV benefits to the utility and its other customers are extremely  
6 marginal over the 15 year horizon. It should be imminently clear that  
7 the program exhibiting these metrics would not yield measurable rate  
8 mitigation benefits.

9 The updated combined net present value of both Newfoundland and Labrador  
10 Hydro (TC-PUB-NLH-004) and Newfoundland Power Inc. (TC-PUB-NP-005, Rev  
11 1) is approximately \$98 million over the 15-year time horizon. Further, net  
12 revenues contributing to rate mitigation are forecast to be in excess of \$60 million  
13 annually by 2034. In light of this information, would any of Mr. Bowman’s  
14 conclusions change? If not, why not?

15 A. In general, yes.

16 Mr. Bowman’s comments in the evidence focused on Hydro’s EV program metrics,  
17 to illustrate the type of concerns that can arise with programs that are of marginal  
18 net benefit to rates (RIM of 1.02) and, more importantly, only show a benefit after  
19 a long duration where the annual and cumulative NPV of the program are negative.  
20 Mr. Bowman’s comments were not specifically about the EV program, but were  
21 just using the Hydro side of that program as an illustration.

22 Although Mr. Bowman was not specifically reviewing the EV program, it is noted  
23 that Hydro’s metrics, when combined with NP’s, are somewhat more attractive.

24 Looking at the reported EV metrics in combination with NP (using updated  
25 information in TC-PUB-NP-005, pdf pages 27, 29 and 34), the NPV profile turns  
26 positive on an annual basis by 2027, and cumulatively by 2028 (i.e., within about  
27 5 years). Further, the NPV becomes material fairly quickly thereafter (\$16M by  
28 2030 and growing quickly). Finally, the most negative combined NPV year is about  
29 \$1.3 million (2025), which is fairly small on the Island Interconnected System.

1 In short, when the NP metrics are combined with Hydro's, the program has a passable  
2 profile – limited negative impact for about the first 3-4 years, turning positive by about  
3 year 5-6, and starting to grow to a material level by about year 8-10. As an electrification  
4 program with additional other benefits (e.g., customer gas cost savings and emissions  
5 benefits), such a program may be worth pursuing. However, there can still be material  
6 concerns that need to be addressed, for example:

- 7 1) Are the program NPV inputs reliable, in that the added revenues are indeed  
8 revenues that only arise if Hydro/NP run the program (i.e., these same customers  
9 would not adopt EVs without Hydro/NP's investments)?
- 10 2) A program with this profile will still not be of much benefit to rate mitigation, as it  
11 takes 8-10 years before measurable positive effects on revenue requirement are  
12 noted.
- 13 3) The program design still may not be optimized, in that the delayed benefits to the  
14 utility and its other ratepayers (as shown by the NPV) may be offset by excessive  
15 benefits to the customer, through overly generous incentives or subsidies.