Q. With reference to Hydro's response to IIC-NLH-021:

Please provide a sensitivity analysis where the baseline EV uptake is increased such that the NPV for the EV program over (a) 10 years and (b) 15 years becomes zero. Please provide the sales figures which would yield these updated NPVs. (i.e., how much does the assumption about baseline sales have to increase organically before the economic justification for the EV purchase incentives is zero).

Please comment on the ongoing needed role of the Demand-Response individual EV charge controller investment in light of the above potential changes to the baseline EV uptake.

A. Newfoundland and Labrador Hydro ("Hydro") notes that TC-IC-NLH-021 refers to three net present value ("NPV") calculations. For the purpose of this response, Hydro has assumed that this request is in reference to the NPV which supports Hydro's application and is included as Appendix A to Schedule 1. As noted in Hydro's response to TC-IC-NLH-021, Hydro's NPV analysis includes the impacts associated with Hydro's Island Interconnected System retail customers only and excludes those located in Newfoundland Power Inc.'s service territory. The baseline scenario electric vehicle ("EV") adoption forecast provided by Dunsky Energy Consulting is based upon electrification programming for the combined Island Interconnected System and can be found in the Conservation Potential Study.[1]

The information requested is provided as Attachment 1 to this response. Hydro's original NPV analysis is negative in 2030; therefore, the 10-year scenario requires an increase in EV uptake relative to Hydro's forecast to result in a $0 NPV at that time. Hydro notes that the 15-Year scenario[2] requires approximately 70% of the of the originally forecasted EV sales to result in a $0 NPV.

[1] "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, sch. C, p. 316 of 325, table F-39.
[2] Hydro has provided 14-year NPV because all available information and study concluded in 2034.

Due to the forecast increase in system peak, combined with a relatively high winter marginal capacity cost, it is Hydro's view that load management of EV charging is critical under any adoption scenario in order to minimize system costs for customers.

Original NPV[1]

EVs[2]	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual Units	4	17	36	63	98	276	372	464	524	583	639	690	737	860
Cumulative Units	4	21	57	120	218	494	866	1,330	1,854	2,437	3,076	3,766	4,503	5,363

10-Year $0 NPV

EVs	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Annual Units	13	55	117	205	319	897	1,209	1,508	1,703	1,895
Cumulative Units	13	68	185	390	709	1,606	2,815	4,323	6,026	7,921

14-Year $0 NPV

EVs	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Annual Units	3	12	26	46	72	202	272	339	383	426	467	504	538	628
Cumulative Units	3	15	42	88	159	361	632	971	1,354	1,780	2,246	2,750	3,288	3,916

[1] Net Present Value ("NPV").

[2] Electric Vehicles ("EVs").