



NEWFOUNDLAND AND LABRADOR  
**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**  
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2021-07-15

Ms. Shirley Walsh  
Senior Legal Counsel - Regulatory  
Newfoundland and Labrador Hydro  
P.O. Box 12400  
St. John's, NL A1B 4K7


Dear Ms. Walsh:

**Re: Newfoundland and Labrador Hydro - Approvals Required to Execute Programming Identified in the Electrification, Conservation and Demand Management Plan 2021-2025 - Requests for Information**

Enclosed are Requests for Information PUB-NLH-001 to PUB-NLH-049 regarding the above-noted application.

If you have any questions or require any clarification, please do not hesitate to contact the undersigned.

Yours truly,

  
Cheryl Blundon  
Board Secretary

CB/cj  
Enclosure

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1 **IN THE MATTER OF**  
2 the *Electrical Power Control Act, 1994*,  
3 SNL 1994, Chapter E-5.1 (the “*EPCA*”)  
4 and the *Public Utilities Act, RSNL 1990*,  
5 Chapter P-47 (the “*Act*”), as amended, and  
6 regulations thereunder; and  
7

8 **IN THE MATTER OF** an application by  
9 Newfoundland and Labrador Hydro, pursuant  
10 to sections 58, 71 and 80 of the *Act*, for the  
11 approval of an economic test and deferral of  
12 Electrification, Conservation and Demand  
13 Management (“*ECDM*”) program costs in the  
14 proposed *ECDM Cost Deferral Account* for  
15 future recovery through the proposed *ECDM*  
16 *Cost Recovery Adjustment*; and  
17

18 **IN THE MATTER OF** an application by  
19 Newfoundland and Labrador Hydro, pursuant  
20 to section 41(3) of the *Act*, for the approval of  
21 supplemental 2021 capital expenditures related  
22 to the construction of an electric vehicle charging  
23 network.

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**PUBLIC UTILITIES BOARD  
REQUESTS FOR INFORMATION**

**PUB-NLH-001 to PUB-NLH-049**

**Issued: July 15, 2021**

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- 1 **PUB-NLH-001** Please advise as to the policy guidance that was provided by the provincial  
2 government in the development of the 2021 Plan.  
3
- 4 **PUB-NLH-002** Please provide the eligibility guidelines for the commercial and residential EV  
5 and charging infrastructure incentives and in particular address:  
6  
7 a) whether the EV incentives are available to utility customers only, and if so,  
8 are they available to customers on the Island Interconnected system only,  
9 are household members of utility customers eligible and how will the “at-  
10 cash rebate” be provided to utility customers only; and  
11 b) the requirements with respect to eligible vehicles, including whether used  
12 vehicles are eligible, whether a second incentive for a second vehicle is  
13 available, and whether there are limits as to the cost of the vehicle.  
14
- 15 **PUB-NLH-003** Please confirm whether the electrification initiatives relate only to the Island  
16 Interconnected system and, if not, whether costs will be incurred and recovered  
17 with respect to the other systems in the province. Please explain how the costs  
18 of electrification initiatives for other systems will be recovered from customers  
19 and on what basis this is appropriate in the circumstances.  
20
- 21 **PUB-NLH-004** The Conservation Potential Study (the “Dunsky” report) states at page 111 that  
22 EV incentives are typically provided at the federal or provincial level and  
23 limited case studies are available related to utilities providing EV purchase  
24 incentives. In light of this please explain why the recovery of the costs of the  
25 proposed utility EV incentives should be approved in this province.  
26
- 27 **PUB-NLH-005** The Dunsky report states at page 109 that EV incentives have a significantly  
28 lower cost-effectiveness than infrastructure deployment and also states at page  
29 116 that although incentive programs could accelerate adoption in the short-  
30 term, they have limited long-term impact on the market and may not be a  
31 suitable approach for intervention. In light of this please explain why the  
32 recovery of the costs of the proposed utility EV incentives should be approved  
33 in this province.  
34
- 35 **PUB-NLH-006** The Dunsky report states at page 116 that EV charging load management will  
36 be critical to handle the system impacts of EVs and benefit financially from EV  
37 adoption. In light of this will there be any requirements for recipients of the EV  
38 incentives with respect to managing load?  
39
- 40 **PUB-NLH-007** The Dunsky report states at page 104 that programs involving EV charging  
41 infrastructure incentives are usually not effective at driving additional EV  
42 adoption and mostly benefit existing EV adopters and increase free ridership.  
43 However, the incentives can be used to cover the incremental cost of smart  
44 chargers for EV adopters to enable networking and load management  
45 functionalities. In light of this please explain whether the recipients of the EV  
46 charging infrastructure incentive will be participating in the EV Demand  
47 Response Pilot Program or will be subject to other load management  
48 requirements. If there are no load management requirements why should the

- 1 recovery of the costs of the proposed utility EV charging infrastructure  
2 incentives be approved at this time.  
3
- 4 **PUB-NLH-008** Was any analysis conducted as to the optimal amount of the utility EV and  
5 charging infrastructure incentives in terms of how effective varying amounts of  
6 incentives would be in removing barriers and accelerating EV adoption over the  
7 short and long term?  
8
- 9 **PUB-NLH-009** What is the impact of the provincial budget announcement on May 31, 2021  
10 with respect to EV rebates and will provincial government funding impact the  
11 utility EV or charging infrastructure incentives either in terms of cost or  
12 effectiveness?  
13
- 14 **PUB-NLH-010** Explain the reason for the difference in the amount of the commercial EV  
15 charging infrastructure incentive of up to \$3,000 and the residential incentive  
16 of up to \$500.  
17
- 18 **PUB-NLH-011** The Dunsky report suggests on page 113 that generally medium and heavy-duty  
19 vehicles and buses were found to be more sensitive to economics and will  
20 require substantial support in the form of incentives or changes in key economic  
21 factors to trigger any significant shift in adoption beyond natural market uptake.  
22 In light of this has there been any analysis of whether the proposed incentives  
23 will be effective and why the recovery of the costs of the proposed commercial  
24 utility EV incentives should be approved for this province at this time?  
25
- 26 **PUB-NLH-012** The Dunsky report states at page 94 that, with a large incentive of 70% of  
27 incremental costs along with enabling strategies to help reduce barriers,  
28 approximately 3.5% of commercial floor space adopts some form of heat pump  
29 heating system to displace oil-fired heating while only marginal numbers of  
30 customers adopt heat pump domestic water heaters over oil-fired heating  
31 systems. Please provide available analysis which demonstrates that the  
32 proposed recovery from customers of the costs associated with the custom  
33 electrification program incentives should be approved at this time. What are the  
34 considerations associated with waiting to implement this program until the  
35 completion of the Small Business Direct Install Pilot Program and until there is  
36 further study with respect to the peak demand impacts?  
37
- 38 **PUB-NLH-013** Please provide all available information with respect to other Canadian  
39 provinces where EV and charging infrastructure incentives are offered by a  
40 utility and costs are recovered from customers. If the costs of EV and charging  
41 infrastructure incentives are generally not recovered from utility customers in  
42 other provinces, please explain why the proposed recovery from customers in  
43 this province should be approved.  
44
- 45 **PUB-NLH-014** Please provide all available information with respect to other Canadian  
46 provinces where utilities have installed DCFC and Level 2 charging stations  
47 and have recovered the costs from customers, including a return. If the costs of  
48 the DCFC and Level 2 charging stations are typically not recovered from

- 1 customers in other provinces, please explain why the proposed recovery from  
 2 utility customers in this province should be approved.  
 3
- 4 **PUB-NLH-015** The Dunskey report states at page 111 that the light-duty vehicle market is  
 5 severely constrained by the lack of public charging infrastructure and there is  
 6 currently a lack of a solid business case for DCFC charging stations in the third-  
 7 party market. Please provide any analysis conducted of the optimal number of  
 8 utility DCFC charging stations of each year over the period 2021 to 2025.  
 9
- 10 **PUB-NLH-016** Please explain how the costs associated with the “make-ready model” will be  
 11 treated.  
 12
- 13 **PUB-NLH-017** Are there deadlines related to the federal funding available for DCFC and Level  
 14 2 charging stations?  
 15
- 16 **PUB-NLH-018** Please provide a detailed breakdown of the total estimated annual costs of the  
 17 electrification programming proposals for 2021 to 2025 (both utilities  
 18 combined), setting out the costs separately for all aspects of the proposals,  
 19 including each of the programs, customer education and research, the pilot  
 20 programs, and the DCFC and Level 2 charging stations.  
 21
- 22 **PUB-NLH-019** Please explain how the costs associated with the electrification proposals will  
 23 be shared/apportioned by the utilities, addressing each aspect of the proposals  
 24 separately?  
 25
- 26 **PUB-NLH-020** Would the approach which is taken by the provincial government with respect  
 27 to mitigating rates following the commissioning of the Muskrat Falls project  
 28 have the potential to impact the timing or amount of the estimated electrification  
 29 rate mitigation benefits which are passed on to customers?  
 30
- 31 **PUB-NLH-021** Table I-2 in Schedule I of the Electrification Conservation Demand  
 32 Management Plan 2021-2025, provides the primary economic tests used to  
 33 evaluate electrification programs in North American jurisdictions. The majority  
 34 of jurisdictions that evaluate the cost-effectiveness of electrification programs  
 35 use an overall cost assessment. There is no indication whether any of the seven  
 36 jurisdictions identified in Table I-2 that evaluate cost-effectiveness of  
 37 electrification program, which are all from the US, do so using only the mTRC  
 38 test as proposed. It also suggests that two of the seven (California and Oregon)  
 39 use multiple tests.  
 40
- 41 a) Is this jurisdictional information the basis on which the proposed mTRC test  
 42 is claimed to be consistent with accepted utility practice?  
 43 b) Can it be inferred from this table that no Canadian jurisdictions currently  
 44 assess cost-effectiveness of electrification programming?  
 45
- 46 **PUB-NLH-022** Footnote 14 in Table I-2 in Schedule I of the Electrification Conservation  
 47 Demand Management Plan 2021-2025 states that “Overall cost assessment  
 48 includes utilities that are using the TRC, SCT or a test created by the utility

specifically for electrification that evaluates programs from the perspective of the customer, the utility and the ability to meet policy objectives.”

- a) Is the proposed mTRC test a jurisdiction specific test?
- b) Is the proposed mTRC test used in other jurisdictions?
- c) What considerations at the jurisdictional level would be incorporated into a jurisdiction-specific test such as the mTRC test?

**PUB-NLH-023** On page 2 of 3, lines 22-27 of Newfoundland Power’s response to PUB-NP-024, in relation to Newfoundland Power’s application “*Electrification, Conservation and Demand Management*” stated the following in its description of the mTRC test:

*“Referred to in the National Standard Practice Manual as a jurisdiction specific test, the mTRC test includes utility system impacts and customer impacts and can also include impacts associated with achieving applicable policy goals.”*

Page 3-14 of the National Standard Practice Manual states that a jurisdiction-specific test includes the utility system impacts, **plus** those impacts associated with achieving applicable policy goals.

- a) What specific policy goals, if any, have been included in the proposed mTRC test?
- b) Is it proposed that the mTRC test would be the primary test for evaluating cost-effectiveness of electrification programming?
- c) Was the use of a secondary cost-assessment test to supplement the mTRC test considered? What secondary tests could be used in this case? What factors would inform a decision to use a secondary test?

**PUB-NLH-024** Did the utilities consult with or seek an expert opinion on the appropriate cost-effectiveness test(s) to use for electrification programs in this jurisdiction?

**PUB-NLH-025** On page 2, Schedule 1 of the Application, Hydro states that consistent with the TRC test, an mTRC test result of 1.0 or greater indicates a program is cost-effective from both a customer and utility perspective.”

- a) Is the customer cost-effectiveness assessed at the individual customer level i.e. only those customers who purchase EVs?
- b) Are individual customer incentives provided by the utility accounted for in this assessment?

**PUB-NLH-026** Footnote 1 on page 2 of 33, Schedule F, indicates that the Incentive Strategy for the residential EV incentive program assumes that the current federal incentives will remain in place for the duration of the 2021-2025 Plan.

- a) Does the calculation of the proposed mTRC test assume the same level of federal incentives available for each year of the full analysis period 2021-2025?

- 1                   b) If these incentives decreased or are eliminated over the same period how  
2                   would the mTRC results change?  
3                   c) If the federal incentives are reduced or eliminated during this period, would  
4                   the utilities seek to replace the loss of federal incentives or increase the  
5                   utility incentive to reflect the loss?  
6
- 7   **PUB-NLH-027**   Have the mTRC analyses been subject to any sensitivity analysis to assess the  
8                   impact of future changes in market factors such as changes in the price of EVs,  
9                   number of EVs purchased, changes in consumption of EVs and changes in  
10                  marginal costs?  
11
- 12   **PUB-NLH-028**   If the annual update/re-evaluation of the mTRC analyses shows that a program  
13                  is no longer cost-effective, what action will Hydro take? If a program(s) is  
14                  suspended or modified, how would this affect the delivery of other planned  
15                  electrification programming or are programs independent?  
16
- 17   **PUB-NLH-029**   Please provide the detailed calculations of the mTRC test for each of the  
18                  electrification programs described in Schedule F of the Electrification  
19                  Conservation Demand Management Plan 2021-2025. In the response please  
20                  also address the following:  
21
- 22                  a) Please explain the basis on which the proposed mTRC test should be  
23                  approved given that the test includes significant non-energy benefits that  
24                  accrue only to certain customers in the form of direct cost savings while  
25                  including costs that will be paid for by all customers?  
26                  b) Excluding the forecast rate mitigation impact of \$0.7 million in 2034, are  
27                  there other benefits to all customers associated with the proposed  
28                  electrification programs?  
29                  c) Does the mTRC analyses include any costs associated with equipment  
30                  replacement due to changing technologies or obsolescence?  
31                  d) Please show the impact of the elimination of federal incentives on the  
32                  mTRC results as of 2023, 2025, 2028 and 2030.  
33                  e) Please provide the mTRC calculations including the federal incentive and  
34                  the recent provincial EV incentive announced May 31, 2021 in the  
35                  Provincial Budget but excluding the utility EV incentive. What impact  
36                  would this have on the utilities' proposed electrification program?  
37
- 38   **PUB-NLH-030**   On page 5, paragraph 19 of the Application, Hydro is proposing to charge the  
39                  capital cost of the DCFC charging stations on the Island Interconnected system,  
40                  net of the government contributions, to the ECDM Cost Deferral Account but  
41                  to not include the capital costs in rate base.  
42
- 43                  a) The current CDM Cost Deferral Account is included in Hydro's rate base.  
44                  Please confirm whether or not the ECDM Cost Deferral Account included  
45                  in rate base will be net of the capital costs associated with the DCFC  
46                  charging stations?  
47                  b) If the ECDM Cost Deferral Account included in rate base is not net of the  
48                  capital costs, please explain the basis which the capital costs should be

included in the account and therefore in rate base, addressing the advantages and disadvantages of this approach.

- c) Is Hydro proposing a similar treatment for the capital costs of the Level 2 EV chargers?
- d) The application proposes that the capital costs relating to the Labrador locations will not be included in the ECDM Cost Deferral Account, please confirm that the costs that will not be included in rate base?

**PUB-NLH-031** In its Electrification, Conservation and Demand Management application, Newfoundland Power is proposing a new account for the deferral of costs relating to its electrification programs. This account would be in addition to the current CDM Cost Deferral Account used for the deferral of its CDM program costs. What are the advantages and disadvantages of this approach and are there issues which would need to be addressed before determining whether Hydro should take a similar approach?

**PUB-NLH-032** On page 5 paragraph 21 of the Application, Hydro states that the proposed programs directly associated with electrification by Hydro's Rural Island Interconnected customers, are projected to provide estimated rate mitigation benefits of approximately \$0.7 million over the longer term. Please explain how this will impact costs and rates for all customers on the Island Interconnected system.

**PUB-NLH-033** On page 5, paragraph 22(ii) of the Application, Hydro is seeking approval of the ECDM Deferral Account to provide for the deferral of costs related to the implementation of Hydro's ECDM programs for all systems, including the CDM programs for the Labrador Interconnected system. Please confirm if the electrification programs are being provided for all systems, including isolated systems. If so, please explain why all systems should be included, how it benefits each system, how the electrification of isolated systems would impact the rural deficit and how the costs relating to these systems will be recovered.

**PUB-NLH-034** Hydro has assessed the rate mitigating benefit of the Customer Electrification Portfolio through a Net Present Value analysis that determined a projected rate mitigation benefit of approximately \$0.7 million by 2034. How will Hydro manage the risk of rate mitigation not being achieved over this period of time?

**PUB-NLH-035** Hydro is proposing to charge the operating and maintenance costs and credit the revenues obtained through the provision of charging services to the ECDM Deferral Account for the twenty DCFC chargers (14 previously approved and six proposed) on the Island Interconnected system.

- a) Please provide an estimate of the annual operating and maintenance costs per charging site.
- b) Will the operating costs also include any administrative costs associated with managing the EV charging stations? If so, how will these costs be allocated between the charging stations on the Island Interconnected system and those on the Labrador Interconnected system?




- 1 c) Will the operating and maintenance costs, net of revenue relating to the  
2 Level 2 chargers also be included in the ECDM Deferral Account?  
3
- 4 **PUB-NLH-036** Hydro is proposing to include the capital costs of the EV charging stations in  
5 the ECDM Deferral Account. How will the capital cost of the chargers be  
6 recorded for financial reporting purposes? Will Hydro require approval from  
7 the Board of an IFRS deviation under IFRS 14?  
8
- 9 **PUB-NLH-076** Please provide a detailed breakdown of Hydro’s costs estimated to be included  
10 in the deferral account in the period 2021 to 2025 setting out the costs separately  
11 for all aspects of the proposals, including each of the programs, customer  
12 education and research, the pilot programs, and the costs associated with the  
13 DCFC and Level 2 charging stations.  
14
- 15 **PUB-NLH-038** Please provide a breakdown of the number of DCFC charging stations and  
16 Level 2 charging stations included in the “Proposed EV Charger Investments”  
17 in Table 2 for 2022-2024 and indicate if any of the charging stations would be  
18 the “make-ready model” as noted on page 15 of the Electrification,  
19 Conservation and Demand Management Plan 2021-2025 included in Schedule  
20 3 of the Application.  
21
- 22 **PUB-NLH-039** Hydro will contribute the funds necessary for two of the chargers in Labrador  
23 and Nalcor Energy will contribute the funds for the Churchill Falls location.  
24
- 25 a) Please confirm that the contributions towards the capital costs of the  
26 chargers will not impact customer rates on any of the systems?  
27 b) Please confirm whether the operating and maintenance costs, net of  
28 revenue, for the charging stations located in Labrador will be recovered  
29 from customers. If so, which customer groups will be responsible for the  
30 recovery of these costs?  
31
- 32 **PUB-NLH-040** For the Labrador Interconnected system Hydro is proposing to defer the future  
33 recovery of the program costs only related to incentives for the installation of  
34 residential and commercial Level 2 chargers that are capable of demand  
35 management. Is Hydro offering the program incentive towards the purchase of  
36 an EV for customers on the Labrador Interconnected system? If so, who is  
37 responsible for the recovery of this program cost?  
38
- 39 **PUB-NLH-041** Has Hydro received approval of the funding for the DCFC charging stations  
40 from the Federal Government? If this funding is not approved, how will it  
41 impact the Net Present Value Analysis included in Appendix A of Schedule 1?  
42
- 43 **PUB-NLH-042** Please confirm whether the “Existing Charging Asset O&M” costs noted in  
44 Table 2, page 7 of Schedule 1 are included in the NPV analysis. If not, please  
45 explain why not.  
46
- 47 **PUB-NLH-043** Please provide the rate assumption used in Column C “Incremental Revenues”  
48 in the Net Present Value Analysis provided in Appendix A of Schedule 1.

- 1 **PUB-NLH-044** Please confirm whether the “Program Costs” included in Column B and the  
 2 “Incremental System Costs” included in Column D of the Net Present Value  
 3 Analysis in Appendix A of Schedule 1 are the result of electrification initiatives  
 4 relating only to the Island Interconnected system. If not, please explain why  
 5 electrification initiatives for other systems would be included in the NPV  
 6 analysis.  
 7
- 8 **PUB-NLH-045** Column E “Capital Cost Recovery” of the Net Present Value Analysis in  
 9 Appendix A of Schedule 1 includes financing of the capital costs at 5.3%  
 10 (Hydro’s incremental weighted average cost of capital) over a seven year  
 11 period. Is Hydro proposing that this financing cost would also be deferred and  
 12 recovered from customers over a seven year period?  
 13
- 14 **PUB-NLH-046** The Net Present Value Analysis is prepared based on a seven year recovery  
 15 period. Newfoundland Power is proposing a recovery period of ten years for its  
 16 proposed Electrification Deferral Account. Please provide an update of the Net  
 17 Present Value Analysis assuming a recovery period of ten years.  
 18
- 19 **PUB-NLH-047** Please provide a sensitivity analysis of the estimated rate mitigation benefits,  
 20 provided in Appendix A of Schedule 1, associated with the electrification  
 21 proposals addressing potential differences in the significant assumptions such  
 22 as the rates and the load?  
 23
- 24 **PUB-NLH-048** Hydro is proposing to expand its charging network to include nine additional  
 25 sites in the province, and each site will include both a Level 3 Direct Current  
 26 Fast Charger and a Level 2 charger. Newfoundland Power, in its Electrification,  
 27 Conservation and Demand Management Application filed December 16, 2020,  
 28 is only proposing to include Level 2 chargers if they receive federal funding of  
 29 \$50,000. Please confirm whether Hydro’s Level 2 chargers are contingent on  
 30 federal funding or will Hydro be installing these chargers regardless of funding.  
 31 If so, why would Hydro’s approach be different from Newfoundland Power’s?  
 32
- 33 **PUB-NLH-049** Please address the issue of intergenerational equity with respect to the  
 34 electrification proposals and particularly the fact that costs are incurred  
 35 beginning in 2021 but the rate mitigation benefits do not materialize until later  
 36 in the period 2021 to 2034.

**DATED** at St. John’s, Newfoundland and Labrador, this 15<sup>th</sup> day of July, 2021.

**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

Per

  
 Cheryl Blundon  
 Board Secretary