NEWFOUNDLAND AND LABRADOR BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

AN ORDER OF THE BOARD

NO. P.U. 33(2022)

- 1 IN THE MATTER OF the Electrical Power
- 2 **Control Act**, *1994*, SNL 1994, Chapter E-5.1
- 3 (the "EPCA") and the Public Utilities Act,
- 4 RSNL 1990, Chapter P-47 (the "Act"), as
- 5 amended, and regulations thereunder; and
- 6
- 7 IN THE MATTER OF an application filed by
- 8 Newfoundland Power Inc. on December 16, 2020
- 9 for approvals with respect to its conservation
- 10 and demand management and electrification
- 11 programming; and
- 12
- 13 IN THE MATTER OF an application filed by
- 14 Newfoundland and Labrador Hydro on June 16, 2021
- 15 for approvals with respect to its conservation
- 16 and demand management and electrification
- 17 programming.
- 18
- 19

20 Applications

21

On December 16, 2020 Newfoundland Power Inc. ("Newfoundland Power") filed a 2021
 Electrification, Conservation and Demand Management Application (the "Newfoundland Power

- 24 Application"). This application requests approval of:
- 25 (i) a modified Total Resource Cost test for the economic evaluation of customer
 26 electrification programs;
- 27 (ii) an Electrification Cost Deferral Account to provide for deferred recovery of 2021 costs
 28 associated with implementing customer electrification programs; and
- (iii) supplemental 2021 capital expenditures in the amount of \$1,538,000 to commence
 construction of an Electric Vehicle ("EV") charging network.
- 31

The Newfoundland Power Application was copied to Newfoundland and Labrador Hydro ("Hydro") and the Consumer Advocate, Dennis Browne, K.C. (the "Consumer Advocate").

Sixty-nine Requests for Information ("RFIs") were asked by the Consumer Advocate and the
Board which were answered by Newfoundland Power on February 9, 2021. Hydro filed comments
on February 15, 2021 and the Consumer Advocate filed a submission dated March 1, 2021.

- 4 Newfoundland Power filed a reply submission on March 5, 2021.
- 5
- 6 On June 16, 2021 Hydro filed an application (the "Hydro Application") for approvals required for 7 the execution of electrification programming. This application requests approval of:
- 8 (i) a modified Total Resource Cost test, as requested by Newfoundland Power, for the
 9 economic evaluation of customer electrification programs;
- 10 (ii) revisions to the existing CDM Cost Deferral Account to allow the deferral of costs 11 associated with the delivery of the electrification programs on the Island 12 Interconnected System and the deferral of conservation and demand management 13 ("CDM") costs incurred for customers on the Labrador Interconnected System;
- (iii) revisions to the existing CDM Cost Recovery Adjustment to allow recovery of deferred
 electrification program costs; and
- (iv) supplemental 2021 capital expenditures of \$1,581,000 for the construction of nine EV
 charging stations throughout its service territory.
- 18

The Hydro Application was copied to Newfoundland Power; the Consumer Advocate; Hydro's Island Industrial customers: Corner Brook Pulp and Paper Limited, NARL Refining Limited Partnership (now Braya Renewable Fuels), Vale Newfoundland and Labrador Limited (the "Island Industrial Customer Group"); Iron Ore Company of Canada; the communities of Sheshatshiu, Happy Valley-Goose Bay, Wabush, and Labrador City (the "Labrador Interconnected Group"); Praxair Canada Inc.; and Teck Resources Limited.

25

On June 30, 2021 the Board wrote the parties in the Newfoundland Power Application to advise that additional information was required. On the same date the review schedule was set for the Hydro Application. An additional 69 RFIs were filed with respect to the Newfoundland Power Application and 129 RFIs were filed with respect to the Hydro Application. Responses to the RFIs were filed by Newfoundland Power on August 12, 2021 and by Hydro on August 13, 2021.

31

On August 30, 2021 the Board advised the parties that the Newfoundland Power Application and the Hydro Application would be joined and proceed as one matter (the "Applications") and that intervenor submissions should be filed by September 13, 2021 with replies from the utilities by September 20, 2021.

36

On September 7, 2021 the Island Industrial Customer Group requested that a technical conference be convened for Hydro to provide additional information on certain identified issues prior to the filing of submissions. Hydro requested that, if a technical conference is held, the proposed supplemental 2021 capital expenditures for EV charging stations should be considered separately to minimize the risk of losing Federal Government funding. On September 17, 2021 the Board wrote the parties to advise that a technical conference would be held and that the proposed supplemental 2021 EV charging station capital expenditures would be addressed separately. On September 29, 2021 the Board approved the proposed supplemental 2021 capital
 expenditures for Newfoundland Power and Hydro.¹

3

4 A technical conference on the Applications was held on February 1, 2022 and was attended by

representatives from Newfoundland Power, Hydro, the Consumer Advocate, the Island Industrial
Customer Group and Board staff. Following the technical conference, 50 RFIs were filed on

- 7 Newfoundland Power's Application and 76 RFIs were filed on Hydro's Application. Responses
- 8 from both utilities were filed by March 25, 2022.
- 9

On May 4, 2022 the Island Industrial Customer Group filed an expert report from Patrick Bowman
 of InterGroup Consultants Ltd. (the "InterGroup Report"). Thirteen RFIs were filed on this report
 on May 13, 2022 with responses filed on May 25, 2022.

13

On June 3, 2022 the Board requested that Newfoundland Power and Hydro provide an update on the information filed in support of the Applications.² The requested update was filed jointly by both utilities on June 17, 2022.

17

Submissions were filed by the Consumer Advocate on July 8, 2022 and by the Island Industrial
Customer Group on July 15, 2022. Reply submissions were filed by Newfoundland Power and
Hydro on July 29, 2022.

21

22 Application Evidence

23

The Applications were filed with the Electrification, Conservation and Demand Management Plan: 2021-2025 (the "2021 Plan") which was developed jointly by the utilities in consultation with the Provincial Government. The 2021 Plan includes the continuation of long-standing, costeffective customer CDM programs and introduces programs and education designed to promote electrification of provincial energy use, primarily in transportation. The proposed electrification programs and education include:

- 30 i) Utility charging infrastructure investment through a make-ready model and a utility31 charging network investment model.
- ii) A Residential EV and Charging Infrastructure program of incentives to offset the cost
 of EVs and EV chargers which are capable of demand management.
- iii) A Commercial EV and Charging Infrastructure program of incentives to offset the cost
 of EVs and EV chargers which are capable of demand management.
- iv) A Custom Electrification Program with incentives for commercial customers to replace
 equipment with more efficient electric technologies.
- v) Electrification education to help homeowners and businesses make informed
 decisions when considering EVs and other fuel switching opportunities.

¹ Order No. P.U. 30(2021).

² The Board requested an update on whether there have been any changes in the market conditions, including changes to any Federal or Provincial government funding programs, for electrification that may affect the information provided in support of the Applications.

vi) Customer research, including a *Custom Fleet Pilot Program* to investigate how to costeffectively overcome the adoption barriers associated with fleet EVs and investigate opportunities to monitor and manage system peak impacts associated with electrifying large vehicle loads, an *EV Demand Response Pilot Program* to assess a number of approaches to control the demand impacts of EVs, a *Small Business Direct Install Pilot Program* to inform and assist with energy efficient upgrades, and a *Heat Pump Load Research Pilot Program* which will provide valuable insights into the demand and energy impacts of ductless mini-split heat pumps.³

10 The 2021 Plan provides information with respect to the CDM and electrification initiatives and includes, among other things, program descriptions and forecasts, a survey of North American 11 12 electrification initiatives and economic evaluation practices, a demand response assessment and 13 stakeholder consultation summaries and letters of support. The 2021 Plan also includes a report 14 completed by Dunsky Energy Consulting in 2019 setting out the results of a comprehensive 15 assessment of the market potential of conservation and electrification in the Province (the "Dunsky Study"). The Dunsky Study applied detailed bottom-up modeling tools to quantify 16 17 energy and demand impacts from multiple CDM sources, including energy efficiency, demand 18 response, heating fuel switching and EVs over the period 2020 to 2034. The Dunsky Study also 19 set out the value and importance of utility investment in utility EV charging station infrastructure. 20 Information with respect to investment models for this infrastructure is included in the 2021 21 Plan.

22

1

2

3

4

5

6

7

8

9

23 The Applications propose a modified Total Resource Cost ("mTRC") test that would be used by 24 the utilities for assessing the cost-effectiveness of the electrification programs. The Applications 25 state that this test is conceptually similar to the Total Resource Cost ("TRC") test approved by the 26 Board for the economic evaluation of CDM programs except that it includes non-electrical 27 benefits such as the customer benefits of lower fuel and maintenance costs associated with 28 owning an EV. A survey with respect to the electrification and CDM program economic evaluation 29 practices for North American jurisdictions was provided with the Applications. A net present 30 value ("NPV") analysis was conducted to assess the customer rate impacts of the electrification 31 initiatives. This analysis showed a rate mitigating benefit for customers of approximately 0.5 32 cents per kWh by 2034, which equates to \$100 in reduced annual electricity charges for an average residential customer with electric heat.⁴ On this basis the Applications state that the rate 33 34 mitigating benefit of the Customer Electrification Portfolio is consistent with the delivery of least-35 cost reliable service.

36

The proposed 2021 supplemental expenditures for EV charging station infrastructure are addressed in the utility evidence included with the Applications. These capital expenditure proposals were addressed in a separate proceeding and supplemental 2021 EV charging station

³ 2021 Plan, pages 14 to 23.

⁴ An updated analysis filed in March 2022 showed a rate mitigation benefit of approximately 0.9 cents per kWh and an annual reduction in electricity charges for an average residential customer of \$180. See TC-PUB-NP-005(1st Revision).

capital expenditures were approved in the amount of (i) approximately \$1.5 million for
 Newfoundland Power for ten EV charging stations, and (ii) \$1.6 million for Hydro for six EV
 charging stations on the Island and three in Labrador.⁵

4

5 The Applications also request approval to defer and recover the costs associated with the 6 electrification proposals though Newfoundland Power and Hydro proposed different 7 approaches. Draft deferral accounts and/or revisions to existing accounts to provide for the 8 deferral and recovery of the costs associated with implementing the customer electrification 9 programs were included with the Applications.⁶

10

11 Submissions

12

13 The Consumer Advocate filed three submissions relating to the Applications. The first submission, 14 dated March 1, 2021, related to the Newfoundland Power Application, the second, dated

15 September 22, 2021, concerned the 2021 capital expenditures for both utilities for EV charging

16 infrastructure, and the third, dated July 8, 2022, related to the joined Applications. In each

submission the Consumer Advocate opposed involvement by the utilities in electrificationbeyond that related to traditional roles such as rate design and customer education programs.

19

The Consumer Advocate stated in his March 1, 2021 submission that he supports electrification initiatives that are implemented in a manner that optimizes value to consumers while minimizing

- 22 risks. The Consumer Advocate commented on the significance of the rate impact of the proposed 23 electrification plan, the proposed 2021 capital expenditures for EV chargers, and whether there 24 was a need for the utilities to provide incentives for EV purchases. The Consumer Advocate 25 submitted that it is not clear that customers will benefit from the electrification plan given that, 26 if rates are fixed by the Provincial Government as part of rate mitigation, the rates will not be 27 reduced for customers but rather the Provincial Government funding will be reduced. The 28 Consumer Advocate noted that, while EVs are expected to reach price parity with internal 29 combustion vehicles in four years, it will be some period before customers see any rate mitigation 30 benefit from the proposed electrification program. The Consumer Advocate also questioned the 31 need for any EV incentive beyond that provided by the Federal Government. According to the 32 Consumer Advocate there is no evidence that the proposed electrification program was
- 33 discussed with customers or that customers value the benefits and risks relative to the costs of
- 34 the program.
- 35

36 In his September 22, 2021 submission relating to the EV charging infrastructure capital

37 expenditures the Consumer Advocate stated that he supports electrification that is beneficial to

- 38 ratepayers and that electrification has rate mitigation potential but the proposed electrification
- 39 plan does not provide a proper balance of ratepayer costs and risks. The Consumer Advocate did

⁵ Order No. P.U. 30(2021). Recovery from customers for the Island EV charging stations was approved net of Federal Government funding. The Board determined that the matter of how the approved expenditures would be recovered from customers would be addressed in a subsequent order.

⁶ In Order No. P.U. 3(2022) the Board approved the proposed Electrification Cost Deferral Account filed with Newfoundland Power's 2022/2023 general rate application.

not support recovery of the costs of EV charging infrastructure from customers, stating that utility
 construction, ownership and operation of charging station infrastructure is an unregulated
 business not subject to the Board's jurisdiction.

4

5 The Consumer Advocate's July 8, 2022 submission noted his earlier submissions opposing utility 6 involvement in electrification and provided the following comments on the market update filed 7 jointly by Newfoundland Power and Hydro:

- 8 (i) It is not evident that there is a need for the utilities to provide incentives when EVs 9 will reach cost parity with internal combustion vehicles in three years, both the 10 Federal and Provincial Governments are providing EV purchase incentives, and the 11 Federal Government is mandating EV sales.
- (ii) It is not clear why the utilities are embarking on a program to accelerate electricity
 consumption in the Province when the Labrador Island Link is still not in commercial
 operation and it is unclear when it will be. There is no evidence that excess energy will
 be reliably available to Island consumers next winter.
- 16(iii)The extraordinary increase in oil and gasoline prices provides a significant incentive to17purchase EVs which nullifies the need for the utilities to accelerate EV adoption.
- (iv) The City of St. John's is planning the installation of 26 EV charging stations and this,
 combined with installations by other public and private entities, may nullify the need
 for the utilities to own and operate EV charging stations.
- (v) Electricity consumers can ill-afford a near-term rate increase for an electrification
 program which is rationalized by "dubious" long-term rate mitigating benefits.
- 23 (vi) The Applications do not meet the requirements in the Capital Budget Application24 Guidelines (Provisional).

(vii) The Provincial Government's ongoing review of the Board's oversight of the electricity sector could significantly impact the Board's jurisdiction and the utilities' involvement in activities not directly related to the supply and delivery of electricity.

28

The Consumer Advocate did not provide any comments in his submissions on the request for approval of the mTRC test for economic evaluation of electrification programs or on the proposed cost deferral.

32

33 The Island Industrial Customer Group's submission of July 15, 2022 was limited to the proposed 34 use of the mTRC test for evaluation of electrification initiatives, on the basis that the proposed 35 capital expenditures for EV charging infrastructure had already been approved and that they took 36 no issue with the approvals relating to revisions to the existing CDM Cost Deferral Account and 37 CDM Cost Recovery Adjustment to include electrification costs. The Island Industrial Customer 38 Group supported electrification and conservation and demand management but stated that, with 39 the potential rate impacts of Muskrat Falls looming, the focus for these programs should be to 40 aid rate mitigation. The Island Industrial Customer Group submitted that it is imperative that any 41 approved initiatives benefit both the utility and non-participating customers in the short term 42 and not just potentially the longer term, where benefits to non-participating customers are 43 uncertain at best. They also submitted that the proposed mTRC test, if approved, will allow Hydro

to proceed with programs that will exacerbate Muskrat Falls' rate impacts rather than mitigatethem.

2

4 With respect to the mTRC test the Island Industrial Customer Group submitted that, as the test 5 measures the impact on the utility and participating customers collectively, it fails to ensure that 6 there is benefit to the utility and non-participating customers. A program can pass the mTRC test 7 if it provides significant benefits to participating customers but leaves the utility and non-8 participating customers either neutral or worse off. The Island Industrial Customer Group 9 submitted that the primary screening test for both CDM and electrification initiatives should be 10 based on resource cost/value. They propose that the mTRC test should be used as a secondary test to screen electrification programs with the primary tests being the Program Administrator 11 12 Cost ("PAC") test, currently approved for CDM programs, and the NPV test which is being 13 proposed by the utilities as a secondary test for electrification programs. Both the PAC and the 14 NPV tests focus on utility economics to determine whether a program should proceed. The mTRC 15 test for electrification programs and the TRC test for CDM programs should, in the opinion of the 16 Island Industrial Customer Group, be applied as a second step in the evaluation process. In their 17 view, this two-step process ensures that the program is cost-effective for both the utility and the 18 customer. The third step would be to evaluate the rate impacts over the life of the program and 19 to focus on program design to manage the program's distributional effects to ensure fairness 20 between customers.

21

22 The Island Industrial Customer Group submitted that, given the unique challenges on the Island 23 system created by the Muskrat Falls Project, the primary objective for any program has to be rate 24 mitigation in the short term as opposed to costs and benefits over the life of the program. Determining a program's value over the life of the program can result in projects that will cause 25 26 a rate increase in the short-term to obtain future benefits, which would exacerbate the negative 27 rate outlook caused by the Muskrat Falls Project. The Island Industrial Customer Group submitted 28 that electrification programs should show a positive net revenue impact from the outset or, at 29 worst, a zero net rate impact to achieve Government's primary objective for rate mitigation on 30 the Island system. According to the Island Industrial Customer Group analysis should be 31 completed in five-year increments and programs should only be approved if they have a positive 32 net revenue impact from the beginning or, at worst, have a zero-rate impact at implementation 33 and a positive net revenue impact within no more than five years.

34

35 In its reply dated July 29, 2022 Newfoundland Power stated that the objective of the 36 electrification program is to provide a potential rate mitigating benefit by encouraging the 37 adoption of technologies that maximize domestic energy usage while enabling the utilities to 38 manage impacts on peak demand. Newfoundland Power noted that the Dunsky Study 39 determined that transportation electrification represents the single largest opportunity to 40 maximize domestic energy usage, with the potential to more than triple the number of EVs in the 41 Province by 2034. According to Newfoundland Power the initiatives are intended to address the primary barriers to the adoption of EVs, including the upfront costs of purchasing an EV and 42 43 access to public charging. Newfoundland Power stated that the electrification initiatives included 44 in the Applications are forecast to provide additional net revenues by 2034 which will provide a

rate mitigating benefit of 0.9 cents per kWh by 2034. This equates to annual electricity bill savings of \$180 in 2034 for the average residential customer with electric heating. Newfoundland Power noted that the Dunsky Study determined that system costs will increase as capacity-related system costs increase due to an increase in peak demand resulting from unmanaged charging of EVs unless there is utility involvement. Newfoundland Power submitted that market intervention by the utilities is required to achieve the potential rate mitigating benefit.

8 Newfoundland Power submitted that the combined use of the mTRC test and the NPV analysis 9 ensures that the electrification incentive programs are sufficiently economic to enable customer 10 participation and that, combined, they will provide a rate mitigating benefit for all customers. 11 Newfoundland Power explained that the mTRC test determines whether electrification incentive 12 programs would provide an economic benefit to participating customers and whether the utility's 13 cost of delivering the program does not exceed the benefit provided to customers. 14 Newfoundland Power stated the test is conceptually similar to the TRC test currently approved 15 to evaluate CDM programs but also accounts for non-electrical benefits, including the lower fuel 16 and maintenance costs of an EV, while the TRC test includes only electrical customer benefits. 17 Newfoundland Power stated that the mTRC test was developed based on the principles outlined 18 in the National Standard Practice Manual ("NSPM"), the authoritative source on best practices 19 for evaluating customer programs.⁷ According to Newfoundland Power the mTRC test aligns with 20 the provincial goal of rate mitigation by ensuring that the adoption of EVs and other electric 21 technologies to maximize domestic energy usage is done in a cost-effective way for customers. 22

23 Newfoundland Power submitted that the use of the mTRC test to evaluate the cost-effectiveness 24 of electrification programs is consistent with existing Board practices for CDM programs and 25 sound utility practice and that the combined use of the mTRC test and supporting NPV analysis 26 will ensure all customer electrification initiatives are implemented in a cost-effective manner that 27 achieves rate mitigating benefits for customers. According to Newfoundland Power the approval 28 of an economic test rather than specific programs provides the utilities with flexibility to adopt 29 programs in a timely manner in response to changing market conditions. Economic test results 30 and changes to planned programs would be reported annually to the Board consistent with the 31 current approach to CDM programs.

32

Newfoundland Power provided the following comments on the Consumer Advocate's July 8,2022 submission:

(i) In terms of the EV incentives, cost parity has been delayed beyond 2025 by up to two
 years and the incentives would reduce the price gap by about half, comparable to
 other jurisdictions. The analysis accounted for the federal incentives and the
 provincial incentives complement the proposed incentives. Other jurisdictions have
 successfully combined EV incentives with mandates similar to the planned zero emission vehicles mandate.

⁷ National Standard Practice Manual for Benefit Cost Analysis of Distributed Energy Resources, August 2020. This manual is a publication of the National Energy Screening Project.

- (ii) The customer benefits of accelerating EV adoption are long-term in nature. EVs are forecast to add 0.5 GWh and 2.4 GWh of load in the first two years which is not expected to have a material impact on near-term supply planning or system costs.
- 4 (iii) The Dunsky Study and recent local research determined that fuel prices are not a 5 primary determinant as to whether customers will buy an EV.
- 6 (iv) The planned City of St. John's chargers supplement the utility charger infrastructure
 7 and the Dunsky Study determined that there is considerable capacity for additional
 8 charger deployment in the Province beyond that planned by both utilities.
- 9 (v) The long-term benefits of the proposed electrification initiatives of 0.9 cents per kWh
 10 in 2034, or \$180 annually, are greater than the short-term costs of 0.006 cents per
 11 kWh in the first year of implementation, or \$1.20 annually.
- (vi) The Capital Budget Application Guidelines apply to capital expenditure applications
 and the Applications no longer include proposals for capital expenditures.
- (vii) Until the conclusion of Government's review of legislation governing Board oversight
 of the electricity sector the Board continues to regulate pursuant to the existing
 legislative framework.
- 17

1

2

3

18 In relation to the Island Industrial Customer Group's submission Newfoundland Power 19 commented that the use of the PAC test is not applicable to electrification programs as the PAC 20 test is designed to evaluate whether incentive programs provide a reduction in system costs that 21 is greater than the planned program investment. Newfoundland Power stated that an 22 electrification program cannot be designed in a manner that would pass a PAC test. 23 Newfoundland Power also submitted that the NSPM does not recommend a Rate Impact 24 Measure ("RIM") test to assess cost effectiveness or rate impacts as such a test provides an 25 indication of whether a program will have a negative or positive impact on rates, but does not 26 define the magnitude of the impact. According to Newfoundland Power an NPV analysis is more 27 appropriate to determine customer rate impact as a whole as it identifies both the directionality 28 and magnitude of the change in customer rates.

29

30 Newfoundland Power also submitted it is appropriate to consider a long-term timeframe for 31 evaluating the cost-effectiveness of customer electrification initiatives rather than a short-term 32 timeframe as suggested by the Island Industrial Customer Group. According to Newfoundland 33 Power focusing on minor short-term rate impacts to the exclusion of long-term benefits would 34 effectively preclude the implementation of initiatives that could maximize domestic energy usage 35 for customers as the benefits of any initiative that requires market transformation would take 36 time to achieve. The use of a long-term timeframe is also consistent with the recommendations 37 of the NSPM and regulatory practice in this jurisdiction. Newfoundland Power submitted that the 38 customer electrification initiatives included in the 2021 Plan are consistent with its statutory 39 obligation to provide reliable service to its customers at the lowest possible cost and should be 40 approved. According to Newfoundland Power the proposals are consistent with the Board's 41 recommendations in the Rate Mitigation Reference Report and industry practice and that existing 42 Federal and Provincial Government initiatives will be complementary to the initiatives included 43 in the 2021 Plan.

In its reply dated July 29, 2022 Hydro submitted that its application is consistent with generally accepted public utility practice as required by section 4 of the EPCA and, if approved, will result in rate mitigating benefits for customers over the long term and is, therefore, consistent with Hydro's obligation to provide least-cost, reliable service as required by the EPCA. According to Hydro the evidence justifies the use of the mTRC test supported by an NPV analysis for evaluation of electrification programs to ensure benefits to customers over the long term.

8 Hydro submitted that the approval of its application will promote long-term rate mitigation 9 benefits for customers and allow for load management as the number of EVs continue to grow 10 in the Province. As a result the proposals should not be impacted by the in-service date of the Labrador Island Link as suggested by the Consumer Advocate. While Hydro agrees with the 11 12 Consumer Advocate that market conditions have changed since the filing of the 2021 Plan, in its 13 view these changes have not materially affected the business case for proceeding with 14 electrification but, in fact, support the proposed approach. Hydro also submitted that the 15 commitment by the City of St. John's to install Level 2 chargers will support electrification but will 16 not displace the need for fast chargers for long distance travel as proposed in the 2021 Plan.

17

Hydro also responded to the proposed time period for evaluation of the cost effectiveness of electrification programs suggested by the Island Industrial Customer Group. Hydro submitted that this time period is based on the judgement of their expert, Mr. Bowman, that rate mitigation is the top policy priority for this jurisdiction but no evidence was provided to support this conclusion nor was any evidence provided to show it is consistent with generally accepted public utility practice. Hydro noted that Mr. Bowman acknowledged that, assuming the forecast outcomes were accurate, the 2021 Plan is worth pursuing, albeit with some concerns addressed.

26 Hydro submitted that a survey of current utility practice confirmed that the mTRC test is 27 consistent with the approach of other utilities in conducting overall cost-effective assessments 28 of electrification programs and that letters of support from the Government of Newfoundland 29 and Labrador indicate the 2021 Plan aligns with this jurisdiction's policy objectives. Hydro 30 submitted that the approach proposed by the expert for the Island Industrial Customer Group to 31 evaluate cost effectiveness by the use of the PAC test and RIM test as primary tests with the 32 mTRC test being a secondary test is not consistent with generally accepted public utility practice 33 and is inconsistent with the NSPM. Hydro noted that the NSPM states that most jurisdictions that 34 have adopted the PAC test have done so primarily for energy efficiency resources. Hydro also 35 noted that its consultant for the electrification model confirmed that the PAC test is typically 36 used in energy conservation programs and no other customer had asked for the use of the PAC 37 test to evaluate load-building programs. Hydro submitted that the rationale for the use of the 38 RIM test is addressed by their proposal to use NPV analysis. Hydro also noted that the NSPM states there are limitations with the use of the RIM test. 39

40

41 Board Findings

42

43 Newfoundland Power and Hydro have delivered joint, multi-year CDM programs for customers

44 since 2009. The Applications propose the continuation of similar CDM initiatives but also propose

the introduction of utility electrification initiatives. Electrification is a relatively new trend for 1 2 North American utilities and is increasingly becoming part of utility customer energy program 3 portfolios.⁸ As noted in the 2021 Plan, EVs and other technologies are still emerging and public 4 awareness and understanding of the benefits of EVs are in the formative stages.⁹ The potential 5 benefits of electrification initiatives for this Province was raised in the Board's 2019 rate 6 mitigation review. With the commissioning of the Muskrat Falls Project and the Labrador Island 7 Link, the Island Interconnected system is forecast to have surplus electricity available. At the 8 same time the recovery of the costs of the Muskrat Falls Project from customers on the Island 9 Interconnected system is expected to place significant upward pressure on rates. Given this, the Board concluded in the rate mitigation review that maximizing domestic load through 10 11 electrification, improving energy efficiency and using demand response to reduce peak load and 12 allow for increased export sales will likely lead to the best outcomes for customers on the Island Interconnected system.¹⁰ The Board recommended that the utilities and Government should 13 develop a comprehensive and coordinated approach to develop the most appropriate programs 14 15 for the Province.

16

17 The Board continues to believe that appropriate electrification initiatives combined with 18 measures to reduce peak load are likely to lead to positive outcomes for customers in the long 19 term. However, unlike conservation and demand programming which aims to decrease energy 20 usage, electrification initiatives are intended to increase electricity consumption which has the 21 potential to increase costs for individual customers as well as the system. As such, before the 22 recovery of the costs of such programs from customers is approved, the utilities must show that 23 the proposed approach is appropriate in the circumstances and consistent with legislative 24 requirements.

25

26 While other jurisdictions have provided specific policy direction with respect to electrification 27 initiatives the legislation in this Province has not been amended or updated to do the same. 28 Although letters of support from the Provincial Government were filed with the Applications the 29 Board is required to implement the power policy set out in the EPCA which requires the provision 30 of service at the lowest possible cost consistent with reliable service.¹¹ In addition, the Board is required to apply tests which are consistent with generally accepted sound public utility 31 32 practice.¹² As the Board has stated previously with respect to mini-split heat pump CDM 33 initiatives, approaches that do not result in overall system savings and savings to all customers 34 should not be approved.¹³

35

36 The matters to be addressed in this order include the requests for approvals with respect to: i)

37 the proposed test for the economic evaluation of customer electrification programs, ii) EV

⁸ 2021 Plan, page 3.

⁹ 2021 Plan, page 14.

¹⁰ Rate Mitigation Options and Impacts: Muskrat Falls Project, February 7, 2020, page iii.

¹¹ **EPCA**, section 3(b).

¹² EPCA, section 4.

¹³ Order No. P.U. 18(2016), page 47. See Order No. P.U. 7(1996-7), pages 54 to 55, for similar comments related to DSM initiatives.

charging infrastructure, and iii) deferral accounts to allow deferral and recovery of CDM and
 electrification program costs. These matters are addressed below.

3

Economic Evaluation of Electrification Programs

4 5

6 The Applications do not request approval of the electrification program or specific electrification 7 initiatives but rather propose approval of the methodology by which the utilities will evaluate the 8 cost-effectiveness of electrification programming. According to the utilities this approach 9 ensures electrification programming is cost-effective for both participants and non-participants over the long-term as it allows the utilities to adjust programming in response to changing market 10 conditions.¹⁴ The Applications request approval to use the mTRC test in the economic evaluation 11 12 of the electrification programs. According to the utilities the use of the mTRC test with supporting 13 NPV analysis is consistent with sound public utility practice and existing practice for CDM 14 programs and will ensure benefits to customers on the Island interconnected system over the 15 long-term.¹⁵

16 While the utilities submitted that the mTRC test is consistent with sound utility practice the Board

17 notes that, based on the evidence, there is currently no Canadian province which assesses the 18 cost-effectiveness of electrification programming.¹⁶ American examples were provided of where 19 an mTRC test is used but there was no evidence presented to demonstrate that these examples

20 are relevant to the circumstances in this Province. The Board notes that, according to the

21 evidence filed by the Island Industrial Customer Group, a variety of tests and approaches, other

than the mTRC test, have recently been utilized in Canada for the evaluation of CDM and

23 electrification programming.¹⁷

24

25 The utilities also argue that the mTRC test was developed based on the principles outlined in the 26 NSPM. The NSPM was developed to help guide the development of jurisdictions' cost-27 effectiveness test(s) for conducting benefit-cost analysis of distributed energy resources ("DERs").¹⁸ The Board acknowledges that a jurisdiction specific test may be used to reflect the 28 29 policy objectives in a jurisdiction; however, it must be shown that the proposed test is 30 appropriate. As discussed earlier the power policy objectives in this Province required to be 31 implemented by the Board pursuant to the EPCA require the provision of least-cost service. As 32 such the utilities must show that the mTRC test is designed to assess whether the proposed 33 electrification programming is consistent with this objective. The Board is not persuaded that the

34 utilities have shown that this is the case.

¹⁴ Hydro Submission, page 2 and Newfoundland Power Submission, page 11.

¹⁵ Hydro Submission, page 6 and Newfoundland Power Submission, page 16.

¹⁶ Applications, Schedule I, page 3 of 3; PUB-NLH-021, page 3; PUB-NP-024 and PUB-NP-052.

¹⁷ TC-PUB-IC-005.

¹⁸ The NSPM sets out i) the principles for assessing the cost-effectiveness potential DER investments, ii) a multi-step process for developing or informing a jurisdiction's primary test (which should account for that jurisdiction's applicable policy goals and objectives), and iii) guidance on when and how to use secondary tests.

While the Board accepts that the proposed mTRC test is conceptually similar to tests approved 1 2 for CDM programs, there is an important difference in these tests.¹⁹ The mTRC test, unlike the 3 TRC test used in CDM program evaluation, considers non-electric customer benefits, including 4 the lower fuel and operating costs associated with an EV. The Board accepts the evidence of the 5 Island Industrial Customer Group that customer-specific tests, such as the mTRC test, are not 6 typically used as screening tools to determine cost-effectiveness as the focus of such tests is to 7 determine the scale of incentives that may be required to get customers to participate.²⁰ The 8 Board notes the Island Industrial Customer Group's view in relation to the mTRC test: 9 10 While the test measures the impact on the utility and participating customers collectively, 11 it fails to ensure that there is a benefit to the utility and non-participating customers 12

13 14 15 individually. Because of this, a program can pass the TRC/mTRC test if it provides significant benefits to participating customers but leaves the utility and non-participating customers either neutral or even materially worse off.²¹

16 The Board accepts that the mTRC test can be a useful tool for the utilities to assess whether a 17 program is likely to be economic for participating customers. However it is not clear to the Board 18 that this test is useful in assessing whether a program is beneficial for customers who do not 19 participate in the program or for the system generally. In the case of the utility EV incentives, a 20 program may pass the mTRC test where there are large non-electric benefits for a small group of 21 customers and the costs are shared by all customers, the majority of whom do not participate. 22 As a result the Board is not satisfied that the use of the mTRC test, on its own, is useful to 23 demonstrate whether the program is consistent with the provision of least-cost reliable service.

24

25 The utilities submit that the use of the mTRC test with supporting NPV analysis would ensure that 26 electrification initiatives are implemented in a cost-effective manner that achieves rate 27 mitigating benefits for customers. The updated NPV analysis estimates total rate mitigating benefits of 0.9 cents per kWh for Newfoundland Power customers by 2034.²² The Board notes, 28 however, that the estimated benefits are subject to variances in a number of key assumptions, 29 including future rates and sales estimates.²³ Sensitivity analyses shows that relatively small 30 31 changes in several key assumptions can impact the estimated rate mitigation benefits 32 significantly over time. The Board also notes that the Dunsky Study stated that electricity rates, 33 avoided costs and carbon pricing over the 15-year study period are subject to notable 34 uncertainty.²⁴ The Board is concerned about the potential impact of changes in key assumptions 35 considering the uncertainties associated with the development and uptake of electrification 36 technologies and the implications of the Muskrat Falls Project for the Island Interconnected 37 system. In addition the Board shares the concerns of both the Consumer Advocate and the Island

¹⁹ See Order No. P.U. 18(2016), pages 7 to 8, approving the TRC test and the PAC test for the evaluation of the cost effectiveness of customer CDM programs.

²⁰ TC-PUB-IC-003.

²¹ Island Industrial Customer Submission, page 3 (underlining in quote).

²² PUB-NP-009 (March 2022 Update) (1st Revision) (see TC-PUB-NP-005(Rev. 1)) and TC-PUB-NLH-004 set out Hydro's updated NPV analysis.

²³ PUB-NP-065, Attachment A and PUB-NLH-047.

²⁴ Dunsky Study, page iv.

1 Industrial Customer Group as to the near-term rate impacts of the electrification initiatives. While 2 the rate increases in the early years are not forecast to be large the Board has concerns as to 3 whether these measures should be approved considering the other pressures on rates at this 4 time and the uncertainties as to the estimated long-term benefits.

5

6 The Board also notes that the supporting NPV analysis provided is for the combined portfolio of 7 electrification initiatives rather than the individual programs. This combined analysis does not 8 demonstrate whether all aspects of the electrification program contribute to the estimated rate 9 mitigating benefits and does not show the extent to which some initiatives may be more or less beneficial than others. For example, Newfoundland Power's NPV analysis is combined for the EV 10 infrastructure and the residential incentives for EVs and EV chargers.²⁵ This analysis shows that 11 12 collectively these initiatives make up the majority of the rate mitigating benefits but does not 13 show the extent to which the estimated rate mitigating benefits are the result of the EV charging 14 infrastructure rather than the residential incentives for EVs and EV chargers. The utilities advised 15 that they could not provide the rate impacts separately as the electrification initiatives and associated sales estimates are interdependent.²⁶ 16

17

18 The utilities subsequently provided a pro forma NPV analysis based on the findings of the Dunsky

19 Study which estimated marginal rate mitigation benefits associated with EV incentives.²⁷ This

suggests that utility EV infrastructure expenditures may offer significantly more rate mitigation 20

21 potential than EV incentives. As noted in the Dunsky Study EV incentives may potentially increase

EV load but they have significantly lower cost-effectiveness than infrastructure deployment.²⁸ 22

23 The Dunsky Study went further and stated:

24 25

26

27 28 Although incentive programs could accelerate adoption in the short-term, they have limited long-term impact on the market and may not be a suitable approach for intervention.29

29 According to the Dunsky Study EV incentives are typically provided at the federal or provincial level and there are limited case studies of utilities providing EV purchase incentives.³⁰ Based on 30 31 the evidence there is no Canadian precedent for the recovery of EV incentive costs from utility 32 customers as EV incentives are typically matters of public policy in Canada and, as such, funded by government and not ratepayers.³¹ The evidence in this proceeding raises significant concerns 33 34 in relation to whether it would be appropriate for the costs of incentives for EVs to be recovered

35 from customers in this Province at this time.

²⁵ PUB-NP-064 (March 2022 Update) (1st Revision), page 1 (see TC-PUB-NP-005(Rev. 1)). It also includes pilot initiatives and deferred planning costs.

²⁶ PUB-NP-064.

²⁷ TC-PUB-NP-001 and TC-PUB-NLH-001.

²⁸ Dunsky Study, pages 105, 109 and 112.

²⁹ Dunsky Study, Schedule C, page 116.

³⁰ Dunsky Study, Schedule C, page 111.

³¹ Applications, Schedule B, pages 1 to 3 and PUB-NP-027. In early 2021 the Governments of Nova Scotia and Prince Edward Island announced that they would fund EV rebate programs.

The Board concludes that the request by the utilities for approval to use the mTRC test in the 1 economic evaluation of electrification programming with supporting NPV analysis should not be 2 3 approved at this time. The utilities have not shown that the proposed approach would ensure 4 that electrification programming is consistent with the provision of least-cost service or that it is consistent with generally accepted sound public utility practice. Based on the evidence the mTRC 5 6 test is not used in Canada and it is not a good measure of the impacts of initiatives on non-7 participating customers or the system. While the mTRC test may be appropriate as a part of a 8 more comprehensive approach to the evaluation of electrification initiatives involving a number 9 of tests, approval of this test alone is not justified at this time. Further the Board does not believe that the NPV analysis provided is adequate additional support for the proposals in the 10 Applications. The estimated rate mitigation benefits are negative in the short-term and the 11 12 forecasted long-term benefits are based on assumptions which are subject to significant 13 uncertainties as to the development and uptake of electrification technologies. In addition there 14 are ongoing uncertainties with respect to the Muskrat Falls Project and its impact on the Island 15 Interconnected system and its customers. The NPV analysis also does not quantify the rate 16 mitigation benefits of the initiatives proposed as part of the program.

17

18 The Island Industrial Customer Group suggested an alternate approach be used for the evaluation of both CDM and electrification programming.³² While the Board believes that the alternate 19 20 approach may have merit, the Board is not satisfied that the suggested changes have been 21 sufficiently tested in this matter. The Board notes the concerns raised by the utilities with respect 22 to the suggested use of the PAC and RIM tests for electrification programming. While these tests 23 may eventually be accepted as an aspect of the evaluation of electrification programs by the 24 utilities in this Province, the Board is not satisfied the record in this proceeding supports the 25 approval of these tests for utility evaluation of electrification programming at this time. With 26 respect to CDM programming the Board agrees with Newfoundland Power that the approved 27 TRC and PAC tests are consistent with industry practice and have resulted in CDM programs 28 which provide significant benefits for customers in this Province.

29

30 While the mTRC test will not be approved the Board believes that there may be electrification initiatives in the 2021 Plan which may be beneficial for the utilities and customers. For example, 31 32 the proposed residential and commercial incentives for EV chargers would promote the purchase of EV chargers with load management capabilities and it is clear that load management is 33 34 essential to avoid the capacity-related costs associated with EV adoption.³³ In addition the 35 information to be gathered through the customer research and pilot programs may be useful in 36 the development and management of utility electrification programs for this Province. The Board 37 also notes that there may be other initiatives which may have benefits at this time such as the 38 Island Industrial Customer Group's suggestion to foster the expansion of the industrial

 ³² A three-step approach was suggested: 1) the PAC test and the NPV test as primary tests, 2) the TRC test and mTRC test as secondary tests for CDM and electrification respectively, and 3) a RIM test as the third step.
 ³³ Dunsky Report, page 116; PUB-NP-037, pages 1 and 3; PUB-NLH-006, pages 3 and 4; Newfoundland Power Application, Evidence, Exhibit 2, page 2, Figure 1; PUB-NP-009 (March 2022 Update) (1st Revision) (see TC-PUB-NP-005 (Rev. 1)) and PUB-NLH-006.

interruptible energy.³⁴ While the Board will not approve the Applications the Board invites the 1 2 utilities to apply for approval to recover the cost of specific electrification initiatives which are 3 shown to be appropriate for this Province at this time.

4

5 **EV Charging Infrastructure**

6

7 A number of requests for approvals with respect to utility EV charging infrastructure have been 8 filed with the Board by Newfoundland Power and Hydro. Before the filing of the Applications, 9 Hydro applied for approval of 2020 capital expenditures for the construction and installation of 10 14 EV charging stations across the Island on the basis that the costs, net of federal funding, would be contributed by Hydro and would not be included in rate base or recovered from customers. 11 12 The Board approved 2020 capital expenditures in the amount of \$2.1 million and ordered that 13 the associated costs not be included in Hydro's rate base and not be recovered from customers.³⁵ 14 Hydro has now requested in this proceeding that the Board approve the deferral and recovery of 15 the operating costs, net of revenues, associated with the approved 2020 capital expenditures for EV charging infrastructure.³⁶ As noted earlier the capital expenditures proposed in the 16 17 Applications for EV charging infrastructure were approved in a separate proceeding with the 18 matter of how the costs would be recovered from customers to be addressed in a subsequent 19 order.

20

21 The Newfoundland Power Application and the Hydro Application request different accounting 22 treatment of the EV charging station infrastructure expenses. Newfoundland Power proposed 23 that the capital expenditures go into rate base as capital assets while Hydro proposed that the 24 capital expenditures be recovered through its proposed Electrification, Conservation Demand Management Cost Deferral Account.³⁷ In its decision and order approving the 2021 capital 25 26 expenditures for charging station infrastructure the Board found that that the deployment of EV 27 charging stations throughout the Province was an important part of the development of an 28 electrification program and that investment by the utilities in EV charging infrastructure was, at 29 the time, the best available tool to contribute to increased sales of EVs, increased revenues and, 30 with appropriate load management measures, reduced costs for customers.³⁸ The Board noted the rapidly changing circumstances with respect to electrification and stated future applications 31 32 for the approval of capital expenditures for additional EV charging station infrastructure should 33 include updated information showing that the expenditures continue to be justified. The Board 34 stated that the issue of how the costs will be treated for accounting purposes and recovered from 35 customers would be addressed in the proceeding relating to the utilities' electrification 36 applications.

³⁴ On September 15, 2022 Hydro filed an application to revise its Island Industrial customer non-firm rates to include the market value of exports as an option for determining the non-firm rate.

³⁵ Order No. P.U. 7(2020).

³⁶ Hydro Application, Schedule 1 Evidence, page 6 and Appendix B Electrification, Conservation and Demand Management Cost.

³⁷ Hydro's deferral account would be included in rate base.

³⁸ Order No. P.U. 30(2021), Reasons for Decision, page 13.

Newfoundland Power subsequently requested approval of 2022 capital expenditures for the 1 2 construction of ten additional EV charging stations as part of its 2022 Capital Budget Application. 3 The Board determined that these expenditures would be considered in a separate process after the conclusion of Newfoundland Power's electrification application.³⁹ Newfoundland Power also 4 5 requested approval of 2023 capital expenditures for the construction of three additional EV 6 charging stations as part of its 2023 Capital Budget Application which is currently before the 7 Board. Hydro did not request approval of capital expenditures for EV charging stations in its 2022 8 and 2023 Capital Budget Applications but advised that it planned to file for approval of 9 supplemental 2023 expenditures for EV charging stations.⁴⁰ 10 A number of outstanding issues remain with respect to utility EV charging station infrastructure. 11 While approval was granted for 2020 and 2021 capital expenditures for utility EV charging 12 13 infrastructure, there are outstanding issues with respect to the accounting treatment and

- 14 recovery of the costs associated with this infrastructure. In addition there has not yet been a 15 determination with respect to proposals from Newfoundland Power for EV charging stations for 2022 and 2023.⁴¹ The Board believes the issues associated with utility EV charging station 16 17 infrastructure expenditures should be considered together based on updated information as to 18 whether the proposed expenditures should be approved and, if so, how the expenditures should 19 be treated for accounting purposes and recovered from customers. As such the utilities may 20 apply for the necessary approvals with respect to expenditures, capital and operating, for utility 21 EV charging station infrastructure. This includes the outstanding requests by Newfoundland 22 Power for capital expenditures for 2022 and 2023 for EV charging stations.
- 23

24 Deferral Accounts

25

26 The Newfoundland Power Application requests approval of an Electrification Cost Deferral 27 Account to provide for the deferral of 2021 costs associated with implementing customer 28 electrification programs and recovery from customers. In Newfoundland Power's 2022/2023 29 general rate application the Board approved an Electrification Cost Deferral Account and an 30 increase in the amortization period for customer CDM program costs from seven to ten years.⁴² The Board did not approve the proposed amendments to Clause II.9 of the Rate Stabilization 31 32 Clause to allow for the Electrification Cost Recovery Transfer from the Electrification Cost 33 Deferral Account and the amortization of costs over a ten-year period. The Board stated that 34 these proposals should be considered as part of the utility electrification applications.

35

The Hydro Application did not request approval of a new account for the deferral and recovery of electrification costs but rather requests approval of i) revisions to the existing CDM Cost

³⁹ Order No. P.U. 36(2021), page 1.

⁴⁰ Hydro 2023 Capital Budget Application, Capital Budget Overview, page 22, footnote 32.

⁴¹ The process for the consideration of Newfoundland Power's proposals for 2022 capital expenditures for EV charging station infrastructure was put on hold pending the Board's determination on the Applications. Newfoundland Power's proposals for 2023 capital expenditures for EV charging station infrastructure were included in the 2023 Capital Budget Application filed in June 2022 and were subject to the review process for that proceeding. ⁴² Order No. P.U. 3(2022), pages 9 to 10.

Deferral Account to allow deferral of costs associated with the delivery of the electrification programs on the Island Interconnected system and the deferral of CDM costs incurred for customers on the Labrador Interconnected system, and ii) revisions to the existing CDM Cost Recovery Adjustment to allow recovery of deferred electrification program costs over an amortization period of seven years.

6

7 The Board believes that a similar approach should be taken for the deferral and recovery of CDM and electrification costs for both utilities. Newfoundland Power's separate deferral account for 8 9 CDM and electrification initiatives would, in the Board's view, enhance transparency and allow 10 for different treatment of these costs where appropriate. In addition Newfoundland Power's 11 CDM costs are amortized over ten years. The Board agrees with Newfoundland Power that a ten-12 year period to recover costs associated with electrification initiatives is also appropriate and 13 consistent with sound utility practice, current practices for CDM initiatives and regulatory 14 fairness principles. The Board notes that Hydro stated it will apply for a revised account definition 15 to align the amortization period between the utilities. To be consistent with Newfoundland 16 Power's approach Hydro should also request approval of a separate electrification cost deferral 17 account. In terms of Hydro's proposal to revise its CDM Cost Deferral Account to allow the 18 deferral of CDM costs incurred for customers on the Labrador Interconnected system the Board 19 accepts this change on the basis that it is consistent with the provision of least-cost service. Hydro 20 and Newfoundland Power may file for the necessary approvals with respect to the deferral and 21 recovery of approved electrification costs.

22

23 Conclusion

24

25 While the Board has determined that the Applications will not be approved, the Board continues 26 to believe in the potential benefits of appropriate electrification programming for this Province. 27 At this stage in the development and implementation of utility electrification programming the 28 Board believes that the best way to ensure that these new programs are consistent with the 29 provision of least-cost service and good utility practice is through the review of specific initiatives 30 and expenditures. Planned electrification initiatives must be shown to be appropriate in the 31 circumstances through evidence which demonstrates customer and system benefits. This 32 evidence may include an evaluation of economic benefits of an initiative using a variety of 33 appropriate tests and time periods. Other evidence may also be provided which demonstrates 34 the benefits. For example, in the case of load management measures, the utilities may present 35 evidence as to the criticality of these measures and capacity cost savings, and for customer 36 research and pilot programs, evidence may be presented as to the need for the information 37 which will be gathered.

38

39 The utilities may apply to the Board for approval of:

- 40 i) the deferral and recovery of expenditures for specific electrification initiatives;
- 41 ii) capital expenditures for proposed EV charging station infrastructure; and
- 42 iii) the accounting treatment and recovery of net costs, capital and operating, associated
 43 with utility EV charging station infrastructure approved and proposed.

1 **IT IS THEREFORE ORDERED:**

2

6

10

15

- The proposal by Newfoundland Power and Newfoundland and Labrador Hydro to use a
 modified Total Resource Cost test for the economic evaluation of customer electrification
 programs is not approved.
- Newfoundland and Labrador Hydro's proposed revisions to the existing CDM Cost Deferral
 Account to allow deferral of conservation and demand management costs incurred for
 customers on the Labrador Interconnected system is approved.
- Newfoundland and Labrador Hydro's proposed revisions to the existing CDM Cost Deferral
 Account and the existing CDM Cost Recovery Adjustment to allow deferral and recovery of
 costs associated with the delivery of electrification programs of the Island Interconnected
 system is not approved.
- Newfoundland Power and Newfoundland and Labrador Hydro will pay the costs and
 expenses of the Board arising from the Applications.

DATED at St. John's, Newfoundland and Labrador, this 10th day of November 2022.

allhalen

Darlene Whalen, P. Eng., FEC Chair and Chief Executive Officer

Dwanda Newman, LL.B. Vice-Chair

John O'Brien, FCPA, FCA, CISA Commissioner

Christopher Pike, LL.B., FCIP Commissioner

ndo

Cheryl Blundon Board Secretary