

IN THE MATTER OF the *Public Utilities Act*
(the “Act”); and

IN THE MATTER OF an application by
Newfoundland Power Inc., for the approval of an
economic test and a deferral account to provide
for recovery of costs proposed to be incurred in
2021 for customer electrification programs,
Pursuant to sections 58 and 80 of the Act; and

IN THE MATTER OF an application by
Newfoundland Power Inc. for the approval of
supplemental 2021 capital expenditures related
to the construction of an Electric Vehicle Charging
Network, pursuant to section 41(3) of the Act.

**CONSUMER ADVOCATE
REQUESTS FOR INFORMATION**

TC-CA-NP-001 to TC-CA-NP-045

Issued: February 17, 2021

- 1 TC-CA-NP-001 Is a primary objective of the proposed electrification program to
 2 increase consumption of electricity in the Province, particularly the
 3 Island Interconnected System (IIS)? If so, by how many years is the
 4 proposed electrification program expected to advance electrification
 5 in the Province?
 6
- 7 TC-CA-NP-002 Which of the electrification and CDM expenditures included in the
 8 Electrification, Conservation and Demand Management Plan 2021-
 9 2025 (the 2021 Plan) for programs during 2021 to 2025 have been
 10 approved by the Board? Do all the 2021 Plan expenditures have to
 11 be approved by the Board?
 12
- 13 TC-CA-NP-003 Will all the electrification and CDM program expenditures under the
 14 2021 Plan have to pass the modified Total Resource Cost (mTRC)
 15 test prior to a request to the Board for approval? If Board approval
 16 is not needed, would either utility proceed with programs that do not
 17 pass the mTRC test?
 18
- 19 TC-CA-NP-004 Please give a formal definition of the TRC test as well as the mTRC
 20 test and provide the documentation or manual that will guide
 21 Newfoundland Power in applying the mTRC test methodology.
 22
- 23 TC-CA-NP-005 The Board's December 20, 2021 letter titled *Provisional Capital*
 24 *Budget Application Guidelines* states "*In addition Government*
 25 *recently announced a plan for the renewable energy industry in the*
 26 *province which may have an impact on utility capital expenditures*
 27 *in the near future as the province transitions to a net-zero economy*
 28 *and more renewable energy sources.*"
 29 a) As part of this initiative, has the Government contacted
 30 Newfoundland Power about their role?
 31 b) Has the Government specifically endorsed the electrification
 32 programs proposed by Newfoundland Power and identified them
 33 as a critical component of the initiative to transition to a net-zero
 34 economy?
 35 c) How might the Government's initiative to transition to a net-zero
 36 economy impact the analyses relating to the electrification
 37 program, particularly the baseline scenario?
 38
- 39 TC-CA-NP-006 (Reference slide 4)
 40 (a) Is it accurate to state that the driving force behind encouraging
 41 more IIS consumption of electricity is that Muskrat Falls will
 42 create a surplus of energy that would otherwise have to be sold
 43 at lower prices on export markets?

- 1 (b) Confirm that the anticipated surplus of energy is currently
 2 approximately 3 million MWh and the price advantage for selling
 3 to IIS ratepayers rather than exporting is about 10 cents per kWh
 4 (\$100 per MWh) as long as capacity constraints are not binding.
 5
- 6 TC-CA-NP-007 (Reference slide 6) The slide compares the Baseline consumption
 7 with the “Upper;” what is the comparison between the Baseline and
 8 the 2021 Plan? For the years given in the graph, please provide a
 9 table showing the annual projected Baseline energy consumption,
 10 Plan 2021 consumption and difference between them.
 11
- 12 TC-CA-NP-008 (Reference slides 5, 6, 7 and 8) The graphics on slides 6, 7 and 8
 13 show the potential impact of EVs on electric energy consumption,
 14 load, and revenues. Are the graphics on these slides based on the
 15 information on slide 5, which shows that the number of EVs will
 16 more than triple by 2034?
 17 (a) Is this a hypothetical scenario or does Newfoundland Power
 18 believe that the proposed electrification program will result in a
 19 tripling of EVs in the Province by 2034?
 20 (b) If hypothetical, please provide the graphics on slides 5, 6, 7 and
 21 8 based on the number of EVs expected to result from the
 22 proposed electrification program, as well as any additional
 23 electrification applications that might be submitted in the future.
 24
- 25 TC-CA-NP-009 (Reference slide 5) Please show the graphic on slide 5 extended out
 26 to the year when the expected number of electric vehicles resulting
 27 from the proposed electrification program is equal to the expected
 28 number of electric vehicles without the proposed electrification
 29 program.
 30
- 31 TC-CA-NP-010 (Reference slide 12) It is indicated that Newfoundland Power
 32 expects to stop investment in EV charging stations in 2025.
 33 (a) Is this because Newfoundland Power expects that the number of
 34 EVs will be sufficient for private business and other entities to
 35 undertake such investments thereafter?
 36 (b) Is there any other reason for Newfoundland Power to stop such
 37 investment in 2025?
 38
- 39 TC-CA-NP-011 Does Newfoundland Power plan to remove themselves from the EV
 40 charger business after 2025?
 41 (a) If so, when and how will they dispose of their charger assets?
 42 (b) Would the net revenue from sale of the assets accrue to the
 43 associated deferral account?

(c) Or, will Newfoundland Power retain and operate its EV chargers in competition with non-utility operations?

TC-CA-NP-012

It is understood that the Provincial Government incentive for EV purchases expires in March 2022.

(a) Please confirm that the analyses relating to the electrification program are based on this assumption.

(b) If the Government extends the program for another year under the same terms and conditions, how will that impact the analyses of the electrification program, particularly the baseline scenario?

TC-CA-NP-013

Please confirm that placing a timer on household chargers so that they do not charge during the peak period is a relatively simple means for managing EV charger demand.

(a) Do most household EV chargers on the market come with a built-in timer?

(b) What would be the best way to take advantage of this capability from the perspective of electrification and rate design?

TC-CA-NP-014

(a) (Reference slide 8) Regarding the statement that the 2021 Plan will provide 0.5 cents/kWh in rate mitigation by 2034, please provide the decomposition of the Plan's rate mitigating effect due to electrification and due to CDM.

(b) What does Newfoundland Power anticipate the cost of a kilowatt will be in 2034?

TC-CA-NP-015

When estimating the impacts and benefits of the electrification program, are impacts such as the 0.5 cents/kWh rate mitigation effect based on the electrification applications that are now before the Board, or do they include any additional electrification initiatives will be the subject of future applications?

(a) What is assumed with respect to the baseline scenario; i.e., does it reflect the scenario where the Board does not approve the proposed electrification program?

(b) Further, in the baseline scenario is Newfoundland Power assuming to continue to provide household service entrance upgrades needed to support EV charging, generation, transmission and distribution system upgrades needed to support and EV charging, load management/rate design to manage EV charging impacts on capital and O&M costs while ensuring rates are fair and cost reflective, and customer education relating to use of electricity including EV charger use?

- 1 TC-CA-NP-016 (Reference slide 8)
- 2 a) Please explain the statement that unmanaged EV charging results
- 3 in a negative NPV of \$22 million.
- 4 b) If the Board were not to approve the proposed electrification
- 5 program, would there be no options available to Newfoundland
- 6 Power to manage EV charging and avoid additional capacity
- 7 costs owing to EV charger demand?
- 8 c) Does management of electricity demand fall under
- 9 Newfoundland Power's responsibility with or without approval
- 10 of the electrification program?
- 11
- 12 TC-CA-NP-017 (a) Please confirm and identify the revenues and costs associated
- 13 with Newfoundland Power's electrification program in 2021 and
- 14 beyond that will be included in the deferral account for recovery
- 15 from customers.
- 16 (b) Where will these be chargers purchased and under what
- 17 competitive process? Please provide details of the warranties and
- 18 maintenance agreements, including the anticipated life of each
- 19 charger.
- 20
- 21 TC-CA-NP-018 Please confirm that although NL electricity consumers were
- 22 surveyed about their concerns about EVs that they were not surveyed
- 23 about their opinions on: 1) Newfoundland Power's involvement in
- 24 electrification, and 2) that Newfoundland Power's involvement will
- 25 lead to increased electricity rates over the next several years before
- 26 providing rate mitigation benefits around 2030 and beyond.
- 27
- 28 TC-CA-NP-019 Please confirm that General Service customers such as Tim
- 29 Horton's, Canadian Tire, Irving and Costco were not surveyed about
- 30 any concerns they might have with Newfoundland Power owning
- 31 charging stations with costs paid by the Province's electricity
- 32 consumers.
- 33
- 34 TC-CA-NP-020 How many, if any, additional stations does Newfoundland Power
- 35 plan to establish on the island from the end of 2025 and beyond?
- 36 (a) How many, if any, additional stations does Newfoundland Power
- 37 plan to establish on the island from the end of 2025 and beyond?
- 38 (b) What will be the cost of each charging station?
- 39 (c) What competitive tendering process has Newfoundland Power
- 40 utilized in purchasing the same?
- 41 (d) Please provide details regarding warranties and maintenance
- 42 agreements and the anticipated life of each charger and will
- 43 Newfoundland Power be hiring any additional employees
- 44 referenced to these matters?

- 1
2
- 3 TC-CA-NP-021 (Reference slide 14) Will the smart-charger rebate also be reduced
4 after 2023? If so, by how much? What is the plan?
5
- 6 TC-CA-NP-022 (Reference slide 19) With respect to the example of an mTRC test:
7 a) Please provide a breakdown of each of the example's three cost
8 categories into finer detail and indicate the portion of each borne
9 directly by the program participants.
10 b) Since the example deals with residential EV and charger
11 programs, please add the associated load management costs and
12 the cost of the EV demand response pilot study (re: slide 15), if
13 they are not already included, and provide the new result.
14
- 15 TC-CA-NP-023 (Reference slide 19) Regarding Electricity Supply Costs:
16 (a) Is the cost figure of \$8,045,129 based on the marginal production
17 cost (i.e., all-in marginal cost including generation, transmission and
18 distribution), on the export price or on some other unit cost?
19 (b) Please provide a tabular calculation of the \$8,045,129 figure
20 showing the annual quantity of electricity and corresponding annual
21 electricity supply cost.
22
- 23 TC-CA-NP-024 (Reference slide 21)
24 (a) Please decompose the annual capital costs (Column A) into their
25 main components and similarly for program costs (Column B)
26 decompose into the separate programs (presumably the three
27 programs listed on slide 13).
28 (b) Regarding Incremental System Costs (Column D), what is the
29 source of these costs considering that the electricity would otherwise
30 still have been produced for export and therefore have entailed
31 system costs?
32
- 33 TC-CA-NP-025 (Reference slide 21) Please provide a similar NPV analysis but for
34 the Residential EV & Charger Program only.
35
- 36 TC-CA-NP-026 (Reference slide 22)) It is indicated that the \$33.9 million net
37 revenue due to electrification causes an average annual bill savings
38 for ratepayers of \$100. However, that net revenue impact is the
39 result of ratepayers paying higher bills as electrification induces
40 them to consume more electricity. (a) Is the \$33.9 million in net
41 revenue derived from the gross revenue from increased bill
42 payments due to that higher electricity consumption? (b) Taking
43 into account the higher bills due to that increased consumption, how
44 can the average annual ratepayer bill go down?

- 1
- 2 TC-CA-NP-027 (Reference slide 33)
- 3 (a) Is this slide meant to be some form of evaluation for CDM
- 4 programs from 2009 to 2025?
- 5 (b) How does it relate to the 2021 Plan?
- 6 (c) For the 2021 Plan period, will the annual energy savings, as
- 7 shown in the slide, partially or more than fully offset the
- 8 increased energy consumption due to electrification?
- 9
- 10 TC-CA-NP-028 Please provide a table showing, for the 2023 to 2034 period, the
- 11 change in electricity consumption and change in peak demand due
- 12 to current and planned electrification programs, the change in
- 13 electricity consumption and change in peak demand due to current
- 14 and planned CDM programs, and the respective net differences.
- 15
- 16 TC-CA-NP-029 (Reference slide 36) Can Newfoundland Power manage EV charger
- 17 demand through existing curtailment programs without the need for
- 18 time-of-use (TOU) rates which have benefits that are only $\frac{1}{2}$ the cost
- 19 to implement and administer. Further, it is stated that TOU rates are
- 20 not expected to be economic until after 2030 when EV demand
- 21 increases. It is understood that this is based on the Dunsky report
- 22 which states that optimized dynamic rates such as TOU and critical
- 23 peak pricing do not provide sufficient benefits to carry the full cost
- 24 of the AMI investments needed to enable these programs before
- 25 2034. However, the Dunsky report goes on to say that a full business
- 26 case assessment for AMI may reveal other benefits streams that
- 27 could be combined with TOU/CPP programs to render the
- 28 investment cost-effective. Has Newfoundland Power undertaken a
- 29 "*full business case assessment for AMI*"? If so, does it take into
- 30 consideration rate design principles such as fairness and equity, and
- 31 providing customers with a level of control over the bills?
- 32
- 33 TC-CA-NP-030 (Reference slide 36)
- 34 (a) When household rates have a flat energy charge as they do now,
- 35 does the potential exist for significant cross-subsidization; i.e.,
- 36 under the current rate design, are oil heating customers
- 37 subsidizing electric baseboard heating customers, and will
- 38 customers with no EV chargers be subsidizing customers with
- 39 EV chargers?
- 40 (b) If it has been determined that no such cross-subsidization is
- 41 taking place, please provide the analyses.
- 42

- 1 TC-CA-NP-031 (Reference slide 36) It is understood that Newfoundland Power can
 2 manage EV charger demand through existing curtailment programs
 3 without the need for time-of-use rates.
- 4 a) Can Newfoundland Power also manage EV charger demand
 5 without the need to provide subsidies/rebates for EV chargers?
 6 b) If the Board does not approve the proposed electrification
 7 program, will Newfoundland Power still have opportunities to
 8 manage EV charger demand through existing curtailment
 9 programs without the need for time-of-use rates? If so, please
 10 explain the available opportunities.
 11 c) Would time-of-use rates be an effective means for managing
 12 charger demand, leaving the decision on how and when to charge
 13 EVs with the customer rather than the utility?
 14
- 15 TC-CA-NP-032 (Reference slide 35) It is stated that the Rate Impact Measure (RIM)
 16 test is not recommended for the economic evaluation of CDM
 17 programs.
 18 (a) Why is that the case?
 19 (b) Is the electrification programs' "Rate Mitigation Benefit,"
 20 referred to on slide 22, the same as a rate impact measure or are
 21 they different concepts?
 22
- 23 TC-CA-NP-033 (Reference slide 35)
 24 a) Does Newfoundland Power intend to continue evaluating CDM
 25 programs using both the TRC and PAC tests?
 26 b) Is the only difference between the TRC and mTRC tests that the
 27 latter includes non-electricity benefits and costs while the former
 28 does not?
 29 c) With respect to the TRC test, please provide a numerical
 30 illustration of its calculation for Newfoundland Power's Business
 31 Efficiency program (Application, Table 3, page 13 of 25)
 32 identifying the benefits and costs by type for each year. Also, for
 33 each year please indicate the energy saved (and coincident peak
 34 reduction) and the marginal valuation used for it.
 35
- 36 TC-CA-NP-034 (a) Is the intention of Newfoundland Power to permanently get into
 37 the electric vehicle charger business?
 38 (b) What role does Newfoundland Power see for private enterprises
 39 in this business?
 40
- 41 TC-CA-NP-035 Has Newfoundland Power consulted the Automobile Dealers
 42 Association to determine how many electric cars will be available in
 43 the province in 2022, 2023, 2024, and beyond? Please provide a
 44 list year over year from 2022 to 2030 of the number of electric

- 1 vehicles which will be available for purchase in the Province in each
 2 of these years and the source of your information.
 3
- 4 TC-CA-NP-036 What research has Newfoundland Power undertaken to determine
 5 the cost and uptake by consumers in electric car purchases?
 6
- 7 TC-CA-NP-037 If there are limited supplies of electric cars coming to the province
 8 during the next decade, how would this affect the forecast in your
 9 presentations?
 10
- 11 TC-CA-NP-038 What research has Newfoundland Power undertaken to determine
 12 how electric chargers and the uptake in electric vehicles are dealt
 13 with by the various utilities boards in these jurisdictions:
 14 (a) Nova Scotia
 15 (b) Prince Edward Island
 16 (c) New Brunswick
 17 (d) Quebec
 18 (e) Ontario
 19 (f) Manitoba
 20 (g) Saskatchewan
 21 (h) Alberta
 22 (i) British Columbia
 23
- 24 TC-CA-NP-039 In any of these jurisdictions have the utility Boards permitted all
 25 ratepayers to subsidize the purchase of electric vehicles or any of the
 26 components thereof, including electric chargers, and, if so, please
 27 state where this has occurred.
 28
- 29 TC-CA-NP-040 (a) How does Newfoundland Power justify charging all ratepayers
 30 for the expense pertaining to the construction and maintenance
 31 of electric charger stations?
 32 (c) Why should all ratepayers subsidize someone's electric vehicle?
 33
- 34 TC-CA-NP-041 Why can't the ownership of the electric vehicle charging stations and
 35 the capital and operating investment therein to be undertaken by
 36 private enterprise and how is it that electric vehicle batteries and the
 37 charging thereof is different than the charging of a cellphone or
 38 portable computer?
 39
- 40 TC-CA-NP-042 Are EV charging stations used for the production or transmission of
 41 electrical energy?
 42
- 43 TC-CA-NP-043 Please provide the legislative authority under the Public Utilities Act
 44 which would allow the production, operation and maintenance of

1 electric chargers for the benefit of electric vehicle owners to be
2 charged to all the ratepayers of the province.
3 TC-CA-NP-044 Please provide copies of Newfoundland Power's application to the
4 federal government for funding and any correspondence therein
5 related.
6
7 TC-CA-NP-045 Please provide amounts that Newfoundland Power will be required
8 to pay back to the federal government should it be determined that
9 this business is more appropriate for the private sector.

DATED at St. John's, Newfoundland and Labrador, this 18th day of February, 2021.

Per: 
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