

Office of the Consumer Advocate

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October 14, 2022

Board of Commissions of Public Utilities
120 Torbay Road, P.O. Box 2140
St. John's, NL A1A 5B2

**Attention: G. Cheryl Blundon, Director of
Corporate Services / Board Secretary**

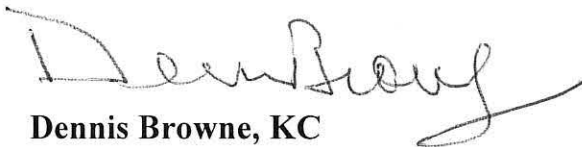
Dear Ms. Blundon:

Re: Newfoundland and Labrador Hydro - 2023 Capital Budget Application

Further to the above-captioned, enclosed are the Consumer Advocate's Requests for Information numbered CA-NLH-095 to CA-NLH-122.

If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours truly,



**Dennis Browne, KC
Consumer Advocate**

Encl.
/bb

cc **Newfoundland & Labrador Hydro**
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IN THE MATTER OF the *Public Utilities Act*,
RSNL 1990, (the “Act”); and

IN THE MATTER OF an Application by
Newfoundland and Labrador Hydro (“Hydro”)
for an Order approving: (i) its 2023 capital
budget pursuant to Section 41(1) of the Act;
(ii) its 2023 capital purchases and construction
projects in excess of \$50,000.00 pursuant to
Section 41(3)(a) of the Act; and (iii) for an Order
pursuant to Section 78 of the Act fixing and
determining its average rate base for 2021

**CONSUMER ADVOCATE
REQUESTS FOR INFORMATION
CA-NLH-095 to CA-NLH-122**

Issued: October 14, 2022

- 1 CA-NLH-095 (Reference Technical Conference) Please confirm that, despite the
 2 *Reliability and Resource Adequacy Study – 2022 Update*, there will be no
 3 change in the proposed capital expenditure on the Holyrood TGS for year
 4 2023 from that contained in Hydro’s 2023 CBA.
 5
- 6 CA-NLH-096 (Reference Technical Conference) In light of the *Reliability and Resource*
 7 *Adequacy Study – 2022 Update*, please provide an update of the anticipated
 8 annual capital expenditures for the Holyrood TGS for 2024 to 2027.
 9 Specifically, provide this information in the same format as on Page A-18
 10 in Appendix A of the *Five-Year Capital Plan (2023-2027)*.
 11
- 12 CA-NLH-097 (Reference CA-NLH-007) Please reproduce Table 1 showing the total
 13 dollar amount of 2023 capital projects proposed for each of the Island
 14 Isolated, Labrador Isolated and Island Rural Interconnected systems and the
 15 total dollar amount allocated to the rural deficit.
 16
- 17 CA-NLH-098 (Reference CA-NLH-008)
 18 a) What is the impact of the \$238.72 million deferral account amount on
 19 rates in percentage terms?
 20 b) What are the forecast amounts in deferral accounts that customers will
 21 owe at year-end 2022, and year-end 2023?
 22 c) In the industry, what is the typical number of deferral accounts granted
 23 a generation and transmission company?
 24
- 25 CA-NLH-099 (Reference CA-NLH-009 and CA-NLH-010)
 26 a) Do the amounts in 2021 and 2022 (through mid-year) reflect the
 27 maximum amounts achievable over the Labrador-Island Link during
 28 this period? If not, why not?
 29 b) What is the level of output at Holyrood if called upon to operate at
 30 minimum loading levels from now through year-end 2023? Please show
 31 output levels for 2022 and 2023 under this scenario.
 32 c) Were imports over the Maritime Link available to offset any production
 33 at Holyrood in 2021 and 2022?
 34 d) What is the forecast production from Holyrood through year-end 2022,
 35 2023 and 2024 under expected conditions, and under a scenario where
 36 the Labrador-Island Link continues to have limited availability similar
 37 to that over the past year?
 38 e) What is the total cost of production at Holyrood if required to operate at
 39 minimum production levels in 2022 and 2023?
 40 f) What is the total expected cost of production at Holyrood in 2023 if
 41 required to operate at 2021 levels?
 42 g) Please confirm that Table 1 in CA-NLH-010 shows figures for 2023 and
 43 2024.

- 1 CA-NLH-100 (Reference CA-NLH-010)
- 2 a) If the Holyrood TGS's three units were to be kept online at minimum
- 3 loading during the winters of 2023-24 and 2024-25, would the incremental
- 4 energy cost still be the same as given in Table 2 (re:CA-NLH-010c)? If not,
- 5 what would the incremental energy cost be?
- 6 b) Is it reasonable to expect that the Holyrood TGS will be providing
- 7 baseload generation for the next two to six winters, and possibly until 2030?
- 8 c) What is the likelihood that the Holyrood TGS might have to operate
- 9 during non-winter months during the next two to six years?
- 10
- 11 CA-NLH-101 (Reference CA-NLH-012c) It is stated "*it is possible that increased*
- 12 *operation of the Holyrood Thermal Generating Station will be required to*
- 13 *meet Island capacity requirements while delivering capacity to Nova*
- 14 *Scotia. It is noted that any incremental fuel costs incurred due to deliveries*
- 15 *to Nova Scotia prior to the commissioning of the LIL are paid by Nalcor*
- 16 *Energy in accordance with an indemnity agreement with Hydro."*
- 17 a) Does Nalcor fund such incremental costs by taking a lower return on
- 18 equity? If not, from what source does this funding come?
- 19 b) If the same situation arose after commissioning of the LIL then where
- 20 would the funding come from?
- 21
- 22 CA-NLH-102 (Reference CA-NLH-014) What is the expected capital cost of a charging
- 23 station and what is the expected contribution from government? Has the
- 24 cost estimate for charging stations been revised to reflect experience gained
- 25 to date?
- 26
- 27 CA-NLH-103 (Reference CA-NLH-020) Please provide a summary table showing capital
- 28 spending amounts applied for and spent on the distribution systems for
- 29 Hydro's Island Interconnected customers and Labrador Interconnected
- 30 customers, and combined for the two systems for each of the past 20 years.
- 31 Please include a graph showing these costs in both nominal and inflation-
- 32 adjusted terms over the same period.
- 33
- 34 CA-NLH-104 (Reference CA-NLH-020) Please provide a summary table showing capital
- 35 spending amounts applied for and spent on the transmission systems for
- 36 Hydro's Island Interconnected customers and Labrador Interconnected
- 37 customers, and combined for the two systems for each of the past 20 years.
- 38 Please include a graph showing these costs in both nominal and inflation-
- 39 adjusted terms over the same period. Please show these costs with and
- 40 without major new additions to the transmission system.
- 41
- 42 CA-NLH-105 (Reference CA-NLH-022) It is stated "*Newfoundland and Labrador*
- 43 *Hydro's submission in the Capital Budget Application Guidelines Review*

1 *process is that the capital envelope approach does not align with the*
 2 *requirements of the Public Utilities Act ...*". Please elaborate.

3
 4 CA-NLH-106 (Reference CA-NLH-032, Attachment 1) In Table 1, the number of street-
 5 lighting customers spikes in 2021 for most customer groups; for example,
 6 on the island interconnected system the number of street-lighting customers
 7 is 1,110 in 2020, 1,617 in 2021 and then 1,034 in 2022. Please provide an
 8 explanation of this phenomenon.
 9

10 CA-NLH-107 (Reference CA-NLH-031) In Hydro's experience has the purchase cost of
 11 LED streetlight systems for its LED Street Light Program been declining
 12 or increasing over the past ten years? Please provide any available
 13 quantitative information on these costs, both historical and anticipated.
 14

15 CA-NLH-108 (Reference CA-NLH-035) It is stated "*The uncertainty with respect to the*
 16 *final rate mitigation plan to deal with the recovery of Muskrat Falls Project*
 17 *costs is contributing to customer uncertainty with respect to future*
 18 *customer rates.*"

- 19 a) Has Hydro made its shareholder aware of this? If so, what was its
 20 response?
 21 b) When does Hydro expect to receive information on rate mitigation from
 22 government?
 23 c) How will Hydro proceed if such information on rate mitigation is not
 24 received from government, or if information is received that there will
 25 be no rate mitigation?
 26 d) It is understood that Hydro will not be filing a GRA until 9 months after
 27 there is clarity on the government's rate mitigation plan. Does the
 28 government first need to know how much it will cost to fund a rate
 29 mitigation plan before committing to a plan? For example, will the
 30 government require Hydro to first file a cost of service study identifying
 31 the cost of supply before it can gain the necessary approvals to fund a
 32 rate mitigation plan? Otherwise, is Hydro not effectively asking the
 33 government for a blank check?
 34 e) Does Hydro expect that its recently released Reliability and Resource
 35 Adequacy Study – 2022 Update maintaining Holyrood and Hardwoods
 36 facilities in service until 2030 and adding new facilities such as Bay
 37 d'Espoir Unit 8 will significantly increase the cost of a rate mitigation
 38 plan?
 39

40 CA-NLH-109 (Reference CA-NLH-044) It is stated (part c) "*Ultimately, an expenditure*
 41 *may be deemed justifiable only if approved through regulatory process.*"
 42 How does the Board deem that a project is justifiable before it grants
 43 approval?

- 1 CA-NLH-110 (Reference CA-NLH-045) Please provide a summary of what Hydro
 2 learned from the customer engagement with respect to the four bullet points
 3 listed in the response.
 4
- 5 CA-NLH-111 (Reference CA-NLH-048) Please confirm that Hydro’s end-consumer
 6 SAIFI on a 5-year rolling average basis has been less than half the CEA
 7 average.
 8
- 9 CA-NLH-112 (Reference CA-NLH-051) It is stated (part b) “*Delaying the installation of*
 10 *the proposed EV charging stations until 2024 or 2025 would delay the*
 11 *associated rate mitigating benefits for customers.*”
 12 a) Has Hydro considered the rate mitigation benefits of electrification if
 13 Holyrood is required to operate for generation purposes until 2030?
 14 b) Is Hydro reassessing its electrification program in light of the Reliability
 15 and Resource Adequacy Study – 2022 Update?
 16 c) Has, or will, Hydro request the Board to defer a decision on
 17 electrification until Hydro has had time to understand the impacts of the
 18 Reliability and Resource Adequacy Study – 2022 Update?
 19
- 20 CA-NLH-113 (Reference CA-NLH-060) Would carbon capture enable continued use of
 21 carbon fuels in specific cases, such as the use of diesel gensets in isolated
 22 communities?
 23
- 24 CA-NLH-114 (Reference CA-NLH-062) Referring to Hydro’s 2021–2025 Electrification,
 25 Conservation and Demand Management Plan, it was stated “*Should the*
 26 *Holyrood Thermal Generating Station be required as contemplated above,*
 27 *it would most likely be used for capacity purposes; as such, the marginal*
 28 *cost of energy on the Island Interconnected System would remain market-*
 29 *based; therefore, there would be no impact on the economic evaluation of*
 30 *the 2021 Plan. As such, the 2021 Plan should not be impacted by the in-*
 31 *service date of the LIL.*” In light of the new information from the *Reliability*
 32 *and Resource Adequacy Study – 2022 Update*, is the preceding quotation
 33 still valid? Would it not be prudent for Hydro to delay encouragement of
 34 and incentives for electrification until adequate and reliable capacity and
 35 non-thermal energy are available?
 36
- 37 CA-NLH-115 (Reference CA-NLH-072) Please respond to the following:
 38 a) Are Hydro and Newfoundland Power partners in the electrification and
 39 conservation programs?
 40 b) Does Newfoundland Power include electrification program initiatives
 41 in its 2023 capital budget application?
 42 c) Has Hydro approached Newfoundland Power about adjusting, refiling
 43 and abandoning the electrification program that is now before the Board
 44 in light of the expectation that Holyrood will remain in operation in

- 1 standby mode and possibly in generation mode for the next 8 years? If
2 not, are such talks scheduled?
3
- 4 CA-NLH-116 (Reference CA-NLH-073) It is stated (part e) “*Hydro does not capture or*
5 *track data related to customer complaints about reliability by feeder.*
6 *Customer contact tracking does not include the overall level of reliability*
7 *of service.*” Why not? What are the top three priorities of Hydro’s
8 customers?
9
- 10 CA-NLH-117 (Reference CA-NLH-092) It is stated (part e) “*Hydro is further*
11 *investigating the role of renewable energy in its isolated systems as part of*
12 *its application for approval of the construction of Phase 1 of its long-term*
13 *supply plan for southern Labrador.*” How will the Canadian government’s
14 zero emissions policy factor into this analysis? In light of Hydro’s belief
15 that renewable forms of generation cannot supply firm capacity, will Hydro
16 be forced to interconnect all isolated systems to the main grid? What other
17 options are available?
18
- 19 CA-NLH-118 Has, or is Hydro planning to, make upgrades to its transmission and
20 distribution facilities in response to global warming and its impact on
21 localized weather conditions?
22
- 23 CA-NLH-119 (Reference NP-NLH-023) Hydro indicates that it did not calculate NPVs
24 for the alternatives for the transformer upgrade.
25 a) For which projects in its CBA did Hydro carry out NPV analyses?
26 b) What discount rate did it use in its NPV calculations and why did it
27 choose that rate?
28 c) Where Hydro performed NPV analyses, would the conclusion of each
29 be affected if it had used a discount rate that was 1 percentage point
30 higher? 2 percentage points higher?
31
- 32 CA-NLH-120 (Reference Technical Conference) In Hydro’s Capital Risk Rating Matrix,
33 the likelihood values of 1, 2, 3, 4 and 5 correspond to probabilities of less
34 than 1%, 1% to 10%, 10% to 50%, 50% to 90%, and greater than 90%,
35 respectively. In Newfoundland Power’s risk matrix, (NP CBA 2023
36 Capital Budget Overview, Appendix C, p.4) the corresponding probabilities
37 are 0 to 10%, 11% to 25%, 26% to 75%, 76% to 90%, and 91 to 100%.
38 a) Why are the assigned probabilities different?
39 b) In its research on this methodology, did Hydro find that there was no
40 uniformity in the assignment of probabilities to each of the likelihood
41 values of 1 to 5, i.e., is it at the discretion of the utility?
42
- 43 CA-NLH-121 (Reference Technical Conference) Hydro’s Capital Risk Rating Matrix
44 does not include economic impacts in the assignment of impact values of 1

1 to 5 whereas Newfoundland Power does include economic impact in the
 2 form of NPV of customer benefit (NP CBA 2023 Capital Budget Overview,
 3 Appendix C, p.3).

4 a) Why does Hydro not include consideration of NPV of customer benefit
 5 in its matrix determination?

6 b) In its research on this methodology, did Hydro find that the standard
 7 practice is to exclude or include NPV of customer benefit in the matrix?

8 c) More generally, is Hydro's or Newfoundland Power's matrix
 9 methodology, in terms of assigning values to impacts and likelihoods,
 10 more consistent with that typically used by other utilities? Or, is the
 11 assignment of the impact and likelihood values at the discretion of the
 12 individual utilities?

13
 14 CA-NLH-122

(Reference Technical Conference) Does Hydro use its capital risk rating
 15 matrix for decision-making? In particular, does it eliminate any capital
 16 projects based on the application of the matrix methodology?

DATED at St. John's, Newfoundland and Labrador, this 14th day of October, 2022.

Per:



Dennis Browne, KC

Consumer Advocate

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