



NEWFOUNDLAND AND LABRADOR

**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

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2022-08-24

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

Dear Ms. Walsh:

**Re: Newfoundland and Labrador Hydro - 2023 Capital Budget Application  
Requests for Information**

Enclosed are Requests for Information PUB-NLH-001 to PUB-NLH-026 regarding the above-noted application.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Ms. Jacqui Glynn, by email, jglynn@pub.nl.ca or telephone (709) 726-6781.

Sincerely,

Cheryl Blundon  
Board Secretary

CB/cj

Enclosure

**ecc Newfoundland and Labrador Hydro**

NLH Regulatory, E-mail: NLHRegulatory@nlh.nl.ca

**Newfoundland Power Inc.**

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**Labrador Interconnected Group**

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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**, RSNL  
4 1990, Chapter P-47 (the “**Act**”), as amended,  
5 and regulations thereunder; and  
6

7 **IN THE MATTER OF** an Application by  
8 Newfoundland and Labrador Hydro for an  
9 Order approving:

- 10 i) its capital budget for 2023, pursuant to  
11 section 41(1) of the **Act**;  
12 ii) its proposed capital purchases and construction  
13 projects for 2023 in excess of \$50,000, pursuant  
14 to section 41(3)(a) of the **Act**; and  
15 iii) for an Order pursuant to section 78 of the **Act**,  
16 fixing and determining its average rate base for  
17 2021.

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**PUBLIC UTILITIES BOARD**  
**REQUESTS FOR INFORMATION**

**PUB-NLH-001 to PUB-NLH-026**

**Issued: August 24, 2022**

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1 **General**

2

3 **PUB-NLH-001** Please confirm the total 2023 Capital Budget amount that Hydro is requesting  
4 to be approved, including multi-year projects that commenced in previous years  
5 and have been approved by the Board, single year projects for 2023, and multi-  
6 year projects that will commence in 2023. Also, please include any supplemental  
7 capital applications anticipated to be filed in 2022 or 2023.

8

9 **PUB-NLH-002** Please detail which projects would not have been included in the 2023 Capital  
10 Budget Application if section 41(3) of the **Public Utilities Act** was changed to  
11 include expenditures where the cost of construction is above the following  
12 amounts

- 13 (a) \$300,000;
- 14 (b) \$500,000;
- 15 (c) \$1,000,000; and
- 16 (d) \$2,000,000.

17

18 **PUB-NLH-003** On November 12, 2020 Hydro submitted its “Efficiency and Effectiveness Plan -  
19 Fall 2020 Update” with the Board. On page 3 of that report Hydro identified  
20 ‘Contracting and Procurement’ as an area of focus and provided a list of key  
21 deliverables. Please provide an update on the progress Hydro has made to date  
22 with respect to exploring new opportunities for joint and consolidated  
23 procurement opportunities and achievement of its key deliverables.

24

25 **Schedule 1 - 2023 Capital Budget Overview**

26

27 **PUB-NLH-004** In its 2023 capital budget application Newfoundland Power stated that it does  
28 not currently have the software or data necessary to calculate the risk mitigation  
29 or reliability improvement values of capital expenditures. Hydro is able to  
30 provide the prioritization of the programs and projects proposed in its 2023  
31 capital budget application by risk mitigated per \$1 million (Table 8).

- 32 (a) Please describe the process Hydro used to develop the list of prioritized  
33 projects by risk mitigated per \$1 million.
- 34 (b) Please identify and discuss any challenges Hydro experienced in providing  
35 the list of prioritized projects.
- 36 (c) Please identify and discuss any limitations to the prioritization of projects  
37 by risk mitigated per \$1 million.

38

39 **PUB-NLH-005** Hydro states on page 32, lines 6-7, that depreciation of Holyrood accelerated  
40 assets will be addressed through the proposals in Hydro’s Supply Cost Variance  
41 Deferral Account. Please confirm that the accelerated depreciation is addressed  
42 in the Holyrood TGS Accelerated Depreciation Deferral Account and not the  
43 Supply Cost Variance Deferral Account.

44

45 **PUB-NLH-006** Hydro provides on page 17, Table 4, a list of planned 2023 capital proposals that  
46 are now being deferred into future years.

- 1 (a) Which, if any, of these proposals have been deferred previously? For each  
 2 proposal that has been deferred previously, please state the year in which  
 3 the proposal was initially made and the reason(s) why the proposal was  
 4 deferred.
- 5 (b) For each of the listed proposals that were planned for the 2023 Capital  
 6 Budget, what factors did Hydro take into account in making the decision  
 7 to defer the proposal to subsequent years?  
 8
- 9 **PUB-NLH-007** Hydro provides on page 18, Table 5, a list of various capital proposals that were  
 10 previously deferred. What factors did Hydro take into account in making the  
 11 original deferral decision and what factors subsequently led to the decision to  
 12 include the previously deferred projects in the 2023 Capital Budget?  
 13
- 14 **PUB-NLH-008** In Hydro's presentation of the 2023 Capital Budget on August 10, 2022, it was  
 15 confirmed that the rate impacts shown in Table 7, page 32, include only the  
 16 impact relating to the approval of \$90.8 million requested in this Application.
- 17 (a) Please provide a similar table that shows the rate impacts including the  
 18 \$90.8 million and the supplementary applications that have been  
 19 approved to date by the Board in 2022.
- 20 (b) Please provide a similar table that shows the rate impacts including the  
 21 information in (a) and also the supplementary applications that Hydro  
 22 anticipates it will be filing in 2022 and 2023.  
 23
- 24 **PUB-NLH-009** Page B-3 of Appendix B details the multi-year programs and projects that  
 25 commenced in 2022. The 'Terminal Station Refurbishment and Modernization  
 26 (2022-2023)' program shows capital expenditures of \$2,497,400 in 2022 and  
 27 \$6,109,700 in 2023, however, the corresponding total of the two years is noted  
 28 as \$6,109,700. Please reconcile and/or explain and confirm the overall  
 29 expenditures for 2022, 2023 and total.  
 30
- 31 **Schedule 2 - Five Year Capital Plan, Page 6, Lines 7-9**  
 32
- 33 **PUB-NLH-010** Please provide details on the upgrade work for L23 and L24 in 2025-2027 and  
 34 elaborate on the anticipated benefits associated with the upgrade work.  
 35
- 36 **Schedule 3 - Holyrood TGS Overview**  
 37
- 38 **PUB-NLH-011** Please detail the total capital expenditures required to maintain generation at  
 39 the Holyrood TGS each year since 2017 as well as the anticipated annual capital  
 40 expenditures for each year assuming that generation is maintained until 2027.  
 41 Please include detail on any significant capital projects/programs that have  
 42 occurred or are expected to occur during that timeframe.  
 43
- 44 **PUB-NLH-012** Hydro explains on page 11, lines 1-7, that if capital investments relating to the  
 45 Holyrood TGS life extension are capitalized, depreciation is required to be  
 46 calculated on an accelerated basis and, in the event that the investment does

1 not meet the criteria for capitalization, the expenditures would be recorded as  
 2 an expense in the year incurred. Hydro states in the Application that in Order  
 3 No. P.U. 33(2021) the Board approved the deferral of expenditure variances  
 4 (*emphasis added*) in excess of \$2.5 million above the test year to mitigate  
 5 material increases in Holyrood assets due to the projected end of generation  
 6 date.

7 (a) Please confirm that the definition of the Holyrood TGS Accelerated  
 8 Depreciation Deferral Account approved by the Board includes only the  
 9 deferral of the variance of the accelerated depreciation expense in excess  
 10 of  $\pm$  \$2.5 million.

11 (b) Is Hydro of the opinion that the definition of this deferral account needs  
 12 to be broadened to include expenditure variances related to generation-  
 13 related capital investments as a result of Holyrood TGS life extension that  
 14 do not meet the criteria for capitalization, in addition to the accelerated  
 15 depreciation expense? If no, please explain why and if yes, please provide  
 16 a revised definition for the Board's consideration.

17  
 18 **Program 2 - Overhaul Unit 2 Turbine and Valves (2023) - Holyrood**

19  
 20 **PUB-NLH-013** Hydro states on page 10, lines 2-4, that "While on site performing the overhaul  
 21 of the Unit 2 turbine and valves, the contractor will provide a generator  
 22 specialist and dedicated equipment to perform electrical testing of the rotor and  
 23 stator windings. This testing will be completed without the dismantling of the  
 24 generator."

25 (a) Please describe the electrical tests that will be performed on the generator  
 26 to establish its suitability for reliable operation.

27 (b) Please identify any risks to the generator that are associated with the  
 28 proposed tests.

29  
 30 **PUB-NLH-014** Hydro states on page i, lines 13-14, that the Unit 2 turbine and valves are due  
 31 for overhaul in 2023 according to the established overhaul cycles. Hydro states  
 32 on page 2, lines 25-26, that a condition assessment conducted by Hatch Ltd. in  
 33 2021 determined that the Unit 2 turbine and valves were in good condition,  
 34 indicating that these components may have shown signs of slightly defective or  
 35 deteriorated components but were overall functional. Given the magnitude of  
 36 the proposed capital expenditure (\$9.7 million), the assessment by Hatch Ltd.,  
 37 and that Unit 2 will only be in operation for approximately four months once the  
 38 project is completed based upon Hydro's current end of generation date for the  
 39 Holyrood TGS, does Hydro intend to re-evaluate the need for this project based  
 40 on the performance of the Unit 2 turbine and valves over the 2022-2023 winter  
 41 season?  
 42

43 **Program 3 - Terminal Station Renewal Program (2023-2024)**

44  
 45 **PUB-NLH-015** Hydro states on page 2, line 14, that the instrument transformers should be  
 46 replaced because the risk of failure is too high for them to remain in service.

- 1 (a) Have these instrument transformers failed in the past and, if so, what  
2 failure mechanism was exhibited?  
3 (b) If they have not failed how has Hydro determined that it is too risky to  
4 leave them in service?  
5 (c) Does Hydro need to employ any protection for surrounding equipment  
6 should they fail? If so, please provide details.  
7

8 **PUB-NLH-016** Hydro states on page 10, line 9, that Hydro does not currently record power  
9 transformer outage statistics.

- 10 (a) Is it a common practice in the industry to not track power transformer  
11 outages?  
12 (b) Given the importance of the asset does Hydro plan to track power  
13 transformer outages in the future?  
14

15 **PUB-NLH-017** Hydro states on page 14, lines 24-26, that it is recommending the installation of  
16 an online oil dehydrator to address an issue with excessive moisture content  
17 within a transformer located at the Wabush Terminal Station.

- 18 (a) Is this oil dehydrator a permanent or temporary installation?  
19 (b) If temporary can it be reused on another transformer should the need  
20 arise?  
21

22 **Program 6 - Distribution System In-Service Failures, Miscellaneous Upgrades & Street Lights**  
23 **(2023)**  
24

25 **PUB-NLH-018** On page i, lines 21-22, Hydro states that the 2023 budget estimate of \$3,986,000  
26 for this program is based on the average expenditures over the past three years  
27 (2019 to 2021). However, in its 2022 capital budget application (Tab 20, page 2)  
28 Hydro provided the historical expenditures for a five-year period and stated  
29 that, based on historical expenditures, Hydro forecasts an anticipated project  
30 estimate for the following year.

- 31 (a) Please explain why Hydro has changed its methodology of developing a  
32 budget estimate for this program in its 2023 Capital Budget.  
33 (b) According to Chart 2 on page 6, the 2021 historical expenditures were  
34 significantly higher than 2019 and 2020 historical expenditures. Does  
35 Hydro view 2021 as an anomaly and, if so, was that factored into the  
36 calculation of the 2023 budget estimate? If it wasn't factored into the  
37 calculation, please explain the rationale for not doing so.  
38

39 **Program 8 - Major Condition Assessment and Miscellaneous Refurbishments Synchronous**  
40 **Condensers 1 and 2 (2023-2024) - Wabush Terminal Station, Page 2, Lines 1-2**  
41

42 **PUB-NLH-019** Hydro states that synchronous condenser level II condition assessments are  
43 performed on a three-year cycle and that Synchronous Condenser 2 had its last  
44 level II condition assessment completed in 2020. Please explain why the 2023  
45 project to perform a level II condition assessment on Synchronous Condenser 2

1 (\$577,200) is identified within Table 5 of Schedule 1 - 2023 Capital Budget  
2 Overview, as being previously deferred.

3  
4 **Program 11 - Replace Light and Heavy-Duty Vehicles (2023-2025)**

5  
6 **PUB-NLH-020** Hydro states on page i, lines 22-26, that it is still reviewing its practices with  
7 respect to its light-duty fleet after a one-year gap period in purchases that Hydro  
8 announced in its 2022 capital budget application.

9 (a) Has Hydro completed any report/analysis detailing its learnings to date  
10 during the 2022 gap year? If so, please provide the report and/or analysis.

11 (b) When does Hydro plan to complete its fleet optimization strategy?  
12

13 **PUB-NLH-021** Considering that the lead time required for the purchase of heavy-duty vehicles  
14 can be up to three years, does Hydro order based on the vehicle reaching the  
15 replacement criteria at the time the order is placed or does Hydro order based  
16 on the vehicle reaching the replacement criteria at the time of anticipated  
17 delivery of the new vehicle? Please discuss.  
18

19 **Program 13 - Thermal In-Service Failures**

20  
21 **PUB-NLH-022** On page i, lines 18-19, Hydro states that the 2023 budget estimate of \$3,300,000  
22 for this program is based on the average expenditures over the past three years  
23 (2019 to 2021). According to Chart 2 on page 6, the 2021 expenditures were  
24 significantly higher than 2019 and 2020 expenditures. Does Hydro view 2021 as  
25 an anomaly and, if so, was that factored into the calculation of the 2023 budget  
26 estimate? If it wasn't factored into the calculation, please explain the rationale  
27 for not doing so.  
28

29 **Program 17 - Gas Turbine In-Service Failures (2023), Page 1, Lines 17-19**

30  
31 **PUB-NLH-023** Under this program Hydro states that it is proposing to undertake the immediate  
32 capital refurbishment and replacement work required for its gas turbines, as  
33 needed, to maintain safe and reliable operations and to ensure the availability  
34 of capital spares required to support such work. Table 5 of Schedule 1 - 2023  
35 Capital Budget Overview identifies the purchase of capital spares for gas  
36 turbines (\$344,200) as a proposal that had been previously deferred.

37 (a) Please confirm that Program 17 will be utilized in 2023 to purchase capital  
38 spares for Hydro's gas turbines as indicated within Table 5. If yes, please  
39 identify the capital spare(s) that Hydro plans to purchase. If no, please  
40 explain the why it is referenced as such within Table 5.

41 (b) Please detail the need for additional capital spares with respect to gas  
42 turbines given that the Stephenville gas turbine is scheduled for  
43 decommissioning and the Hardwoods gas turbine will not be used for  
44 generation when the LIL is commissioned.

45 (c) Please detail the potential consequences of a further deferral of the  
46 purchase of additional capital spares for the gas turbines.

1 **Program 21 - Purchase Mobile Devices (2023), Page i, Lines 8-9**  
2

3 **PUB-NLH-024** Hydro states that it replaces mobile devices every three years and does not  
4 consider life cycle extension as a viable alternative. Is this replacement policy  
5 consistent with the replacement policies of other electric utilities in Canada? If  
6 yes, please provide details. If not, please provide the rationale for not following  
7 the practice of other electric utilities in Canada.  
8

9 **Project 9 - Install Oil Spill Containment Transformer T1S (2023-2024) - Cat Arm, Page 2, Lines 2-6**  
10

11  
12 **PUB-NLH-025** Hydro states that Transformer T1S was purchased in 1984 and served the Cat  
13 Arm Hydroelectric Generating Station until it was removed from service in 2016  
14 in accordance with Hydro's power transformer replacement criteria and that the  
15 transformer was originally planned for disposal. However, following  
16 decommissioning, Hydro decided to retain the transformer as a dedicated spare  
17 for the generating station.

- 18 (a) Why did Hydro decide to keep the transformer as a spare given that it had  
19 to be replaced under Hydro's power transformer replacement criteria?  
20 (b) What repairs/refurbishments were performed on the transformer prior to  
21 it being deemed a spare and what repairs/refurbishments, if any, are  
22 anticipated in order to maintain the transformer as a spare.  
23 (c) Hydro's 5-year capital plan submitted as part of the 2022 capital budget  
24 application estimated this project to be \$50,000 in 2023 and \$150,000 in  
25 2024 for a total project cost of \$200,000. Hydro currently estimates the  
26 total project cost to be \$581,000. Please explain this increase.  
27

28 **Project 15 - Replace Data Alarm System Annunciators (2023-2024), Page 1, Lines 9-11**  
29

30 **PUB-NLH-026** Hydro states that greater granularity of the alarms displayed on the annunciator  
31 enables field staff to more efficiently respond to equipment issues.

- 32 (a) Will the proposed replacement require any groupings of alarms?  
33 (b) What is Hydro's philosophy on alarm groupings should the need arise?

**DATED** at St. John's, Newfoundland and Labrador, this 24<sup>th</sup> day of August, 2022.

**BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

Per

  
Cheryl Blundon  
Board Secretary