



Public Utilities Board

NEWFOUNDLAND & LABRADOR

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E-mail: shirleywalsh@nlh.nl.ca

2024-08-29

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 - 2025 Capital Budget Application
To NLH - Requests for Information**

Enclosed are Requests for Information PUB-NLH-001 to PUB-NLH-063 regarding the above-noted application.

If you have any questions, please do not hesitate to contact Board Legal Counsel, Katie Philpott, by email kphilpott@pub.nl.ca or by telephone 709-726-3039.

Sincerely,

Jo-Anne Galarneau
Board Secretary

JG/cj
Enclosure

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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 2025, pursuant to
11 section 41(1) of the **Act**;
12 ii) its proposed capital purchases and construction
13 projects for 2025 in excess of \$750,000, pursuant
14 to section 41(3)(a) of the **Act**;
15 iii) contributions by certain Customers for contributions
16 towards the cost of improvements to certain property,
17 pursuant to section 41(5) of the **Act**, and
18 iii) for an Order pursuant to section 78 of the **Act**,
19 fixing and determining its average rate base for
20 2023.

**PUBLIC UTILITIES BOARD
REQUESTS FOR INFORMATION**

PUB-NLH-001 to PUB-NLH-063

Issued: August 29, 2024

1 **General**

2

3 **PUB-NLH-001** Further to the response to PUB-NLH-082 from Hydro's 2024 Capital Budget
4 Application, please provide an update on when the report on the economic
5 and technical assessment of Hydro's mini-hydro generating stations which was
6 completed in 2022 will be filed with the Board.

7

8 **PUB-NLH-002** Hydro's 2025 Capital Budget Application is the second budget filed since the
9 increase in the threshold approval amount to \$750,000. How has this impacted
10 Hydro's capital budget process?

11

12 **PUB-NLH-003** Does Hydro apply the same decision-making process to projects under
13 \$750,000 as it does for projects over \$750,000 to determine if these projects
14 should be included or deferred?

15

16 **PUB-NLH-004** Please detail the capital investments reflected in the 2025 Capital Budget
17 Application and the five-year capital plan to address the projected conversions
18 to electric vehicles and conversions from oil heating to electric heating.

19

20 **PUB-NLH-005** Hydro has a number of capital programs in its capital budget. Given the current
21 circumstances of regular increases in capital expenditures, what would be the
22 impacts (both financial and operational) of reducing the budget for capital
23 programs (i.e. not specific capital projects) in the range of 3% to 5%?

24

25 **PUB-NLH-006** a) Please describe which projects in Hydro's 2025 Capital Budget Application
26 are most susceptible to completion delays due to supply chain challenges.
27 b) How have supply chain challenges been reflected in the timelines of
28 projects that are most at risk of delay in completion?

29

30 **PUB-NLH-007** a) Has Hydro prepared a climate change adaptation strategy? If so, please
31 provide.
32 b) Does Hydro believe a climate change adaptation strategy would provide
33 clarity on the investments required to provide grid resiliency and reliability
34 for the future?

35

36 **PUB-NLH-008** Some of Hydro's programs do not include a contingency (i.e. Provide Service
37 Extensions, Wood Pole Line Management, Thermal In-Service Failures,
38 Terminal Station In-Service Failures, Hydraulic In-Service Failures, and Diesel
39 In-Service Failures). What is Hydro's methodology for determining when a
40 contingency should be included in a program estimate?

41

42 **PUB-NLH-009** Some of Hydro's in-service failure programs do not include interest and
43 escalation costs (i.e. Thermal In-Service Failures, Hydraulic In-Service Failures,
44 and Diesel In-Service Failures). When are interest and escalation costs
45 included in program estimates?

- 1 **PUB-NLH-010** Some of Hydro's programs refer to increases or escalations in labour costs (i.e.
 2 Distribution System In-Service Failures, Miscellaneous Upgrades and Street
 3 Lights, Thermal In-Service Failures, Terminal Station In-Service Failures,
 4 Hydraulic In-Service Failures, Diesel In-Service Failures). How does Hydro
 5 determine which projects are exposed to labour cost increases?
 6
- 7 **PUB-NLH-011** a) Please identify any capital expenditures reflected in either the 2025 capital
 8 budget or the five-year capital plan associated with advancement of the
 9 use of operational technologies.
 10 b) Please provide an update on Hydro's plan to advance the use of operational
 11 technology and the capital investments required.
 12
- 13 **PUB-NLH-012** a) Please describe any proposed projects in Hydro's 2025 Capital Budget that
 14 require consultation with Indigenous peoples prior to project
 15 advancement. Have any consultations on these projects occurred to date?
 16 b) What process does Hydro follow to determine if Indigenous consultations
 17 are required for its planned capital projects?
 18
- 19 **Schedule 1 2025 Capital Budget Overview**
 20
- 21 **PUB-NLH-013** Page ii. Has Hydro's processes and/or strategies changed in the development
 22 of its 2025 Capital Budget Application considering government's commitment
 23 to cap domestic rate increases to 2.25% annually?
 24
- 25 **PUB-NLH-014** Page 2. Hydro states that the proposals totalling \$135.7 million represent an
 26 increase in capital expenditures in 2025. In Hydro's 2024 Capital Budget
 27 Overview the forecast for the 2025 capital expenditures was \$97.3 million.
 28 This represents an increase of \$38.4 million, or a 39% increase. Please explain
 29 why Hydro was unable to maintain the lower budget amount for 2025.
 30
- 31 **PUB-NLH-015** Page 6. Hydro states it continues to improve its asset management systems,
 32 with an emphasis on the implementation of processes to improve and expand
 33 on asset and maintenance data.
 34 a) Please describe how Hydro has incorporated the Technical Report – Asset
 35 Management Needs and Readiness Assessment filed in the response to
 36 Request for Information PUB-NLH-065 of the 2024 Capital Budget
 37 Application into the continuous improvement of its asset management
 38 system.
 39 b) Does Hydro plan to undertake a third-party asset management maturity
 40 assessment of its asset management system? If yes, when is the asset
 41 management maturity assessment planned to be completed? If not, why
 42 not?
 43 c) The response to Request for Information PUB-NLH-066 of the 2024 Capital
 44 Budget Application identified 39 recommendations broken down into 6
 45 categories to improve the maturity of Hydro's asset management. Please

1 describe efforts taken over the past year to address these
2 recommendations.

3 d) Please describe Hydro's approach to employing operational technology to
4 support asset management.

5
6 **PUB-NLH-016** Pages 12-18, charts 2-13. Is the Electricity Canada Region 2 reliability data for
7 2023 available? If yes, please update the identified charts.

8
9 **PUB-NLH-017** Page 34, footnote 48. Hydro states that it is required under Canadian
10 environmental regulations to remove and dispose of all equipment containing
11 greater than 50 parts per million of PCBs by December 31, 2025. Is Hydro on
12 schedule to fully comply with the December 31, 2025 Government of Canada
13 deadline?
14

15 **Schedule 2 Five Year Capital Plan (2025-2029)**

16
17 **PUB-NLH-018** Please provide the five-year capital plan breakdown by investment
18 classification for the Labrador Interconnected System.

19
20 **PUB-NLH-019** a) Does Hydro's five-year capital plan reflect a transmission expansion plan
21 updated for 2025? If no, why not?
22 b) At page 3 Hydro states that transmission capacity expansion will also be
23 required to address transmission bottlenecks in support of Hydro's
24 expansion plans. Is the capital expenditure estimate for this transmission
25 expansion included in the approximately \$1.86 billion in plant and
26 equipment identified for the 2025-2029 period?
27

28 **Schedule 5 2024 Capital Expenditures Overview**

29
30 **PUB-NLH-020** Page 2, Table 1. For each line item in Table 1 with a forecast variance identified,
31 please provide a detailed breakdown of all major expenditures anticipated.
32 Also, identify any attempt by Hydro to mitigate the amount of the forecast
33 variance.
34

35 **PUB-NLH-021** Page 7. Hydro states that the Upgrade Energy Management System (2024)
36 program cannot be completed in 2024 due to the vendor not being able to
37 complete the work.

38 a) What risk is Hydro exposed to by not addressing until 2025 the security
39 vulnerabilities identified in the program?
40 b) Please identify where the Energy Management System software upgrades
41 are included in the 2025 Capital Budget Application?
42

43 **PUB-NLH-022** Pages 14. Hydro has determined that the planned 1,067 kW, 1,200 rpm genset
44 was larger than required and a genset sized between 700 kW and 850 kW at
45 1,800 rpm is sufficient. Please describe how Hydro determined that the

- 1 smaller genset was adequate and how the smaller genset will still allow for the
2 necessary contingencies under various operating conditions to be met.
3
- 4 **PUB-NLH-023** Page B-14. Hydro states it makes strategic decisions to delay program work to
5 future years based on updated asset condition information, updated electrical
6 system planning requirements, or improved execution plans. As some
7 programs are recurring every year, is the work delayed from one year to the
8 next treated as cancelled or carried over to a future year?
9
- 10 **PUB-NLH-024** Pages B-38-52. Hydro has provided tables showing budget, actual
11 expenditures, and variances for the projects and programs completed in 2023.
12 Some tables include both annual and program data, while others only provide
13 program or annual data. What is Hydro's rationale for reporting cost data
14 differently?
15
- 16 **PUB-NLH-025** Page B-39. The overall project expenditure for Replace Powerhouse Station
17 Service Panel (2023-2024) - Upper Salmon was \$543,000 or 35% over-budget.
18 a) Please explain when Hydro initially became aware of the magnitude of the
19 additional project cost.
20 b) Please outline Hydro's rationale for continuing to spend capital on the
21 project prior to further evaluation from the Board.
22
- 23 **PUB-NLH-026** Pages B-41-42. Hydro states that the variance in the budget for the Wood Pole
24 Line Management Program was primarily attributable to environmental
25 mitigation activities and that the amount and depth of bog and wetlands
26 requiring mitigation were significantly higher than anticipated.
27 a) In determining the original budget for the program, did Hydro review the
28 route looking for particular areas such as bog that could and most likely
29 would put pressure on the budget? If not, why?
30 b) Given the additional costs incurred on environmental mitigation activities,
31 what steps has Hydro taken to ensure these issues are not repeated with
32 the 2025 budget for this program?
33 c) Please detail Hydro's approach to ensuring environmental requirements
34 are adequately reflected in cost estimates.
35 d) What would be the advantages and disadvantages of having
36 environmental approvals of capital programs/projects completed prior to
37 submitting for approval by the Board?
38
- 39 **PUB-NLH-027** Pages B-42-43. Hydro states the Upper Salmon Hydroelectric Generating
40 Station Rotor Rim Shrinking and Stator Recentering (Supplemental) is a two-
41 year supplemental project (2022-2023) that was completed in 2023. The
42 variance in 2023 and overall project expenditures is attributed to five items. In
43 a table, show the budget, actual expenditures and variance for each item and
44 in aggregate to show each item's contribution to the \$5.1 million project
45 variance.

- 1 **PUB-NLH-028** Page B-46-47. Hydro states that Replace Transformer T7 - Holyrood is a one-
 2 year project (2020) that has extended into 2024 with the variances in overall
 3 project expenditures attributed to higher-than-originally estimated
 4 transformer transportation costs. In its response to Request for Information
 5 NP-NLH-054 of its 2020 Capital Budget Application, Hydro provided a table
 6 showing the Project Scope Cost Breakdown to Replace Transformer T7 -
 7 Holyrood Terminal Station Project.
- 8 a) Please provide an updated to that table by adding a column that shows
 9 the actual breakdown of project expenditures for comparison with
 10 project budget.
- 11 b) Due to the difficulties experienced in executing this project what lessons
 12 were learned from the relocation of Transformer T31 from Churchill Falls
 13 to Holyrood?
 14
- 15 **PUB-NLH-029** Page B-48. Hydro states that Replace Underground Firewater Distribution
 16 System - Holyrood is a two-year project (2022-2023) that has carried over into
 17 2024. The amounts listed in the table on page B-48, and the amounts on page
 18 B-59 do not agree. Please confirm the budget, actual expenditures, and
 19 variance amount.
 20
- 21 **PUB-NLH-030** Page B-52. Hydro states that Upgrades for Future Retirement of Stephenville
 22 Gas Turbine is a two-year project (2021-2022) that commenced in 2021 and
 23 has carried over into 2024. Hydro is expecting to finalize a decision in 2024 to
 24 cancel most of the remaining scope of this project, as the planned retirement
 25 of Stephenville Gas Turbine has been deferred beyond 2024.
- 26 a) Has Hydro finalized a decision to cancel most of the remaining scope of
 27 this project? If yes, describe the work completed to date, if not, what is
 28 being deferred beyond 2024?
- 29 b) What depreciable life does Hydro use for capital investments on these
 30 assets?
 31
- 32 **Program 1 Overhaul Turbine and Valves Unit 3**
 33
- 34 **PUB-NLH-031** Page 12 of the Provisional Capital Budget Application Guidelines (“Provisional
 35 Guidelines”) define programs as capital investments comprised of a number
 36 of asset-related activities that are (i) high volume, (ii) repetitive, and (iii) like-
 37 for-like capital replacements, enhancements, or additions that are expected
 38 to continue into the foreseeable future. Please explain how the overhaul of
 39 the turbine, turbine valves, and steam chest welding crack repair conforms
 40 with the definition of program as established in the Provisional Guidelines.
 41
- 42 **PUB-NLH-032** Page 12. It is stated that in 2024, GE was engaged to study repair and
 43 replacements options for the Unit 3 steam chest crack. Please provide a copy
 44 of this study.

1 **Program 2 Upgrade Worst-Performing Distribution Feeders (2025-2027)**

2

3 **PUB-NLH-033** Page 12. Hydro states that reconstruction of this section of EHW-L1 will be
4 completed with higher class poles, armless constructions, anti-cascade
5 structures, shorter spans, standard insulators and new conductors. Is this
6 section of EHW-L1 being constructed to the CSA Standard C22.3 No. 1-15
7 Overhead Systems and if so, to what design ice loading specification?

8

9 **PUB-NLH-034** Page 15. Hydro states that reconstruction of this section of EHW-L1 will include
10 reclosers and fault indicators along the feeder. Will these reclosers and fault
11 indicators be automated for remote monitoring and control? If yes, describe
12 the automation. If not, why not?

13

14 **Program 3 Replace Light- and Heavy-Duty Vehicles (2025-2027)**

15

16 **PUB-NLH-035** a) Given the differences in both delivery time and cost, what is Hydro's
17 rationale for combining heavy-duty and light-duty vehicles under one
18 program and for including light-duty vehicles in a multi-year program?
19 b) Please separate Table 3 on page 9 to show the costs of light-duty vehicles
20 and the costs of heavy-duty vehicles.
21 c) Please provide a table showing the number of light-duty and the number
22 of heavy-duty vehicles in Hydro's fleet over the past 10 years. Please
23 explain any trends in the magnitude of each type of vehicle.

24

25 **PUB-NLH-036** Page 1, Table 1: Replacement Criteria. The replacement criteria for heavy duty
26 vehicles (Classes 4 and 6) is listed as 9 years or 200,000 kilometres. In Hydro's
27 2024 Capital Budget Application, the replacement criteria for heavy duty
28 vehicles (Classes 4 and 6) was listed as 6 to 8 years or 200,000 kilometres.
29 a) Why did Hydro increase the years of service replacement criteria in its
30 2025 capital budget?
31 b) How does the replacement criteria presented in the 2025 budget compare
32 to practices of other Canadian utilities?

33

34 **PUB-NLH-037** Page 8, Footnote 4. It is stated that "Where appropriate, Hydro will consider
35 electric vehicles during the procurement process. Vehicles will be selected
36 based on their suitability for their intended purpose, as well as life-cycle cost."
37 a) Is the replacement criteria for electric vehicles the same as internal
38 combustion engine vehicles?
39 b) What update can Hydro provide with respect to its operating experience
40 with electric vehicles and charging equipment?

1 **Program 4 Distribution System In-Service Failures, Miscellaneous Upgrades and Street Lights**
 2 **(2025)**

3

4 **PUB-NLH-038** Page i. Hydro states that the program estimate includes an addition of
 5 \$1,042,442 for the purchase of a new capital spare substation power
 6 transformer.

7 a) Please provide additional details on the spare power transformer including
 8 voltages, MVA rating, winding configuration and where it could be
 9 deployed in Hydro's system.

10 b) Please provide a listing of all in service power transformers that the spare
 11 transformer will provide backup. Identify if any of the in-service power
 12 transformers are in an N-1 configuration.

13 c) Please provide a listing of Hydro's existing inventory of spare power
 14 transformers, including voltages, MVA rating, winding configuration, etc.

15 d) For Hydro's existing inventory of spare power transformers, please provide
 16 a listing of which in-service power transformers can be backed up by each
 17 power transformer in the spare inventory.

18 e) Has Hydro consulted with Newfoundland Power to coordinate the
 19 inventory of spare transformers to minimize cost to customers?
 20

21 **PUB-NLH-039** Page 7. Hydro states that the one-time purchase of a capital spare substation
 22 transformer will occur in 2025 only. With the current long lead times for the
 23 manufacturer and delivery of power transformers, is the one-year time frame
 24 realistic?
 25

26 **PUB-NLH-040** Page 12 of the Provisional Guidelines states "Generally, programs comprise
 27 assets with individual asset values significantly less than the lowest materiality
 28 threshold (e.g., distribution pole top transformer replacements, *but not*
 29 *substation transformer replacements*), but evidentiary requirement is based
 30 on the overall program budget." The Distribution System In-Service Failures,
 31 Miscellaneous Upgrades and Street Lights (2025) program includes the
 32 purchase of a spare power transformer at an estimated budget of
 33 approximately \$1 million. Please explain how this program conforms with the
 34 materiality threshold established in the Provisional Guidelines, and more
 35 specifically the inclusion of a power transformer in the program.
 36

37 **Program 5 Replace Diesel Gensets (2025-2027)**

38

39 **PUB-NLH-041** Page 2. Hydro states that the final year in the forecast puts the expected peak
 40 load at 6,238kW, which is 93% of the L'Anse-au-Loup station's firm capacity of
 41 6,700kW.

42 a) Does Hydro consider mobile units as part of its firm capacity?

43 b) What is the firm capacity if the mobile unit isn't considered firm?

44 c) What will be the firm capacity if Unit 2005 is replaced with a 1,500kW unit?

45 d) What will be the firm capacity if Unit 2005 is replaced with a 1,500kW unit
 46 and Unit 2041 is not replaced?

- 1 e) When Unit 2005 is replaced with a 1,500kW unit, will the mobile unit still
2 be required?
3

4 **Program 6 Overhaul Hydraulic Units (2025)**
5

6 **PUB-NLH-042** Page 12 of the Provisional Guidelines states “Generally, programs comprise
7 assets with individual asset values *significantly less than the lowest materiality*
8 *threshold* (e.g., distribution pole top transformer replacements, but not
9 substation transformer replacements), but evidentiary requirement is based
10 on the overall program budget.” The Overhaul Hydraulic Units (2025) program
11 involves the overhaul of hydraulic units BDE units 1 and 2 at an estimated
12 budget of approximately \$5 million. Please explain how this program conforms
13 with the materiality threshold established in the Provisional Guidelines.
14

15 **Program 8 Provide Service Extensions (2025)**
16

17 **PUB-NLH-043** Pages 2-3. Hydro states, “As this is a customer-driven program that includes a
18 range of scopes and costs, actual historical costs per year tend to
19 fluctuate...Costs per service request vary greatly depending on the nature of
20 the request and the magnitude of infrastructure modifications required to
21 accommodate the request. Hydro does not currently have sufficient data to
22 calculate historical costs per service request.
23 a) What additional information does Hydro need to be able to calculate
24 historical cost per service request?
25 b) Given the range of scopes and costs, what is Hydro’s rationale for grouping
26 new service requests (“NSRs”) together under one program?
27 c) What is the industry best practice with respect to separation/grouping of
28 NSRs?
29 d) Please provide the breakdown of the \$4,662,500 proposed capital
30 expenditure by type of new service request.
31

32 **Program 9 Replace Mobile Equipment (2025-2027)**
33

34 **PUB-NLH-044** Page 1. Hydro states that the mobile equipment fleet includes wheeled heavy
35 construction equipment such as excavators and loaders.
36 a) Are there wheeled heavy construction equipment such as excavators and
37 loaders available to rent from construction companies in Hydro’s service
38 territory?
39 b) Has Hydro completed a study comparing the cost to own and operate this
40 heavy construction equipment with the cost of renting the equipment
41 when required? If yes, provide the study. If not, why not?
42

43 **PUB-NLH-045** Page 3. Hydro states that most heavy-duty mobile equipment assets were not
44 included in previous iterations of this program and were typically proposed in
45 past Capital Budget Applications as individual projects. Hydro also states that

1 it has identified opportunities for potential efficiencies by including these
2 assets in this program going forward.

- 3 a) Given the differences in both delivery time and cost, what is Hydro's
4 rationale for combining heavy-duty assets and non-heavy duty assets
5 under one program? Specifically, please explain the opportunities referred
6 to and quantify, where possible, the efficiencies achieved.
7 b) Please provide a table showing the number of heavy-duty assets broken
8 down by type and the number of non-heavy duty assets broken down by
9 type in Hydro's fleet over the past 10 years. Please explain any trends in
10 the magnitude of each type of asset.

11
12 **Program 10 Wood Pole Line Management (2025)**

13
14 **PUB-NLH-046** Page 9. Hydro states that it is forecasting a sizeable increase in pole
15 replacements for the years 2026 and 2027. The forecasted numbers were
16 determined through Iowa curves found in Appendix A.

- 17 a) Please explain in detail how the Iowa curves in Appendix A support the
18 realistic forecasting of the remaining life of groups of assets.
19 b) Figure A-1 in Appendix A shows a curve for the industry benchmark and
20 Hydro's current projection. What is the average service life for each of
21 these curves?

22
23 **Program 12 Replace Protective Relays (2025–2026)**

24
25 **PUB-NLH-047** Appendix A. Hydro included a five-year plan identifying the assets planned for
26 replacement from 2025 to 2029 under this program. After the 2025-2029 plan
27 is executed, what is left to be replaced? Specifically, when will replacement of
28 the 230kv relays be complete?

29
30 **Program 14 Hydraulic In-Service Failures (2025)**

31
32 **PUB-NLH-048** What is Hydro's approach to planned refurbishment of hydraulic structures,
33 reservoirs, site buildings, site services, and auxiliary equipment outside of its
34 in-service failure program?

35
36 **Program 16 Purchase Tools and Equipment (2025)**

37
38 **PUB-NLH-049** Page 4. Hydro states that the increased expenditures in 2025 are primarily due
39 to increased live line work in 2025, replacement of deteriorated tools or
40 equipment, and retired safety equipment.

- 41 a) Is there an increase in the normal purchases related to replacement of
42 deteriorated tools or equipment and safety equipment for 2025? If so,
43 please explain.
44 b) Given the reasons for the material increase in expenditures in 2025 relative
45 to past experience, please explain why the expenditures for 2026 to 2029
46 are projected to be the same as 2025.

1 **PUB-NLH-050** Page 5. Hydro states that the main milestone for this program is to have the
 2 identified tools and equipment on-site as required and before the end of 2025.
 3 Given supply chain challenges and long lead time for ordering and delivery of
 4 certain items, does Hydro believe this timeframe is realistic?
 5

6 **Program 17 Replace Disconnects (2025-2026)**
 7

8 **PUB-NLH-051** a) Under the current pace for replacement reflected in the forecast for 2025-
 9 2029, in what year will all the disconnect switches which have currently
 10 been in service >50 years be replaced?
 11 b) Further to a), what is Hydro's plan for replacing disconnect switches that
 12 are not currently > 50 years but will be or will be approaching 50 years
 13 when the current pace for replacement is complete?
 14 c) Does Hydro consider the pace of the proposed replacements adequate to
 15 ensure proper operation of disconnect switches, which are essential for a
 16 safe work environment and terminal station reliability? If yes, how did
 17 Hydro reach that conclusion?
 18

19 **Program 18 Renew Circuit Breakers (2025-2026)**
 20

21 **PUB-NLH-052** Please confirm that both oil and SF6 circuit breakers are included in this
 22 program.
 23

24 **Program 19 Overhaul Major Pumps (2025) - Holyrood**
 25

26 **PUB-NLH-053** Page 4. Hydro states that both Unit 3 north and south vacuum pumps
 27 underwent major overhaul and were returned to service in the fall of 2021.
 28 However, performance issues persisted, including high vibration, and the Unit
 29 3 south vacuum pump was replaced in 2023. Is the Unit 3 north vacuum pump
 30 also currently experiencing performance issues with elevated and continuous
 31 vibration while in operation? If not, is the proposal to replace the Unit 3 north
 32 vacuum pump a precautionary measure given Hydro's experience with the
 33 Unit 3 south vacuum pump?
 34

35 **Program 21 Perform Software Upgrades and Minor Enhancements (2025)**
 36

37 **PUB-NLH-054** Page 7, Chart 1. There is a significant increase in forecast program cost over
 38 the period from 2024 to 2029 when compared with the period from 2019 to
 39 2023. What factors are driving these cost increases?
 40

41 **Project 1 Rewind Stator (2025–2026) – Hinds Lake**
 42

43 **PUB-NLH-055** Attachment 2, page 15 of 16. Qualitrol's Partial Discharge Test Report
 44 recommended retesting the unit in 6 months. Did Hydro retest the unit as
 45 recommended? If yes, what were the results? If no, why not?

1 **PUB-NLH-056** Pages 5-6. Hydro states a follow-up visual inspection was recommended by a
 2 third-party consultant. Hydro conducted this inspection in April 2024 and
 3 based on what was observed, determined that stator winding replacement
 4 was required. Were the results of the visual inspection shared with Hydro's
 5 third-party consultant to confirm the need to replace the stator winding? If no,
 6 why not? If yes, did the third-party consultant agree with Hydro's plan for a
 7 stator winding replacement? Please provide any reports/opinions obtained.

8

9 **Project 5 Install Mid-Span Structures - TL220 (2025-2026)**

10

11 **PUB-NLH-057** Page 6. Hydro is proposing building two of the eleven mid-span structures in
 12 wetlands.

13 a) What, if any, environmental assessments have been conducted?

14 b) What are the potential construction challenges associated with building in
 15 wetlands? How has Hydro planned for these challenges?

16

17 **PUB-NLH-058** The five-year capital plan includes Relocate Section of Line (2026-2028) -
 18 TL220, a multi-year project with costs of approximately \$3.7 million. Please
 19 explain the relationship between the 2025 project to install mid-span
 20 structures and the multi-year project to relocate a section of TL220.

21

22 **Project 6 Replace Interconnect Microwave Radios (2025)**

23

24 **PUB-NLH-059** Page 2. Hydro states that this project will replace the functionality of the
 25 interconnect radio system and upgrade available bandwidth by establishing a
 26 new fibre-optic transport link between the eastern and western microwave
 27 radio systems on fibres contained in the Labrador-Island Link ("LIL") Optical
 28 Ground Wire ("OPGW") cable.

29 (a) Does the use of the LIL OPGW to provide connectivity to terminal stations
 30 and generating stations on the Island create a risk to reliability if a
 31 structure failure on the LIL damages the OPGW? For example, if the OPGW
 32 were damaged by a LIL structure failure along the section of line where the
 33 fibres are shared, would critical systems like SCADA data and transmission
 34 line protection on the Island Interconnected System be compromised?

35 (b) Has Hydro explored fibre optic cable alternatives other than the fibre optic
 36 OPGW solution proposed? If yes, please provide details. If not, why not?

37

38 **Project 7 Upgrade Work Protection Code Application (2025-2026)**

39

40 **PUB-NLH-060** Page 6. Hydro suggests this project will provide benefit to both regulated and
 41 non-regulated operations and that the project cost will be split using Hydro's
 42 intercompany guidelines and allocated based on users. Please identify any
 43 other capital proposals included in the 2025 Capital Budget which will benefit
 44 both regulated and non-regulated entities and confirm that the cost allocation
 45 will be determined using the intercompany guidelines.

46

1 **Programs and Projects Under \$750,000**

2

- 3 **PUB-NLH-061** Page 1, Install Electric Vehicle Chargers (2025-2026) – Hydro Sites. Hydro
 4 states it intends to install twenty Level 2 electric vehicle (“EV”) chargers at six
 5 Hydro-owned sites across the province.
 6 a) How many EVs and Level 2 EV chargers are currently at each of the Hydro
 7 sites?
 8 b) Is it Hydro’s plan to include the capital expenditures for the EV chargers in
 9 capital assets, and subsequently, in rate base? Or, does Hydro plan to
 10 include the chargers in the Electrification Cost Deferral Account for future
 11 recovery? Please explain.
 12 c) In Order P.U. 30(2021), at page 13, the Board stated “In future years the
 13 utilities will have to demonstrate that further capital expenditures for
 14 additional EV charging stations are justified in the circumstances.”
 15 i. How are the proposed EV chargers justified to be used and useful for
 16 the purpose of including in rate base?
 17 ii. Will the proposed chargers be available for public use?
 18
- 19 **PUB-NLH-062** Page 6, Perform Level 2 Condition Assessment - Powerhouse Slope (2025) - Cat
 20 Arm. Hydro states that rock and debris can regularly be found at the base of
 21 the rock face and, occasionally, in close proximity to the Cat Arm powerhouse,
 22 creating a safety concern for workers as well as the reliable operation of the
 23 powerhouse and associated equipment. How is Hydro addressing these safety
 24 and reliability concerns in the interim?
 25
- 26 **PUB-NLH-063** Page 7, Update Cybersecurity Infrastructure (2025). Aside from the Update
 27 Cybersecurity Infrastructure program, are there any other capital
 28 expenditures in Hydro’s 2025 Capital Budget that enhance cybersecurity?

DATED at St. John’s, Newfoundland this 29th day of August, 2024.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per



Jo-Anne Galarneau

Executive Director and Board Secretary