

**NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES**

AN ORDER OF THE BOARD

NO. P.U. 28(2023)

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 by
8 Newfoundland and Labrador Hydro for
9 approval of a capital expenditure for the
10 purchase of a Spare Generator Step-Up
11 Transformer, pursuant to section 41 of
12 the **Act**.
13
14

15 **WHEREAS** Newfoundland and Labrador Hydro (“Hydro”) is a corporation continued and existing
16 under the **Hydro Corporation Act, 2007**, is a public utility within the meaning of the **Act**, and is
17 also subject to the provisions of the **EPCA**; and
18

19 **WHEREAS** pursuant to section 41 of the **Act** and **Public Utilities Regulations**, NLR 40/23, a public
20 utility shall not proceed with the construction, purchase or lease of improvements or additions
21 to its property where the cost of construction or purchase is in excess of \$750,000 without prior
22 approval of the Board; and
23

24 **WHEREAS** in Order No. P.U. 2(2023), the Board approved Hydro’s 2023 Capital Budget in the
25 amount of \$90,828,700; and
26

27 **WHEREAS** the Board approved supplementary 2023 capital expenditures in:

- 28 (i) Order No. P.U. 6(2023) in the amount of \$2,105,000 for the section replacement and
29 weld refurbishment of Penstock 1 at the Bay d’Espoir Hydroelectric Generating
30 Station; and
31 (ii) Order No. P.U. 12(2023) in the amount of \$3,596,500 for the replacement of the last
32 stage blades on Units 1 and 2 at the Holyrood Thermal Generating Station including
33 the purchase of a second set of last stage blades and an in-situ inspection of the Unit
34 2 turbine last stage blades; and
35 (iii) Order No. P.U. 21(2023) in the amount of \$2,059,800 for the construction and
36 installation of seven ultra-fast Direct Current Fast Chargers electric vehicle chargers;
37 and

1 **WHEREAS** on September 21, 2023 Hydro filed an application (the “Application”) requesting
2 approval of a supplementary capital expenditure of \$7,466,900 for the purchase of a spare
3 generator step-up (“GSU”) transformer; and
4

5 **WHEREAS** the Application states each of Hydro’s generating facilities utilize GSU transformers,
6 without which the associated generating unit would be unable to operate; and
7

8 **WHEREAS** the Application states Hydro has traditionally maintained two spare GSU transformers
9 but these spares were used to replace failed GSU transformers in 2021 and 2022; and
10

11 **WHEREAS** the Application states the GSU transformer that failed in 2022 was repaired and was
12 subsequently utilized to replace another GSU transformer which failed in 2023; and
13

14 **WHEREAS** the Application states Hydro intends to repair the GSU transformer that failed in 2023
15 to be utilized as a spare, however it is limited in its use as it is only suitable as a spare for Bay
16 d’Espoir unit T7 with a derating of the unit and is not suitable as a spare for the Holyrood Thermal
17 Generating Station units; and
18

19 **WHEREAS** the Application states if there were to be more than one GSU transformer failure or a
20 failure of Bay d’Espoir Unit 7 or any of the Holyrood units there would be significant implications
21 for system reliability given the amount of time necessary to procure a GSU transformer and the
22 impact on Hydro’s generation; and
23

24 **WHEREAS** the Application states that it is necessary for Hydro to have a second spare GSU
25 transformer and the purchase of a new 172 MVA GSU transformer that can be utilized as a spare
26 for all generating facilities is necessary; and
27

28 **WHEREAS** the Application was copied to: Newfoundland Power Inc. (“Newfoundland Power”);
29 the Consumer Advocate, Dennis Browne, KC (the “Consumer Advocate”); a group of Island
30 Industrial customers including: Corner Brook Pulp and Paper Limited, Braya Renewable Fuels
31 (Newfoundland) GP Inc., and Vale Newfoundland and Labrador Limited; the communities of
32 Sheshatshiu, Happy Valley-Goose Bay, Wabush, and Labrador City; Linde Canada Inc.; and Teck
33 Resources Limited; and
34

35 **WHEREAS** on September 29, 2023 the Consumer Advocate filed a submission accepting the need
36 for the spare GSU transformer; and
37

38 **WHEREAS** on September 29, 2023 Newfoundland Power submitted that Hydro should procure a
39 spare GSU transformer as expeditiously as possible noting that a lack of adequate spare GSU
40 transformers has significant implications for system reliability and increases the vulnerability of
41 electricity supply; and
42

43 **WHEREAS** Newfoundland Power also submitted that Hydro should assess the implications of a
44 further GSU transformer failure in its upcoming Near-Term Reliability report, specifically
45 addressing the implications of a GSU transformer failure at the Holyrood Thermal Generating

1 Station during the upcoming 2023-2024 winter season and advising how Hydro would address
2 such an event; and

3

4 **WHEREAS** on October 4, 2023 Hydro replied that it will take all necessary steps to obtain the
5 spare GSU transformer as soon as possible and that it will include the loss of a transformer at the
6 Holyrood Thermal Generating Station as a sensitivity in the Near-Term Reliability Report; and

7

8 **WHEREAS** the Board accepts the criticality of Hydro maintaining adequate spare GSU
9 transformers and is satisfied that the proposed supplemental capital expenditure for the
10 purchase of a spare GSU transformer is necessary to ensure that Hydro can continue to provide
11 service which is safe and adequate and just and reasonable; and

12

13 **WHEREAS** given the potential reliability risks associated with inadequate spare GSU transformers
14 and the timelines associated with procuring a new GSU transformer, the Board will require Hydro
15 to report in its upcoming Near-Term Reliability report as to the implications of a further GSU
16 transformer failure and how this failure would be addressed by Hydro until the new GSU
17 transformer has been procured, specifically addressing a GSU transformer failure at the Holyrood
18 Thermal Generating Station.

19

20

21 **IT IS THEREFORE ORDERED THAT:**

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23 1. The proposed capital expenditures in the amount of \$39,600 in 2023, \$1,298,900 in 2024,
24 \$3,966,700 in 2025 and \$2,161,700 in 2026 for purchase of a Spare Generator Step-Up
25 Transformer are approved.

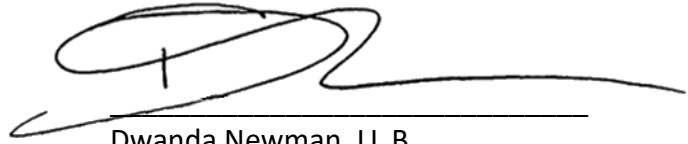
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27 2. Hydro shall report in its upcoming Near-Term Reliability report on the implications of a
28 further generator step-up transformer failure and how this would be addressed by Hydro
29 until the new transformer has been procured.

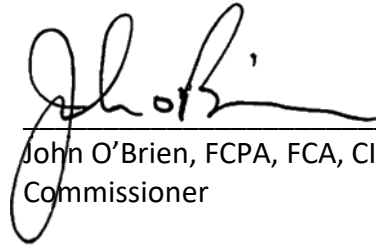
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31 3. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador, this 18th day of October 2023.



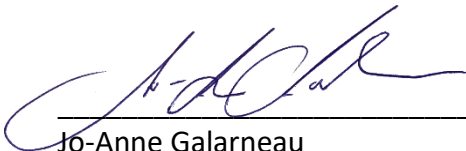
Dwanda Newman, LL.B.
Vice-Chair



John O'Brien, FCPA, FCA, CISA
Commissioner



Christopher Pike, LL.B., FCIP
Commissioner



Jo-Anne Galarneau
Executive Director and Board Secretary