

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

AN ORDER OF THE BOARD

NO. P.U. 25(2018)

1 **IN THE MATTER OF** the *Electrical Power*
2 *Control Act, 1994*, SNL 1994, Chapter E-5.1 (the
3 “*EPCA*”) and the *Public Utilities Act*, RSNL 1990,
4 Chapter P-47 (the “*Act*”), as amended, and regulations
5 thereunder; and
6

7 **IN THE MATTER OF** an application by Newfoundland
8 and Labrador Hydro for approval of a capital expenditure
9 to restore the design performance of the air heaters to
10 increase the generating capacity of Units 1, 2, and 3 at
11 the Holyrood Thermal Generating Station pursuant to
12 section 41 of the *Act*.
13

14
15 **WHEREAS** Newfoundland and Labrador Hydro (“Hydro”) is a corporation continued and
16 existing under the *Hydro Corporation Act, 2007*, is a public utility within the meaning of the *Act*,
17 and is also subject to the provisions of the *EPCA*; and
18

19 **WHEREAS** section 41 of the *Act* states that a public utility shall not proceed with the construction,
20 purchase or lease of improvements or additions to its property where:
21

- 22 a) the cost of construction or purchase is in excess of \$50,000; or
23 b) the cost of the lease is in excess of \$5,000 in a year of the lease
24

25 without prior approval of the Board; and
26

27 **WHEREAS** in Order No. P.U. 43(2017) the Board approved Hydro’s 2018 Capital Budget in the
28 amount of \$170,868,300; and
29

30 **WHEREAS** in Order No. P.U. 5(2018) the Board approved additional 2018 capital expenditures
31 and an amended 2018 Capital Budget for Hydro in the amount of \$181,193,700; and
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33 **WHEREAS** the Board approved supplementary 2018 capital expenditures

- 34 (i) in Order No. P.U. 6(2018) in the amount of \$719,400 to complete voltage
35 conversion of the Labrador City Feeder VA26;
36 (ii) in Order No. P.U. 19(2018) in the amount of \$1,000,000 to be added to the
37 Allowance for Unforeseen Items; and

1 (iii) in Order No. P.U. 23(2018) in the amount of \$1,120,600 to complete Level
2 2 condition assessments on penstocks at Bay d'Espoir; and
3

4 **WHEREAS** on June 1, 2018 Hydro filed an application with the Board requesting approval of a
5 capital expenditure of approximately \$2,560,500 to restore the design performance of the air
6 heaters to increase the generating capacity of Units 1, 2 and 3 at the Holyrood Thermal Generating
7 Station, including the replacement of the hot end air heater baskets in the boilers on each unit and
8 replacement of worn air heater sector plate liners and seals on Unit 3 (the "Application"); and
9

10 **WHEREAS** the Application stated that Units 1, 2 and 3 are currently not able to achieve the
11 maximum continuous ratings of 170 MW, 170 MW and 150 MW, respectively, due to abnormal
12 fouling in the boiler air heater hot end baskets, fouling in the Unit 1 and 2 boiler economizers, and
13 air leakage in the Unit 3 boiler air heaters due to worn sector plate liners and seals; and
14

15 **WHEREAS** the Application explained that as of May 30, 2018 the generating capability of Units
16 1, 2 and 3 has been degraded to 116 MW, 70 MW and 110 MW, respectively, and it is anticipated
17 that the generating capacity of the units will sustain similar or worsening de-ratings during the next
18 operating season if the project does not proceed; and
19

20 **WHEREAS** the Application proposals include the replacement of the hot end air heater baskets
21 in the boilers on each of Units 1, 2 and 3 and replacement of the worn air heater sector plate liners
22 and seals on Unit 3; and
23

24 **WHEREAS** the Application stated that Hydro's boiler experts have advised that the combination
25 of the proposed work and a new operating maintenance initiative to address economizer fouling
26 restrictions on Units 1 and 2 through a new chemical cleaning technique should address the factors
27 currently limiting capability of the units; and
28

29 **WHEREAS** the Application was copied to: Newfoundland Power Inc. ("Newfoundland Power");
30 the Consumer Advocate, Dennis Browne, Q.C.; Corner Brook Pulp and Paper Limited, NARL
31 Refining Limited Partnership and Vale Newfoundland & Labrador Limited (the "Industrial
32 Customer Group"); Teck Resources Limited and Praxair Canada Inc.; and
33

34 **WHEREAS** requests for information ("RFIs") from the Board and Newfoundland Power were
35 answered by Hydro on June 20, 2018; and
36

37 **WHEREAS** Newfoundland Power supported the Application and submitted that it appears that
38 the proposed work is required to restore the capacity of the units for the upcoming winter and the
39 reinstatement of the chemical additive system will reduce the abnormal fouling of the units; and
40

41 **WHEREAS** Newfoundland Power also submitted that Hydro's decision to discontinue the use of
42 the chemical additive system in 2014 appears to have been a significant contributor to the fouling
43 issues and it is not clear from the record whether this decision was supported by proper consultation
44 with boiler experts and, therefore, Hydro should be required to provide reasonable justification of
45 its 2014 decision to decommission the fuel additive system before the proposed expenditures are
46 approved for recovery from customers; and

1 **WHEREAS** Hydro submitted that the Application should be approved on the basis that Hydro
2 used the best analysis available in 2014 when it determined that the decommissioning of the fuel
3 additive was prudent and the responses to the RFIs demonstrate that the fuel additive had been
4 used to address an issue which was eliminated with the change in the fuel specification in 2014,
5 and that the issue currently being experienced is in a different part of the furnace and involves
6 different chemical components than the problem experienced in the past; and
7

8 **WHEREAS** no other comments were received by the Board; and
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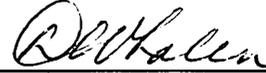
10 **WHEREAS** the Board is satisfied that the proposed 2018 supplemental capital expenditure for
11 approval to restore the design performance of the air heaters to increase the generating capacity of
12 Units 1, 2 and 3 at the Holyrood Thermal Generating Station, including the replacement of the hot
13 end air heater baskets in the boilers on each of Units 1, 2 and 3 and replacement of worn air heater
14 sector plate liners and seals on Unit 3, is necessary to ensure the continued provision of safe and
15 reliable electricity supply to Hydro's customers; and
16

17 **WHEREAS** the Board is satisfied that, before the proposed expenditures are considered for
18 recovery, Hydro should provide further information in relation to its 2014 decision to
19 decommission the fuel additive system, including whether the decision was made after appropriate
20 consultation with boiler experts.
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22

23 **IT IS THEREFORE ORDERED THAT:**
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- 25 1. The proposed capital expenditure in the amount of \$2,560,500 to restore the design
26 performance of the air heaters to increase the generating capacity of Units 1, 2 and 3 at the
27 Holyrood Thermal Generating Station is approved.
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- 29 2. Hydro shall file further information in relation to the 2014 decision to decommission the fuel
30 additive system prior to seeking recovery of this capital expenditure from customers.
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- 32 3. Hydro shall pay all expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador, this 11th day of July, 2018.



Darlene Whalen, P. Eng., FEC
Chair & CEO



Dwannda Newman. LL.B.
Vice Chair



Sara Kean
Assistant Board Secretary