

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

**AN ORDER OF THE BOARD**

**NO. P.U. 28(2019)**

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 for refurbishment of the Hardwoods gas turbine alternator  
10 exciter end bearing and the purchase of an exciter bearing  
11 liner and thrust pads pursuant to section 41 of the *Act*.  
12  
13

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

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

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

24 without prior approval of the Board; and  
25

26 **WHEREAS** in Order No. P.U. 46(2018) the Board approved Hydro’s 2019 Capital Budget in the  
27 amount of \$116,140,700; and  
28

29 **WHEREAS** the Board approved supplementary 2019 capital expenditures

- 30 (i) in Order No. P.U. 7(2019) in the amount of \$600,000 to be added to the  
31 Allowance for Unforeseen Items; and
- 32 (ii) in Order No. P.U. 22(2019) in the amount of \$259,500 to complete the  
33 Hinds Lake Unit major overhaul and \$414,300 for Level II Condition  
34 Assessments for Bay E’spoir Penstock 4, Granite Canal Penstock and Hinds  
35 Lake Penstock; and

1 **WHEREAS** on July 24, 2019 Hydro filed an application with the Board requesting approval of a  
2 capital expenditure of \$225,500 to complete a refurbishment of the Hardwoods gas turbine  
3 alternator exciter end bearing and the purchase of an exciter bearing liner and thrust pads (the  
4 “Application”); and

5  
6 **WHEREAS** the Application stated that on February 21, 2019 the Hardwoods Gas Turbine tripped  
7 during startup of one of its gas generator/power turbine units (End B) while operating in generate  
8 mode with the other gas generator/power turbine unit (End A) and several attempts to place End  
9 B online were unsuccessful with the unit tripping each time as a result of high exciter bearing  
10 vibration; and

11  
12 **WHEREAS** the Application stated that during the inspection to determine the cause of the  
13 vibration issue it was discovered that the exciter thrust bearing assembly had moved out of  
14 position, resulting in insufficient clearance to allow its proper function when placing End B online;  
15 and

16  
17 **WHEREAS** the Application stated that the alternator exciter end bearing and the exciter bearing  
18 liner were replaced with the available capital spares and Hardwoods Gas Turbine was returned to  
19 service at full capacity on May 28, 2019; and

20  
21 **WHEREAS** the Application stated the available spare bearing components were utilized to  
22 replace the existing alternator exciter end bearing and the exciter bearing liner to return the  
23 Hardwoods Gas Turbine to its full capacity and must now be replaced to maintain the  
24 recommended level of critical spires to ensure reliable future operation of the Hardwoods Gas  
25 Turbine; and

26  
27 **WHEREAS** the Application explained that during the inspection Hydro realized the criticality of  
28 the exciter bearing thrust pads as a critical spare component of the exciter bearing, and that if the  
29 thrust pads had been damaged beyond operational suitability the unit could not have been returned  
30 to service and would have had to remain unavailable for approximately 16 to 20 weeks; and

31  
32 **WHEREAS** the Application stated that the current thrust pads are showing signs of significant  
33 wear and may not be able to be returned to service if further issues arise and also that spare thrust  
34 pads are an Original Equipment Manufacturer recommended spare for this alternator/exciter and  
35 need to be procured; and

36  
37 **WHEREAS** the Application was copied to: Newfoundland Power Inc. (“Newfoundland Power”);  
38 the Consumer Advocate, Dennis Browne, Q.C.; Corner Brook Pulp and Paper Limited; NARL  
39 Refining Limited Partnership; Vale Newfoundland & Labrador Limited; Teck Resources Limited;  
40 Praxair Canada Inc.; Iron Ore Company of Canada and the Labrador Interconnected Group; and

41  
42 **WHEREAS** requests for information from the Board were answered by Hydro on August 12,  
43 2019; and

44  
45 **WHEREAS** on August 14, 2019 Newfoundland Power advised it had no comments on the  
46 Application; and

1 **WHEREAS** on August 16, 2019 Hydro filed a reply requesting the Board approve the Application  
2 as submitted; and

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4 **WHEREAS** no other comments were received by the Board; and

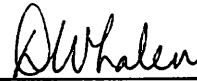
5  
6 **WHEREAS** the Board is satisfied that the proposed 2019 supplemental capital expenditure for  
7 refurbishment of the Hardwoods gas turbine alternator exciter end bearing and the purchase of an  
8 exciter bearing liner and thrust pads is necessary to ensure the continued provision of a safe and  
9 reliable electricity supply to Hydro’s customers.

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11  
12 **IT IS THEREFORE ORDERED THAT:**

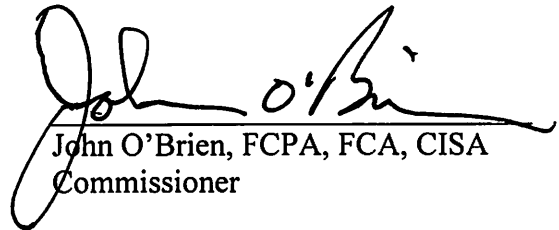
13  
14 1. The proposed capital expenditure in the amount of \$225,500 for refurbishment of the  
15 Hardwoods gas turbine alternator exciter end bearing and the purchase of an exciter bearing  
16 liner and thrust pads is approved.

17  
18 2. Hydro shall pay all expenses of the Board arising from this Application.

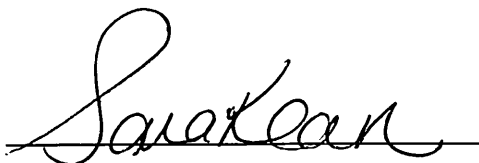
**DATED** at St. John’s, Newfoundland and Labrador, this 26<sup>th</sup> day of August, 2019.



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



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John O'Brien, FCPA, FCA, CISA  
Commissioner



Sara Kean  
Assistant Board Secretary