

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

AN ORDER OF THE BOARD

NO. P. U. 31(2007)

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

6
7 **AND**
8

9 **IN THE MATTER OF** the application by
10 Newfoundland and Labrador Hydro (“Hydro”)
11 for approval of the Board to proceed with the
12 construction of a wind-hydrogen diesel generation
13 project at Ramea, pursuant to Section 41(3)
14 of the *Act*.

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16
17 **WHEREAS** Hydro is a corporation continued and existing under the *Hydro Corporation Act*, is
18 a public utility within the meaning of the *Act*, and is subject to the provisions of the *EPCA*; and
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20 **WHEREAS** Section 41(3) of the *Act* requires that a public utility shall not proceed with the
21 construction, purchase or lease of improvements or additions to its property where: (a) the cost of
22 construction or purchase is in excess of \$50,000; or (b) the cost of the lease is in excess of \$5,000 in
23 a year of the lease without the prior approval of the Board of Commissioners of Public Utilities (the
24 “Board”); and
25

26 **WHEREAS** Hydro owns and operates an isolated diesel electrical system at Ramea and purchases
27 energy from a 390 kW non-utility owned wind farm at Ramea and uses this energy to displace diesel
28 fuel generation; and
29

30 **WHEREAS** Hydro filed an Ex Parte application for approval to proceed with the construction and
31 installation of a wind farm, a hydrogen electrolyzer, a hydrogen storage system, five hydrogen-
32 generators, an Energy Management System, and associated equipment (together referred to as the
33 Wind-Hydrogen-Diesel System) at its Ramea isolated diesel system;
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35 **WHEREAS** the total cost of the proposed Wind-Hydrogen-Diesel System is \$8,794,000, of which
36 \$1,272,000 is intended to be spent in 2007 and \$7,522,000 is intended to be spent in 2008; and

1 **WHEREAS** the proposed Wind-Hydrogen-Diesel System is a research and development project
2 which will be constructed using non-regulated funds mainly from third parties; and
3

4 **WHEREAS** Hydro has confirmed that consumers will bear no costs associated with the proposed
5 Wind-Hydrogen-Diesel System in any circumstance, either in implementation, operation or
6 abandonment as these costs will not be included in regulated rate base or regulated operating
7 expenses without a further order of the Board; and
8

9 **WHEREAS** Hydro has confirmed that the costs associated with the Wind-Hydrogen-Diesel System
10 will not be included in Hydro's regulated rate base unless the system is proven used and useful and
11 Hydro makes application to the Board to determine the value, if any, which is to be added to rate
12 base; and
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14 **WHEREAS** Hydro has confirmed that it will separately track all costs in accordance with Hydro's
15 policies and procedures concerning non-regulated activities; and
16

17 **WHEREAS** the Board's financial consultant, Grant Thornton LLP, prepared a report, dated
18 November 22, 2007, in relation to this application concluding that Hydro's procedures for the
19 tracking and treatment of non-regulated debt appear adequate and recommending that Hydro apply
20 similar methodology to track cash flows related to the Wind-Hydrogen-Diesel System; and
21

22 **WHEREAS** Grant Thornton further recommended that the Board direct Hydro to specifically add
23 the Wind-Hydrogen-Diesel System to the list of non-regulated activities noted in the 'Non-
24 Regulated Activities' 2006 document; and
25

26 **WHEREAS** Hydro has confirmed that proceeding with this project is not expected to negatively
27 impact Hydro's ability to earn a just and reasonable return and maintain a sound credit rating in the
28 financial markets of the world; and
29

30 **WHEREAS** Grant Thornton noted in its report that the total investment of \$8.8 million represents
31 0.6% of Hydro's average rate base as at December 31, 2006 (\$1,472.2 million) and further that the
32 pro-forma interest expense associated with this investment is \$0.767 million which is equal to 0.69%
33 of 2006 regulated interest expense (\$111.6 million); and
34

35 **WHEREAS** Grant Thornton recommended that the project be monitored on an on-going basis
36 through additional reporting as part of Hydro's quarterly reporting to the Board; and
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38 **WHEREAS** Hydro has stated that more information will be available after the three-year
39 operational testing phase which is expected to begin in December 2008 with the first production of
40 energy; and

1 **WHEREAS** Hydro has stated that, after the operational testing phase, Hydro will have adequate
 2 information to determine whether the project provides safe and reliable power at least cost, or
 3 provides other benefit to ratepayers; and
 4

5 **WHEREAS** Hydro has stated that if a determination is made that the Wind-Hydrogen-Diesel
 6 System may provide benefit to ratepayers an application will be made to add the costs of the system
 7 to rate base, likely at net book value (undepreciated cost net of contributed funding), or alternatively,
 8 if a determination is made that this system should be taken out of service an application will be made
 9 to the Board for approval to abandon; and
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11 **WHEREAS** Hydro has provided confirmation that both the Community of Ramea and the existing
 12 provider of wind energy in Ramea support the proposed Wind-Hydrogen-Diesel System; and
 13

14 **WHEREAS** Hydro has advised that it is in the process of obtaining the necessary environmental
 15 approvals; that new switchgear in the existing diesel plant will provide the capability to isolate any
 16 reliability issues in the new system from the existing system; and that there will be a comprehensive
 17 safety plan covering the various phases of the project; and
 18

19 **WHEREAS** the Board will approve Hydro's proposal to proceed with the construction of the Wind-
 20 Hydrogen-Diesel System in light of the information provided and particularly given that the costs of
 21 this system which are deemed to be non-regulated costs, will be tracked separately from regulated
 22 operations and will not be borne by ratepayers unless a further application to the Board is made.
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24 **IT IS THEREFORE ORDERED THAT:**
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- 27 1. Hydro may proceed with the construction and installation of the Wind-Hydrogen-Diesel
 28 System as proposed, in the amount of \$8,794,000, with spending of approximately
 29 \$1,272,000 in 2007 and \$7,522,000 in 2008.
- 30 2. Unless otherwise ordered by the Board, ratepayers will not bear any of the costs relating to
 31 the Wind-Hydrogen-Diesel System.
- 32 3. Hydro shall treat all costs related to the Wind-Hydrogen-Diesel System as non-regulated in
 33 accordance with the methodology, policies and procedures in place for the treatment of non-
 34 regulated activities.
- 35 4. Unless otherwise directed by the Board, Hydro shall provide a quarterly update on the status
 36 of the Wind-Hydrogen-Diesel System in each quarterly report to the Board, setting out
 37 details as to implementation and operation of this system, capital and operating costs,
 38 variances from budget, reliability and safety issues.
- 39 5. Hydro shall file a report to the Board within ninety days of the conclusion of the operational
 40 testing phase addressing in detail Hydro's conclusions and plans in relation to the Wind-
 41 Hydrogen-Diesel System.
- 42 6. Hydro shall pay all expenses of the Board arising from this application.

DATED at St. John's, Newfoundland and Labrador, this 30th day of November 2007.

Robert Noseworthy
Chair & Chief Executive Officer

Darlene Whalen, P.Eng.
Vice-Chair

Cheryl Blundon
Board Secretary