

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

AN ORDER OF THE BOARD

NO. P.U. 23(2008)

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;

5
6 **AND**

7
8 **IN THE MATTER OF** an Application by
9 Newfoundland and Labrador Hydro (“Hydro”)
10 pursuant to Subsection 41(3) of the *Act*, for the
11 approval of capital projects affecting the Holyrood
12 Thermal Generating Station;

13
14 **AND**

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16 **IN THE MATTER OF** Hydro’s proposal to
17 undertake a Condition Assessment and Life
18 Extension Study for the Holyrood Thermal
19 Generating Station.

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22 **Application**

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24 On June 10, 2008 Hydro filed an application with the Board requesting approval of three capital
25 projects affecting the Holyrood Thermal Generating Station (HTGS) to be commenced in 2008.
26 The three projects proposed in the Application were:

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 - Unit 1 Superheater Replacement (\$4,446,200);
 - 29 • Replacement of the Public Address (Paging) System (\$1,278,500); and
 - 30 • Condition Assessment and Life Extension Study (\$3,971,600).

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32 Copies of the Application were sent to the Consumer Advocate (Mr. Thomas Johnson),
33 Newfoundland Power Inc., and Hydro’s Industrial Customers. No interventions or submissions
34 were received on the projects related to the Unit 1 Superheater Replacement or the Public
35 Address (Paging) System. The Industrial Customers did file Information Requests and
36 Submissions on the Condition Assessment and Life Extension Study.

1 In Order No. P.U. 17(2008) issued June 27, 2008 the Board approved the expenditures in relation
2 to two of the three proposed projects - the Unit 1 Superheater Replacement and the Public
3 Address (Paging) System. With this Order and previous Orders P.U. 30(2007) and P. U. 9(2008)
4 the approved 2008 Capital Budget for Hydro totaled \$48,622,800.

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6 When Order No. P.U. 17(2008) was issued several information requests remained outstanding in
7 relation to the Condition Assessment and Life Extension Study. Further information requests
8 were subsequently made by the Board as well as the Industrial Customers. A total of 42 requests
9 for information were issued to Hydro in relation to the Condition Assessment and Life Extension
10 Study. These information requests were responded to in full by Hydro over the period July 21 to
11 August 14, 2008. On August 20, 2008 the Industrial Customers filed a written submission in
12 respect of the proposed Condition Assessment. Hydro filed a written reply submission on
13 August 26, 2008.

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15 The Condition Assessment proposed in this Application is similar to a project proposed in 2006
16 in Hydro's 2007 Capital Budget application. In that application Hydro sought approval to spend
17 \$3.3 million to conduct a life assessment of the Holyrood site as well as two feasibility studies.
18 The Board did not approve the proposed expenditure explaining that there was a lack of detail
19 and information provided in relation to the proposed project. Specifically, the Board said in
20 Order No. P.U. 35(2006), page 10:

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22 *"The Board acknowledges the importance of proper and timely system planning. As such it may be*
23 *prudent to conduct a review of the Holyrood plant, an aging plant that serves as an integral part of*
24 *the power supply of the Province. However, the nature and scope and timing of the review must be*
25 *justified as being reasonable and prudent in the circumstances."*

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27 The Condition Assessment and Life Extension Study proposed in this Application is different in
28 scope than the project proposed in the 2007 Capital Budget application, and involves an
29 estimated expenditure of \$3.9 million for the first phase of a two phase assessment.

30 31 **Decision**

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33 Section 41(3) of the *Act* requires that a public utility shall not proceed with the construction,
34 purchase or lease of improvements or additions to its property where the cost of the construction
35 or purchase is in excess of \$50,000 or the cost of the lease is in excess of \$5,000 in a year of the
36 lease without the prior approval of the Board. In seeking this approval the utility must justify the
37 undertaking of the project and its costs.

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39 In written submission the Industrial Customers note Hydro's failure to provide a detailed scope
40 of work for the proposed project and suggest without this it is difficult to understand the costs in
41 relation to the proposed assessment. The Industrial Customers also raise concerns in relation to
42 the apparent significantly increased costs of the proposed Condition Assessment since the 2007
43 Capital Budget application. The Industrial Customers note that all the units are well below the
44 200,000-hour threshold for condition assessment and suggest that there is no evidence of a trend
45 of decreased reliability. The Industrial Customers submit that there is no urgency requiring the
46 assessment to be done without a detailed scope and in advance of the determinations to be made

1 in relation to the development of the Lower Churchill Project and a possible interconnect. In
2 relation to the timing of the expenditures the Industrial Customers state, at page 4:

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4 *“In the submission of the Industrial Customers, the Proposed Condition Assessment and Life*
5 *Extension Study has not been justified by Hydro as a matter of urgency or of short-term necessity,*
6 *but rather for the longer term maintenance of the Holyrood facility in its present configuration.*
7 *This is a “business as usual” approach by Hydro to the future of the Holyrood facility which*
8 *ignores the clear and decisively expressed intent of the Energy Plan that, from 2009 forward,*
9 *decisions will be made about the Holyrood facility which will either render obsolete, or at a*
10 *minimum significantly modify, the facility’s current configuration.”*

11
12 Hydro submits that the Condition Assessment is necessary and timely to ensure reliable least cost
13 energy from the HTGS. In its written submission (pg. 5) Hydro states:

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15 *“The Condition Assessment proposal represents a measured and considered means for Hydro to*
16 *obtain essential information that it will need to identify, plan and execute, in an orderly and cost-*
17 *effective manner, the refurbishments that will allow the HTGS to provide reliable generation to at*
18 *least 2016, and to provide the essential synchronous condenser function, which will be needed*
19 *with or without a Labrador power in-feed. In making this proposal, Hydro had considered the*
20 *long term planning implications of the HTGS; the likelihood that the HTGS will operate at an*
21 *increasing capacity factor over the next eight years; and the increasing reliability concerns that*
22 *have been raised in recent years by the magnitude and frequency of major equipment failures.”*

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24 Hydro further explains that, based on recent unexpected failures, it has changed its view since
25 the 1999 report which stated that the HTGS could be expected to be operated in a similar manner
26 for at least another 20 years. Hydro says that the 1999 report was based on a high level study
27 with no sampling or disassembly. Hydro states that it is common practice that condition
28 assessments are considered when plants reach the approximate age of 30 years with operating
29 hours of 150,000 to 200,000. According to the response to Information Request PUB-NLH-13,
30 as of June 30, 2008 the running hours were: Unit 1 - 160,600; Unit 2 - 151,600; and Unit 3 -
31 122,000 (145,000 with synchronous condensing). Hydro cites several unique features of the
32 HTGS which make it appropriate to conduct an early review, including the type of equipment
33 failures in recent years and the life cycle of the capital project process.

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35 The Board acknowledges the importance of the HTGS to the Interconnected system and accepts
36 that the HTGS is approaching the end of its useful life. However, the Board agrees with the
37 Industrial Customers that the evidence does not demonstrate a clear pattern of recent
38 deterioration in the condition of the HTGS. The information provided by Hydro, including
39 statistics in relation to DAFOR, SAIDI, SAIFI, SARI, outages and maintenance expenditures, do
40 not demonstrate concerning trends requiring immediate remedial action. While operational
41 problems may not yet have developed, the Board believes that the best approach is a proactive
42 one which assesses the condition of the plant with a view to developing a rational and strategic
43 approach to ensure that appropriate action can be taken. The Board acknowledges the position of
44 the Industrial Customers in relation to the timing of the Condition Assessment and agrees that it
45 would be preferable to know with certainty how the plant will be operating in the future. The
46 Board does believe however that it is preferable to begin the assessment process.

1 In the context of the uncertain circumstances as to how the plant will be operated, and in the
2 absence of circumstances suggesting immediate action is necessary, the Board would like to see
3 a detailed plan for the proposed Condition Assessment demonstrating a well planned, cost
4 effective approach. The Board would expect to see a detailed scope and costing document which
5 sets out a critical path and associated project expenditures. Unfortunately at this stage Hydro is
6 only able to provide expenditure estimates based on informal discussions with another utility
7 which had completed a similar study in recent years. In response to PUB-NLH-33 Hydro
8 explains that a detailed scope would be prepared after requests for proposals are received and
9 evaluated. Completion of the scope is expected to take about five months and cost about
10 \$420,000.

11 In the circumstances the Board is satisfied that Hydro should commence a condition assessment
12 of the HTGS at this time. The HTGS is an integral part of the Province's electrical system and
13 the Board accepts Hydro's position that, in the circumstances, it is appropriate to conduct an
14 assessment of this aging plant. However, the Board is not satisfied with the details provided by
15 Hydro in relation to the approach to be taken and the associated costs. Therefore the Board will
16 approve an expenditure of \$420,000 for the development of a request for proposals, evaluation of
17 the proposals and the preparation of a detailed scope for the project. Once this has been
18 completed Hydro will be in a position to provide a detailed scope, setting out timing, alternative
19 approaches to address changing circumstances, and costing information. This information would
20 then be available to support a further application to proceed with the Condition Assessment and
21 Life Extension Study.

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25 **IT IS THEREFORE ORDERED THAT:**

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1. An additional 2008 expenditure of \$420,000 to begin the proposed Condition Assessment and Life Extension Study for the Holyrood Thermal Generating Station, which involves the issuance of a request for proposals, evaluation of the proposals and the preparation of a detailed scope of work, is approved.
2. Newfoundland and Labrador Hydro shall pay all the expenses of the Board arising from this Application.

DATED at St. John's, Newfoundland and Labrador this 25th day of September 2008.

Andrew Wells
Chair & Chief Executive Officer

Darlene Whalen, P.Eng.
Vice-Chairperson

Dwanda Newman, LL.B.
Commissioner

Cheryl Blundon
Board Secretary