



NEWFOUNDLAND AND LABRADOR
BOARD OF COMMISSIONERS OF PUBLIC UTILITIES
120 Torbay Road, P.O. Box 21040, St. John's, Newfoundland and Labrador, Canada, A1A 5B2

E-mail: gyoung@nlh.nl.ca

2015-06-01

Mr. Geoff Young
Newfoundland and Labrador Hydro
P. O. Box 12400
Hydro Place, Columbus Drive
St. John's, NL A1B 4K7


Dear Sir:

Re: Newfoundland and Labrador Hydro – Amended General Rate Application – Prudence Review – Requests for Information PR-PUB-NLH-172 to PR-PUB-NLH-184

Enclosed are Information Requests PR-PUB-NLH-172 to PR-PUB-NLH-184 regarding the above-noted application. Responses to these Requests for Information (RFIs) must be filed at your earliest convenience but not later than Wednesday, June 10, 2015.

If you have any questions, please do not hesitate to contact the Board's Legal Counsel, Ms. Jacqui Glynn, by email, jglynn@pub.nl.ca or by telephone 709-726-6781.

Yours truly,


Cheryl Blundon
Board Secretary

/cpj
Encl.

cc. **Newfoundland & Labrador Hydro**
Mr. Fred Cass, E-mail: fcass@airdberlis.com
NLH Regulatory, E-mail: NLHRegulatory@nlh.nl.ca
Consumer Advocate
Mr. Thomas Johnson, QC, E-mail: tjohnson@odeaearle.ca
Ms. Colleen Lacey, E-mail: clacey@odeaearle.ca
Mr. Raman Balakrishnan, E-mail: rbalakrishnan@odeaearl.ca
Yale Newfoundland and Labrador Limited
Mr. Thomas O'Reilly, QC, E-mail: toreilly@coxandpalmer.com
Mr. Denis Fleming, E-mail: dfleming@coxandpalmer.com
Innu Nation
Ms. Nancy Kleer, E-mail: nkleer@oktlaw.com
Mr. Sawung Luk, E-mail: sluk@oktlaw.com
Nunatsiavut Government
Ms. Genevieve Dawson, E-mail: gdawson@bensonbuffett.com
Mr. Tom Sheldon, E-mail: tom_sheldon@nunatsiavut.com
Ms. Christina Goldhar, E-mail: christina_goldhar@nunatsiavut.com
Mr. Christopher Henderson, E-mail: chenderson@lumosenenergy.com
Grand Riverkeeper® Labrador Inc.
Mr. Charles O'Brien, E-mail: bluegreenlaw@gmail.com
Mr. Philip Raphals, E-mail: Philip@centrehelios.org

Newfoundland Power Inc.
Mr. Gerard Hayes, E-mail: ghayes@newfoundlandpower.com
Mr. Liam O'Brien, E-mail: lobrien@curtisdawe.nf.ca
Industrial Customer Group
Mr. Paul Coxworthy, E-mail: pcoxworthy@stewartmckelvey.com
Mr. Dean Porter, E-mail: dporter@pa-law.ca
Towns of Labrador City, Wabush, Happy Valley-Goose Bay and North West River
Mr. Dennis Browne, QC, Email: dbrowne@bfina-law.com
Mr. Edward Hearn, QC, E-mail: miller&hearn@irstv.net
Ms. Melanie Dawe, E-mail: mdawe@bfina-law.com
Yvonne Jones MP, Labrador
Ms. Yvonne Jones, MP Labrador,
E-mail: Yvonne.Jones.A1@parl.gc.ca; Yvonne.Jones.C1@parl.gc.ca
Mr. Danny Dumaresque
Mr. Danny Dumaresque, E-mail: danny.liberal@gmail.com
Mr. William Kennedy, E-mail: wkennedy@kennedylawoffice.ca
Sierra Club Canada
Mr. Fred Winsor, E-mail: winsorf@nl.rogers.com

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** a general rate application
8 filed by Newfoundland and Labrador Hydro on
9 July 30, 2013; and
10

11 **IN THE MATTER OF** an amended general rate
12 application filed by Newfoundland and Labrador
13 Hydro on November 10, 2014; and
14

15 **IN THE MATTER OF** a prudence review relating to
16 certain actions and costs of Newfoundland and Labrador
17 Hydro.

**PUBLIC UTILITIES BOARD
REQUESTS FOR INFORMATION**

PR-PUB-NLH-172 to PR-PUB-NLH-184

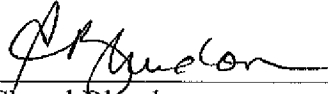
Issued: June 1, 2015

- 1 **PR-PUB-NLH-172** In a meeting with Hydro management on May 29, 2015, Hydro stated that
2 a technical analysis was completed that concluded that the Newfoundland
3 Power mobile turbine accompanied by a Newfoundland Power mobile
4 diesel generator was a viable option for black start at the Holyrood Plant.
5 Please provide the analysis completed by Hydro at that time as well as any
6 other information that led Hydro to this conclusion.
7
- 8 **PR-PUB-NLH-173** Further to PR-PUB-NLH-172, despite the conclusion of the technical
9 analysis referred to, the Newfoundland Power option was found to be
10 inadequate on May 10, 2013. Please describe what actions Hydro took
11 between the time it learned the Newfoundland Power option was
12 inadequate and November 29, 2013 when the Board approved new action
13 to be taken to provide black start capability.
14
- 15 **PR-PUB-NLH-174** Further to the response to PR-PUB-NLH-104, please provide the number
16 of times attempts were made to start any of the 8 X 2 MW diesel units and
17 the number of times such attempts failed.
18
- 19 **PR-PUB-NLH-175** PR-PUB-NLH-108 requested the “estimated reliability, in terms of failure
20 to start or other appropriate measure, of each of the eight diesel
21 generators”. Hydro responded in terms of an “Operational Availability”
22 equal to .9974 and cited an IEEE paper as the data source. In Liberty’s
23 experience, the critical measure for an emergency diesel is its ability to
24 start when called upon. Please explain why Hydro believes “operational
25 availability” is a more meaningful measure than ability to start. Also
26 please provide any information Hydro has on the ability to start of the 8 X
27 2 MW diesel units.
28
- 29 **PR-PUB-NLH-176** Further to the response to PR-PUB-NLH-108, please provide Hydro’s best
30 estimate for unit reliability in terms of the probability that a machine will
31 function as designed when called upon.
32
- 33 **PR-PUB-NLH-177** Please answer the question in PUB-NLH-109 (reliability of the black start
34 system as a whole) in terms of the probability that the system will function
35 as intended when called upon.
36
- 37 **PR-PUB-NLH-178** Hydro provided Liberty with a 2006 technical paper describing a lube oil
38 failure in 2001 at the San Onofre nuclear station. In a meeting with Hydro
39 management on May 29, 2015, Hydro suggested that this paper should be
40 considered in the prudence evaluation of Hydro’s 2013 Holyrood Unit 1
41 failure, but did not make clear how or why the paper was applicable or
42 how it should influence the investigation. Please provide a copy of this
43 paper. Also, please explain Hydro’s opinion on why this paper is relevant
44 to Liberty’s analysis.

- 1 **PR-PUB-NLH-179** In the San Onofre technical paper referred to in PR-PUB-NLH-178 it is
2 noted that the authors cited the surprisingly large number of lube oil
3 system failures in large turbine-generators. For example, they report that
4 five such failures were reported in fossil-fueled stations in the first half of
5 2001 alone. As this would lead plant owners to think their exposure to
6 lube oil failure was greater than previously thought, please advise if Hydro
7 took any action when it received this information.
8
- 9 **PR-PUB-NLH-180** In the San Onofre technical paper referred to in PR-PUB-NLH-178, the
10 authors note that (1) a loss of off-site power eliminated both AC lube oil
11 systems and (2) the DC system failed to operate. This is the same result
12 (but for different reasons) that Hydro experienced at Holyrood in 2013.
13 Has Hydro considered, before or after the 2013 failure, its vulnerability to
14 a simultaneous loss of AC power and failure of the DC lube oil system as
15 occurred at San Onofre in 2001 and at Holyrood in 2013? If yes, explain
16 the results of its considerations.
17
- 18 **PR-PUB-NLH-181** Hydro's response to PR-PUB-NLH-127 dismisses the erroneous resistor
19 setting as a "major contributor" to the event. As "the resistor setting is
20 meant to fine-tune the motor speed to deliver target lube oil pump
21 discharge", would not an operator, when making the setting, discover that
22 the required pump discharge could not be achieved? Please clarify
23 Hydro's response in this regard and why Hydro concludes this is not a
24 major contributor.
25
- 26 **PR-PUB-NLH-182** Hydro's response to PR-PUB-NLH-127 states that motor speed on DC
27 motors was not stipulated in the QA/QC process. In cases of motors being
28 maintained by vendors, were any speed tests specified to be performed,
29 whether by the vendor or Hydro, before such motors were released for
30 service? If yes describe the tests.
31
- 32 **PR-PUB-NLH-183** In a meeting with Hydro management on May 29, 2015, Liberty noted that
33 there was no evidence provided on the quality of Hydro QA/QC oversight
34 of vendor maintenance on the DC motors. Please provide documentation
35 on Hydro's oversight of such activities and explain why it believes this
36 oversight is appropriate.
37
- 38 **PR-PUB-NLH-184** Hydro's response to PR-PUB-NLH-126 appears to be based on the belief
39 that Liberty was seeking formally stated industry standards regarding
40 emergency diesel activation in degraded voltage circumstances. Such
41 formal standards are not required. Rather, Liberty is seeking the basis for
42 Hydro's contention, that Hydro's design in this regard is typical in the
43 industry. Please provide that basis and any supporting documentation.

DATED at St. John's, Newfoundland this 1st day of June 2015.

BOARD OF COMMISSIONERS OF PUBLIC UTILITIES

Per 
Cheryl Blundon
Board Secretary