

Island Interconnected System Supply Issues and Power Outages (Phase 2)

1 Q. InterGroup Consultants Ltd. Report, page 4, lines 29-38 and page 5, line 5. In
2 making recommendations that Hydro maintain thermal assets at Holyrood,
3 Stephenville and Hardwoods, Mr. Osler states that there are no "immediate
4 alternatives available". What time period does Mr. Osler consider as
5 "immediate"?

6 A. "Immediate" refers to alternatives to Holyrood, Stephenville and Hardwoods that
7 are known to be available today to meet current and projected capacity
8 requirements to serve Hydro's Island customers, to at least Muskrat Falls and LIL
9 in-service. As discussed below, there may be other capacity alternatives that can
10 be made available, but in the absence of Hydro completing a review of its supply
11 needs, there is insufficient evidence regarding the need for, and if needed
12 reasonable timelines to secure availability of, these alternatives.

13 The following is specifically noted regarding key issues to consider for each of
14 the above thermal assets:

- 15 • Alternatives to address Holyrood remaining in service involve a time period
16 that extends from today until at least winter of 2020/21;
17
- 18 • Alternatives to address Stephenville and Hardwoods CTs remaining in service
19 involve a time period extending from today until a new alternative is available.
20 A new alternative could be available in either Q3 2017 (when the Maritime
21 Link is in service), or when new capacity is available (assuming at least a two-
22 year period required to construct); or by 2022 when Muskrat Falls and LIL are
23 in service.

24 Further context is provided below.

25 - The evidence shows that there is no economically feasible alternative to
26 Holyrood TGS at least until Muskrat Falls and Labrador Island Link are in
27 service and proven to be dependable within their early years of operation,
28 which may be after the winter of 2020/21.

29 - The term "immediate alternative" for the Stephenville and Hardwoods CTs
30 would depend on various factors including, but not limited to, the following:

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- 1 ○ Hydro has noted that the retirement of the Hardwoods and
2 Stephenville gas turbines are not expected until 2025 and 2028¹
3 respectively. Hydro has also noted that these CTs are “crucial sources
4 of power and energy during emergencies and system peaks and
5 provide voltage support, especially when operating as synchronous
6 condensers.”² However, their record of availability during 2013-2014
7 outages raises questions about their dependability. Therefore, it was
8 recommended that Hydro conduct a review of Stephenville and
9 Hardwoods units as part of review of supply needs and make
10 recommendations to the Board regarding their future status. The time
11 required to complete this review and report to the Board is not known.
- 12 ○ Alternatives to Stephenville and Hardwoods CTs may be secured
13 through capacity imports from Nova Scotia Power through the Maritime
14 Link (ML), which is expected to be in service in Q3 of 2017³. However,
15 as discussed in Section 6.2 of the InterGroup Consultants Report, this
16 would be subject to capacity availability and commercial arrangements
17 between utilities. Hydro may also be required to maintain one or both
18 of the CTs parallel to the capacity import option assuming ML in-
19 service and Hydro can arrange for availability of capacity to the IIS
20 over the ML by that time.
- 21 ○ Any new capacity construction would not be immediately available.
22 Both Hydro and Liberty recognize that construction of new generation
23 may take up to two years⁴. If the review of supply needs by Hydro
24 shows there is a need for new capacity construction then Hydro should
25 maintain existing CTs until such new capacity is available. This is at
26 least two years from now.
- 27 ○ In case of no capacity from Nova Scotia and no new capacity, then
28 these CTs may be required to be maintained until Muskrat Falls comes
29 into service, which is winter of 2020/21 based on current available
30 information.

¹ Hydro's 2017 Capital Budget application, page 8.

² Hydro's 2015 Capital Budget application. See page 7 of the 2015 Capital Projects Overview and page 5 of the Capital Plan section of the Application. Source: <http://www.pub.nf.ca/applications/nlh2015capital/INDEX.HTM>.

³ ESRA IC-NLH-025.

⁴ Liberty's response to IC-PUB-008 notes that a cycle of 2-3 years would be realistic for construction of new combustion turbine. Hydro in ESRA notes that the construction schedule for new combustion turbine would not mitigate risks for 2016/17 winter.