

1 Q. **Newfoundland and Labrador Hydro – Near-Term Reliability Report, May 15, 2020**

2 ***Maritime Link Imports***

3 Please outline the efforts (and results) Hydro has undertaken or that have been undertaken for
4 Hydro to secure a firm power purchase agreement for any portion of the November-April 2020-
5 2021 period over the Maritime Link.

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8 A. Newfoundland and Labrador Hydro (“Hydro”) has undertaken efforts to understand the ability
9 of the markets and neighbouring jurisdictions to supply energy and/or capacity in the event that
10 the Island Interconnected System required incremental support during winter 2020–2021;
11 however, Hydro has not undertaken efforts to date to secure a firm power purchase agreement
12 for any portion of the November 2020 to April 2021 period. Hydro notes that analysis completed
13 in support of its most recent Near-Term Reliability Report, filed May 15, 2020, observed no
14 annual violations of its established base planning criteria for the Island Interconnected System
15 using its base assumption of 15% derated adjusted forced outage rate for the Holyrood Thermal
16 Generating Station (“Holyrood TGS”).

17 From a hydrology standpoint, Hydro’s current energy in storage as of July 31, 2020 was 1,780
18 GWh; 301 GWh above the minimum storage limit of 1,479 GWh. Further, Hydro’s current energy
19 in storage is higher than it was at this time in 2018 and 2019. Hydro’s minimum storage limit has
20 been established to help ensure sufficient storage to reliably serve customers should the LIL
21 continue to be delayed beyond the fall of 2020. As such, the availability of energy in reservoir
22 systems does not currently pose a risk to near-term resource adequacy.

23 From an asset perspective, the operations and maintenance activities are currently tracking 85%
24 completion against planned activities and are currently tracking at 89% completion of winter
25 readiness activities against planned activities with all core work on track for completion in
26 advance of the winter operating season.

1 With respect to the health of the Bay d’Espoir penstocks specifically, a level II condition
2 assessment was completed on Penstock 1, with no concerns identified in areas where past
3 failures have occurred or in new areas inspected as part of this assessment. An assessment of
4 Penstock 2 is currently planned for October 2020 and an assessment of Penstock 3 is planned
5 for completion in 2021. Additionally, to mitigate potential impacts should another leak in
6 Penstock 1 occur, proactive measures have been taken to reduce downtime. These actions
7 include having an inventory of long lead time materials available (e.g., rolled steel plate),
8 ensuring availability of welding resources, and engagement of an additional engineering
9 consultant to ensure development of an appropriate long-term plan. Modifications to the
10 Automatic Generator Control application in Hydro’s Energy Management System designed to
11 limit the amount of rough zone operation have also been implemented for Units 1 to 6 at Bay
12 d’Espoir. A more prescriptive operating regime has been implemented for Units 1 and 2 at Bay
13 d’Espoir, given the condition of Penstock 1. In this operating regime, once dispatched, Units 1
14 and 2 are limited to a minimum unit loading of 50 MW and are not cycled or shut down as part
15 of normal system operations.

16 With respect to Holyrood TGS, specifically, Hydro is in the process of completing annual
17 maintenance and capital projects required to ensure continued reliable service from the
18 Holyrood TGS. All capital projects remain on track for completion in advance of winter 2020–
19 2021, with Hydro providing monthly updates to the Board of Commissioners of Public Utilities
20 with respect to the four supplemental capital projects currently underway. Hydro continues to
21 take the necessary preventive and corrective actions to ensure the reliability of the Holyrood
22 TGS for the upcoming winter season. Finally, Hydro notes that the analysis which supported its
23 Near-Term Reliability report filed May 15, 2020, used a base assumption of a 15% derated
24 adjusted forced outage rate (“DAFOR”) for the Holyrood TGS. While the DAFOR provides a
25 reasonable planning assumption for the basis of Hydro’s analysis, Hydro notes that the actual
26 DAFOR for the Holyrood TGS was 4% for the period from April 1, 2019 through March 31, 2020
27 and is 2.3% for 2020 year-to-date; both measures show materially improved performance as
28 compared to the planning assumption. Similar performance in the 2020–2021 winter operating
29 season would result in material improvement in loss of load projections over those noted in

1 Hydro's assessment. Further, all service contracts for the Holyrood TGS have been renewed or
2 are in the process of being renewed with no issues anticipated.

3 [REDACTED]

4 [REDACTED]

5 [REDACTED] Hydro believes it prudent to carefully

6 monitor its asset health, and particularly that of the Holyrood TGS, through the completion of

7 the maintenance season, the progress and anticipated in-service of the Labrador-Island Link,

8 and the potential impacts if any of the COVID-19 pandemic through early fall before seeking

9 market purchases. It is Hydro's opinion that this approach balances the reliability of the system

10 with costs for customers.