

1 Q. **Reference: Program 17 - Gas Turbine In-Service Failures (2023), Page 1, Lines 17-19**

2 Under this program Hydro states that it is proposing to undertake the immediate capital
3 refurbishment and replacement work required for its gas turbines, as needed, to maintain safe
4 and reliable operations and to ensure the availability of capital spares required to support such
5 work. Table 5 of Schedule 1 - 2023 Capital Budget Overview identifies the purchase of capital
6 spares for gas turbines (\$344,200) as a proposal that had been previously deferred.

7 **a)** Please confirm that Program 17 will be utilized in 2023 to purchase capital spares for
8 Hydro's gas turbines as indicated within Table 5. If yes, please identify the capital spare(s)
9 that Hydro plans to purchase. If no, please explain the why it is referenced as such within
10 Table 5.

11 **b)** Please detail the need for additional capital spares with respect to gas turbines given that
12 the Stephenville gas turbine is scheduled for decommissioning and the Hardwoods gas
13 turbine will not be used for generation when the LIL is commissioned.

14 **c)** Please detail the potential consequences of a further deferral of the purchase of additional
15 capital spares for the gas turbines.

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18 A. **a)** Newfoundland and Labrador Hydro ("Hydro") confirms that the Gas Turbine In-Service
19 Failures (2023) Program will be utilized in 2023 to procure capital spares for its gas turbines.
20 The capital spares currently planned for procurement in 2023 include:

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- Potential transformers and current transformers for various sites;

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 - Select spare motor control centre components (e.g., buckets, contactors, etc.) for
23 various sites; and

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 - Human-machine interface computer for the Hardwoods Gas Turbine.

25 Hydro anticipates that its will be required to utilize some of its in-stock capital spares as part
26 of it maintenance program for the gas turbines. Hydro intends to utilize the Gas Turbine In-

1 Service Failures (2023) Program to replenish spares consumed to ensure the reliability of its
2 gas turbines.

3 **b)** The Hardwoods and Stephenville Gas Turbines are currently planned for retirement in 2024.
4 To ensure the safe and reliable operation of both sites until their planned retirement, Hydro
5 may have to utilize some of its current capital spares. Hydro may also be required to procure
6 some capital spares in a prioritized manner for these facilities to ensure their reliable
7 operation until their planned retirement. Given the current compliment of spares and the
8 current planned retirement for these facilities, only spares that can be utilized past the
9 retirement of these gas turbines are currently planned for procurement. Hydro is evaluating
10 the timing of the retirement of the Hardwoods and Stephenville Gas Turbines as part of its
11 Reliability and Resource Adequacy Study (“RRA”). The results of this assessment will be
12 provided in Hydro’s RRA update, to be filed in September 2022.

13 **c)** Deferral of the procurement of additional spares can result in one of Hydro’s gas turbine
14 facilities becoming unavailable or derated for an extended period of time. The unavailability
15 of one of the gas turbines could limit Hydro’s ability to support the Island Interconnected
16 System and Labrador Interconnected System. There is a risk that Hydro would be unable to
17 serve its peak load during times of high demand. Likewise, Hydro would be limited in its
18 ability to respond to unplanned system events if the gas turbines were unavailable due to a
19 lack of spares.