

1 Q. **Reference Application Rev. 1, Volume 1, Section D: Projects Over \$200,000 but less than**
2 **\$500,000, Construct Lube Oil Cooler Hood and Containment System, pages D-9 to D-13**

3 a. Why was this work not completed when the Holyrood Gas Turbine was originally placed in
4 service?

5 b. Does the existing system violate current legislative or regulatory requirements?

6 c. Please quantify the risk, reliability and rate impacts on customers if this project were
7 deferred by a year. With respect to risk, please identify the probability of failure and the
8 consequences of failure. In effect, what is the trade-off between cost to ratepayers, system
9 reliability and risk?

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12 A.

13 a. The construction of a lube oil cooler hood and containment system was not completed
14 when the plant was originally placed in service as it was not in the scope of work of the
15 contract. The unit design did not include a lube oil cooler hood and containment system.
16 Experience in the operation of the unit at its Holyrood location has shown that a lube oil
17 cooler hood is required. During recent winters there has been a significant accumulation of
18 snow on the cooler when the unit is offline and the lube oil is cooler. Additionally, ice
19 accumulation on the structures (powerhouse, exhaust stack, etc.) near the cooler has been
20 identified during recent winters. This ice has fallen from the structure and landed near the
21 lube oil cooler as it became freed from the structure. This type of impact could damage the
22 cooler's tube bundle and result in a lube oil leak.

23 b. The existing system does not violate any current legislative or regulator requirements.
24 However, there is a significant risk of an environmental impact due to damage to the lube
25 oil cooler related to impacts from falling ice. Should a significant spill occur from the
26 Holyrood Gas Turbine's lube oil system occur, the clean up and remediation costs could
27 exceed \$100,000 and the availability of the plant would also be affected. The proposed

1 upgrades address the risk of damage and lost production, along with potential impacts from
2 an associated spill.

3 c. The Construct Lube Oil Cooler Hood and Containment System project is proposed to execute
4 required sustaining capital works for Newfoundland and Labrador Hydro's ("Hydro") existing
5 assets so as to operate, maintain, and renew its infrastructure to achieve required service
6 standards and to optimize the cost of electricity in an environmentally responsible and safe
7 manner.

8 Hydro uses its internal expertise supplemented, when required, by consultants, original
9 equipment manufacturers, and readily available industry information to determine, in
10 Hydro's opinion, the appropriate timing of capital work to maintain service standards and to
11 optimize costs. As noted in the information presented by Hydro, deferral of this project is
12 not a viable option as it will increase the risk of failure. Hydro believes, based upon its
13 knowledge at this time, deferral would be imprudent. The detail requested for
14 quantification of risk and reliability impact requires analysis capability which at this time
15 Hydro does not have within its Asset Management System.

16 With respect to rate impact, Hydro does not compute rate impact on an individual project
17 basis. Hydro's pro forma computation of revenue requirement impact on a total capital
18 budget basis was included in its 2021 Capital Projects Overview.