

1 Q. Reference: *Gas Turbine Failure Analysis, Final Report*, Page 18, Lines 9 to 14:

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3 *“Hydro is currently evaluating the long term need and role for gas turbines on the*  
4 *Island Interconnected System, both on the Avalon and at other locations across the*  
5 *island. This evaluation will inform if heavy investment into the Hardwoods and*  
6 *Stephenville current gas turbine engines is appropriate or if other options such as*  
7 *repowering or replacing is more appropriate. Hydro expects to complete this*  
8 *evaluation as part of the Phase Two Outage Inquiry.”*

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10 Please provide a detailed explanation of all generation, transmission, or other  
11 planning considerations Hydro is taking into account in the above noted evaluation.  
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14 A. As per Board Order No. P.U. 22(2016) “the long-term strategy for Hardwoods and  
15 Stephenville will be addressed as a part of the ongoing Phase II review process and  
16 the Board is satisfied that Hydro should, following the completion of the proposed  
17 refurbishment at Hardwoods and Stephenville, file a report addressing the cause of  
18 the failures and how the causes and any other relevant findings may impact unit  
19 reliability in the short term as well longer term considerations.”  
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21 However, with respect to the future of the existing gas turbines, Hydro continues to  
22 gather information including estimates for gas turbine re-powering, or other major  
23 investment, that may be required to allow for future reliable operation of the  
24 existing gas turbines at Hardwoods and Stephenville. This information will be  
25 compared against other options for capacity, such as off-island firm purchase or  
26 other island generation, to ensure system reliability in the pre and post

1 interconnected years. All options will be considered for rate impact and time frame  
2 to execute.

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4 Preliminary analysis is being compiled for review with the Board, its consultant,  
5 Liberty, and the intervenors regarding current and future system reliability. This  
6 preliminary analysis considers a range of reliability scenarios including the loss of a  
7 monopole, loss of the bipole, and the resultant implications from both a reserve  
8 margin and an expected unserved energy perspective. The goal of this analysis is to  
9 develop a risk profile for the system, in consideration of the likelihood and  
10 magnitude of supply disruption over the Labrador Island Link. The results of the  
11 analysis will help determine the required amount of system generation to meet  
12 Hydro's reliability standards, in consideration of such a disruption. Hydro will be  
13 communicating with the Board on this analysis through the Phase II review.