

1 Q. Page 8 of the Application states *"The Pratt & Whitney GG8 gas generator is normally*  
2 *recommended to undergo a hot section inspection and refurbishment overhaul after*  
3 *it has accumulated 12,500 equivalent liquid fuel base load hours. The Happy Valley*  
4 *gas generator has accumulated approximately 4946 equivalent liquid fuel base load*  
5 *hours to the end of 2016."* The Happy Valley gas generator has been in service since  
6 1992 and, at the end of 2016, the liquid fuel base load hours is only approximately  
7 40% of the normally recommended overall criteria. Please reconcile the low usage  
8 of the generator with the justification for advancing the overhaul provided by Hydro  
9 on page 4.

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12 A. While the gas generator has not yet reached the number of operating hours which  
13 would normally trigger an overhaul, it has developed an internal oil leak which  
14 cannot be repaired on site. The unit must be removed from service and shipped to  
15 an overhaul facility for disassembly and repair. Repair of the engine is necessary to  
16 ensure the gas turbine is available to service the Labrador Interconnected System  
17 for the winter of 2017-2018. As indicated in the response to PUB-NLH-001, the  
18 project costs for the repair and overhaul options differ only in the cost for the work  
19 to be performed in the overhaul facility.

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21 Hydro is proposing that the overhaul be advanced to save the common costs  
22 associated with completing the repair of the unit in 2017 and completing the  
23 overhaul in 2019, and also to eliminate the requirement for a second extended  
24 outage of the Happy Valley gas turbine within the next two years. In addition, the  
25 scope of the overhaul costs could potentially rise if the overhaul is deferred due to  
26 the requirement to upgrade additional components within the engine due to  
27 obsolescence as the engine continues to age. The estimated savings related to

1 completing the repair and overhaul in 2017 versus completing the repair in 2017  
2 and the overhaul in 2019 is \$1.4 M. The overhaul and upgrade scope being  
3 proposed includes only those repairs and upgrades which are required to ensure  
4 the serviceability and reliability of the unit until its next scheduled overhaul.