

1 Q. What changes does Hydro plan to implement, or does Hydro project, in relation to  
2 the maintenance and operation of the Hardwoods gas turbine facility, once the  
3 installation of a new combustion turbine at Holyrood (or at another site, as the case  
4 may be) is completed? Would the changes, and the cost consequences of those  
5 changes, be the same if the new combustion turbine at Holyrood (or at another  
6 site, as the case may be) had achieved operational status in late 2014 instead of late  
7 2015?

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10 A. As indicated in Hydro's response to PUB-NLH-002, generation expansion options are  
11 still being evaluated which include, but are not limited to, a combustion  
12 turbine. Further, as indicated in Hydro's response to PUB-NLH-004, if a combustion  
13 turbine was the chosen option, late 2015 was the earliest in-service date considered  
14 in the 2012 decision analysis due to the overall project schedule.

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16 The Hardwoods gas turbine, located in the St. John's area, is operated as a  
17 synchronous condenser for voltage support of the transmission system on the  
18 Avalon Peninsula, and to generate power under system peak and Avalon Peninsula  
19 emergency/contingency conditions. The unit is also utilized to enable efficient  
20 loading and dispatch of the Holyrood Thermal Generating Station by being available  
21 to respond to a contingency which would otherwise have to be provided by having  
22 an additional unit operating at Holyrood at inefficient loads.<sup>1</sup>

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<sup>1</sup> The Holyrood generating units cannot be quickly turned on and off like gas turbine units to respond to a system problem. Therefore, to provide the same response as a gas turbine, a Holyrood unit must be placed on line and operated at its minimum output level of 70 MW in order to be available to quickly respond to a problem. As problems are unpredictable, this would result in the Holyrood unit being on for many days at inefficient levels of generation, at a time when there would otherwise be no requirement for them to operate.

1 Hydro does not anticipate any change in relation to the maintenance and operation  
2 of the Hardwoods gas turbine facility, once an installation of a new combustion  
3 turbine at Holyrood (or at another site, as the case may be) is completed. The unit  
4 will still be required to provide the same general functionality as it does today. It is  
5 anticipated that a new combustion turbine would supplement the role of the  
6 Hardwoods gas turbine in enabling more efficient loading and dispatch of the  
7 Holyrood Thermal Generating Station. Please refer to Hydro's response to IC-NLH-  
8 005.