

1 Q. **Reference: *Improve Boiler Load Capacity – Units 1, 2 and 3, Holyrood, June 1,***  
2 ***2018, Page 7, Lines 6-8.***

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4 *“If Hydro is in the position to use recapture energy and shut down a Holyrood unit,*  
5 *the remaining units must have the ability to operate at higher loads for spinning*  
6 *reserve requirements.”*

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8 Will maximizing the capacity available for spinning reserve involve operating the  
9 thermal units at Holyrood at low loads during the upcoming winter season?

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12 A. The amount of capacity that a unit is able to contribute to spinning reserve is a  
13 function of its available capacity, less the generation it is actively providing to the  
14 system. By maximizing the available capacity of each of the Holyrood units, Hydro is  
15 able to provide the spinning reserve required for system stability in the most  
16 economic manner possible for the current system.

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18 For example, if a Holyrood unit was online at 70 MW, but derated to 120 MW, that  
19 unit is only capable of contributing 50 MW of spinning reserve to the system. This  
20 could result in the requirement to dispatch another Holyrood unit or gas turbines.  
21 However, if that unit was online at 70 MW but fully available to 170 MW, it would  
22 contribute 100 MW of spinning reserve to the system, reducing the amount of  
23 spinning reserve that would be required to be produced by other thermal sources.

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25 As such, maximizing the available capacity of the thermal units at Holyrood has no  
26 impact on the actual unit loading, as in both examples the units are providing the  
27 same 70 MW contribution to the system, but rather minimizes the number of

1 thermal units required to be dispatched to provide adequate spinning reserve for  
2 the system.

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4 Note that in the upcoming winters, Hydro's intention is to minimize thermal  
5 production in alignment with its mandate of least-cost, reliable service. It is  
6 anticipated that this will result in low unit loading for the Holyrood units.