

1 Q. For each of the next four winter periods, please provide Hydro's forecast of: 1) the  
2 number of times, and 2) the total number of hours that the new 120 MW  
3 combustion turbine under construction at Holyrood will be called upon to operate.  
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6 A. As indicated in Hydro's 2013 Amended GRA Application, for the upcoming winter  
7 periods, to the time of the Labrador Interconnection, there are peaking  
8 requirements assumed for the Island Interconnected System combustion turbines  
9 (CTs) in order to maintain minimum generation reserve requirements. The forecast  
10 requirements for the CTs are determined based on average forced outage rates of  
11 10% for the Holyrood thermal units and 1% for Hydro's hydraulic units, and in  
12 consideration of the peak load forecast<sup>1</sup> and Hydro's typical load duration curve.  
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14 In developing forecast requirements for the CTs, Hydro has determined the  
15 expected number of operating hours required and the level of production. The  
16 total energy is then allocated to each of the required units on a prorated basis  
17 based on the generator MCR<sup>2</sup>.  
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19 Hydro's forecast for combustion turbine production also assumes that each plant is  
20 exercised at rated output for one hour per month during the non-winter period for  
21 testing and for ensuring availability. These units are assumed to be exercised for  
22 four hours during each winter month (approximately once per week) for winter  
23 readiness and storm preparedness.

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<sup>1</sup> Based on a P50 (50<sup>th</sup> percentile) peak load forecast.

<sup>2</sup> Maximum Continuous Rating

Using this methodology, and assuming the 120 MW Holyrood CT is the first to be started when required for system peaking, the expected hours of operation and production requirements for the new 120 MW CT are outlined in Table 1.

**Table 1**  
**120 MW CT**  
**Operating and Production Requirements**

Winter Period	CT Operating Hours		Energy Production GWh
	For Testing	For Peaking	
2014/2015	16	140	4.80
2015/2016	16	230	8.28
2016/2017	16	390	11.80
2017/2018 <sup>(1)</sup>	16	130	4.95

**Notes:**

1. Peaking requirements are assumed to the end of 2017.

Note that, although the expected number of annual operating hours required for peaking is able to be provided, the expected number of starts cannot be readily determined using this methodology.