

1     Q.     Further to response to Request for Information NP-NLH-011, Attachment 1, Page 5  
2             of 8:

3             The forecast Holyrood production is 1,428.9 GWh, which is approximately 25%  
4             higher than the 2013 Test Year forecast of 1,127.4 GWh. However, the forecast  
5             Holyrood conversion factor increased by only 0.5%. Please provide the calculation  
6             of the 2014 forecast conversion factor and explain the assumptions for loading and  
7             operating hours which were used in the calculation.  
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10    A.     Table 1 outlines the assumptions for Holyrood unit loading and operating hours  
11             used in the calculation of Holyrood forecast conversion factor for the years 2013  
12             and 2014. The calculation of 2014 forecast conversion factor has been done in a  
13             similar manner to the calculation of 2013 fuel conversion factor, i.e. as outlined in  
14             Hydro's response to NP-NLH-069. Hydro has used the same regression model and  
15             assumed the same station service factor of 6.56%. For 2014 however, Hydro has  
16             used a net average loading of 92.26 MW. This calculation is shown in Table 2.  
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18             Although Holyrood production has increased by more than 25%, the forecast fuel  
19             conversion rate has increased by less than 1% due to the increased Holyrood unit  
20             operating requirements. Unit operating hours are forecast to increase by more  
21             than 20% primarily due to increased transmission support requirements for the  
22             Avalon Peninsula during the summer. The summer peak load will be higher than  
23             the thermal rating of the transmission system under contingency operation of the  
24             forced outage of one transmission line, after dispatch of all gas turbines on the  
25             Avalon Peninsula and increased output of NP's hydraulic generation.

Table 1

	2013 Test Year	2014 Forecast	YOY <sup>1</sup> Increase	YOY % Increase
Holyrood Net Production (GWh)	1,127	1,429	302	26.7%
Unit Operating Hours	12,890	15,490	2,600	20.2%
Unit Net Average Loading (MW)	87.47	92.26	5	5.5%
Fuel Conversion Rate (kWh/bbl)	612	615	3	0.5%
Note 1: Year over Year				

Table 2

**Calculation of 2014 Forecast Fuel Conversion Rate:**

1 Unit net average loading (kW)	92,260	
2 Station Service Factor	6.56%	
3 Unit gross average loading (kW)	98,740	Line 1/(1-Line 2)
4 Regression Slope (m)	0.00137	(from regression equation)
5 Regression Y-Intercept (b)	14.3372	(from regression equation)
6 Fuel consumption rate (bbls/hour)	149.98	Line 5 + Line 4 x Line 3
7 Net fuel conversion factor (kWh/bbl)	<b>615</b>	Line 1/Line 6