

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 ¹ 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)	615 Line 1/Line 6