

1 Q. Please indicate the additional costs that would have been incurred by Hydro
2 for fuel in 2002 if the Holyrood station had achieved the 615 kW.h/bbl
3 efficiency level that was approved by the Board in the 2001 GRA (as
4 compared to the actual achieved efficiency of 648 kW.h/bbl). Please set out
5 all calculations and data required to complete the above analysis.
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8 A. The attached Table provides the cost analysis of the additional costs if the
9 615 kWh/bbl had been achieved rather than the actual conversion factor. For
10 the analysis it was assumed that the change in conversion factor would not
11 have resulted in different fuel costs per barrel.
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13 The cost per barrel to Hydro is held to the cost established in the RSP. Any
14 variance in the cost per barrel results in an RSP adjustment. Therefore any
15 variance in the number of barrels will result in a change in the RSP fuel price
16 adjustment.
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18 The analysis indicates that in 2002 if the Holyrood conversion factor was 615
19 kWh/bbl there would have been a total increase in fuel expenses of
20 \$6,124,000. Hydro would have experienced an additional cost of \$3,660,000
21 and the RSP would have incurred an additional charge of \$2,464,000.

Cost Analysis on Holyrood Conversion Factor Variance

Calculation		Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-2002	Sep-2002	Oct-2002	Nov-2002	Dec-2002	TOTAL
A	Net Generation (kWhrs)	313,606,500	292,975,000	277,550,900	207,795,100	161,395,000	98,808,400	16,867,360	58,295,140	138,616,100	231,550,000	301,928,700	285,873,800	2,385,262,000
B	Fuel Consumed (bbl)	492,682	438,701	430,391	318,326	249,960	153,988	26,773	93,298	214,810	357,564	461,406	440,284	3,678,183
C= A/B	Actual Conversion Factor(CF) (kWh/bbl)	637	668	645	653	646	642	630	625	645	648	654	649	
D	Assumed Conversion Factor	615	615	615	615	615	615	615	615	615	615	615	615	
E = A/D	Fuel @ Assumed Conversion Factor (bbl)	509,929	476,382	451,302	337,878	262,431	160,664	27,427	94,789	225,392	376,504	490,941	464,835	3,878,474
F = E-B	Variance From Assumed CF (bbl)	17,247	37,681	20,911	19,552	12,471	6,676	654	1,491	10,582	18,940	29,535	24,551	200,291
G	Actual Cost \$/bbl	\$24.4200	\$24.3300	\$26.2200	\$29.9000	\$30.3500	\$31.6400	\$31.8400	\$32.0200	\$33.8000	\$36.4400	\$36.0200	\$35.9800	
H = G x F	Additional Cost @ Assumed CF	\$421,172	\$916,779	\$548,286	\$584,605	\$378,495	\$211,229	\$20,823	\$47,742	\$357,672	\$690,174	\$1,063,851	\$883,345	\$6,124,173
I	RSP Cost \$/bbl	\$12.31	\$12.40	\$12.43	\$12.45	\$12.45	\$12.45	\$12.48	\$12.48	\$25.94	\$26.27	\$26.47	\$26.80	
J = I x F	Additional Cost @ RSP Cost	\$212,311	\$467,244	\$259,924	\$243,422	\$155,264	\$83,116	\$8,162	\$18,608	\$274,497	\$497,554	\$781,791	\$657,967	\$3,659,860
K = H - J	Additional Cost to RSP	\$208,861	\$449,535	\$288,362	\$341,183	\$223,231	\$128,113	\$12,661	\$29,134	\$83,175	\$192,620	\$282,060	\$225,378	\$2,464,313