1	Q.	Compare in detail the COSS firm energy cost and the non-firm energy
2		charge rate as proposed in Schedule A of the Application, assuming the
3		average cost of fuel assumed for the COSS; indicate how this charge could
4		likely vary by month and time of day, based on the assumptions adopted for
5		COSS as to expected fuel use. Explain how in practice it will be determined
6		what fuel source is used to supply non-firm energy. What will happen if this
7		energy is supplied in whole or in part from non-thermal sources?
8		
9		
10	Α.	The following table compares the industrial firm energy charge with the
11		industrial non-firm energy charge by month for 2004. It uses the average
12		cost of fuel used in the cost of service for each source.

		Holyrood		Gas Turbine		Diesel	
Month	Firm Energy Rate	Non-Firm Energy Rate	Variance from Firm	Non-Firm Energy Rate	Variance from Firm	Non-Firm Energy Rate	Variance from Firm
Januarv	\$0.02675	\$0.05267	\$0.02592	\$0,10684	\$0.08009	\$0,11982	\$0.09307
February	\$0.02675	\$0.05205	\$0.02530	\$0.10793	\$0.08118	\$0.11982	\$0.09307
March	\$0.02675	\$0.05189	\$0.02514	\$0.10934	\$0.08259	\$0.11982	\$0.09307
April	\$0.02675	\$0.05189	\$0.02514	\$0.10923	\$0.08248	\$0.11982	\$0.09307
May	\$0.02675	\$0.05169	\$0.02494	\$0.10923	\$0.08248	\$0.11982	\$0.09307
June	\$0.02675	\$0.05169	\$0.02494	\$0.10913	\$0.08238	\$0.11982	\$0.09307
July	\$0.02675	\$0.05169	\$0.02494	\$0.11021	\$0.08346	\$0.11982	\$0.09307
August	\$0.02675	\$0.05169	\$0.02494	\$0.11015	\$0.08340	\$0.11982	\$0.09307
September	\$0.02675	\$0.05158	\$0.02483	\$0.11015	\$0.08340	\$0.11982	\$0.09307
October	\$0.02675	\$0.05154	\$0.02479	\$0.11147	\$0.08472	\$0.11982	\$0.09307
November	\$0.02675	\$0.05151	\$0.02476	\$0.11143	\$0.08468	\$0.11982	\$0.09307
December	\$0.02675	\$0.05150	\$0.02475	\$0.11143	\$0.08468	\$0.11982	\$0.09307

## Comparison of Industrial Firm Rates and Non-Firm Energy Rates

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- 1 The non-firm energy charge will be at the Holyrood non-firm rate for all 2 periods including the periods when no thermal source is operating, except 3 when either or both of the diesel plants and the gas turbine plants are 4 operated or their output must be increased to meet the non-firm load. 5 Typically the diesel plants or gas turbine plants would be required to meet 6 non-firm energy requirements during peak load periods or when there are 7 transmission restrictions to the area of the grid where the customer is 8 located. Although the higher non-firm rates could apply during any hour of 9 the year due to transmission or generation problems, the probability is higher 10 in the winter period (December to March) and during the peak hours of 0800 11 to 2000 hours each day.
- 12

13 The decision to use a higher cost source is made by the power system

14 operator when he determines there is insufficient power or energy available

15 from other sources, either hydroelectric or Holyrood to meet the load

- 16 demanded on the system, or there is insufficient transmission capacity to an
- 17 area where the non-firm load is being demanded.