

1 Q. For each of the interconnected systems, provide the forecast marginal cost of  
2 energy for the peak and off-peak periods of each season for the years 2004  
3 through 2008. In addition, provide the Loss of Load Hours (LOLH) for the  
4 years 2004 through 2008 assuming no new generation is added to the  
5 system beyond that already committed. Show the proportion of the LOLH  
6 attributable to the peak and off-peak periods of each season for each of the  
7 years 2004 through 2008. Provide an estimate of the levelized cost of the  
8 least-cost peaking option. Provide the marginal cost of supply on the Rural  
9 Isolated Systems and for L'Anse au Loop.

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11  
12 A. The report Marginal Time of Use (TOU) Costs completed in September 1984  
13 indicated that with respect to long run marginal costs the seasonality of load  
14 affected costs more than the daily loads as the ratio of winter costs to  
15 summer costs was 1.5 whereas the ratio of on peak costs to off peak in  
16 winter was only 1.1. It is expected that this conclusion would not change  
17 significantly for current conditions. Marginal costs addressing the peak and  
18 off-peak periods within each month are not currently available.

19  
20 The short run marginal cost of energy for the Labrador Interconnected  
21 System in all periods is tied to Hydro's cost of energy from the Churchill Falls  
22 hydroelectric project, which is 2.5426 mills/kWh through 2008.

23  
24 Please refer to Table 8 of Mr. Haynes' Production Evidence for the LOLH for  
25 the years 2004 through 2008 assuming no new generation is added to the  
26 system beyond that already committed.

1 At the present time, Hydro's generation planning model is not able to identify  
2 the LOLH attributable to the peak and off-peak periods in each month.  
3 However, the seasonal contributions to the annual LOLH for the Island  
4 Interconnected System are available and shown in the following table:

**Seasonal Contribution to Annual LOLH (hrs)**

	2004	2005	2006	2007	2008
Jan	0.57767	0.61604	0.69676	0.83340	0.98049
Feb	0.19302	0.23496	0.26843	0.32653	0.34024
Mar	0.05170	0.05630	0.06455	0.07977	0.09659
Apr	0.00132	0.00150	0.00181	0.00240	0.00304
May	0.00005	0.00006	0.00008	0.00011	0.00014
Jun	0.00000	0.00002	0.00002	0.00003	0.00003
Jul	0.00000	0.00000	0.00000	0.00000	0.00000
Aug	0.00000	0.00000	0.00000	0.00000	0.00000
Sep	0.00000	0.00000	0.00000	0.00000	0.00000
Oct	0.00079	0.00090	0.00105	0.00143	0.00188
Nov	0.00871	0.00964	0.01118	0.01425	0.01770
Dec	0.24853	0.26763	0.30069	0.36072	0.42537
Total	1.08180	1.18705	1.34457	1.61864	1.86548

1 The levelized cost of the least-cost peaking option is estimated to be  
2 \$100/kW-yr.

3

4 The attached table gives the short run marginal cost of supply on the Rural  
5 Isolated System based on fuel only. The short run marginal cost of supply  
6 for L'Anse au Loup is given for both diesel operation and for purchases under  
7 the secondary energy contract from Hydro-Quebec.

**Short Run Marginal Cost of Supply**  
**Rural Isolated Systems and L'Anse au Loup**

	<u><b>2004</b></u>	<u><b>2005</b></u>	<u><b>2006</b></u>	<u><b>2007</b></u>
	<b>\$/kWh</b>	<b>\$/kWh</b>	<b>\$/kWh</b>	<b>\$/kWh</b>
Francois	0.152	0.149	0.149	0.149
Grey River	0.134	0.132	0.132	0.131
Little Bay Islands	0.128	0.126	0.125	0.125
McCallum	0.131	0.129	0.129	0.128
Ramea	0.107	0.105	0.105	0.105
Rencontre East	0.147	0.145	0.145	0.144
St. Brendans	0.132	0.130	0.130	0.130
Black Tickle	0.130	0.128	0.128	0.127
Cartwright	0.139	0.137	0.137	0.136
Natuashish*	0.128	0.126	0.126	0.125
Charlottetown	0.128	0.126	0.126	0.125
Hopedale	0.157	0.155	0.155	0.155
Makkovick	0.129	0.127	0.126	0.126
Mary's Harbour				
- Diesel	0.121	0.119	0.119	0.119
- purchased power	0.109	0.107	0.107	0.107
Nain	0.126	0.124	0.123	0.123
Norman Bay	0.220	0.217	0.216	0.216
Paradise River	0.257	0.253	0.252	0.252
Port Hope Simpson	0.142	0.140	0.140	0.139
Postville	0.131	0.129	0.129	0.128
Rigolet	0.141	0.138	0.138	0.138
St. Lewis	0.136	0.134	0.134	0.133
William's Harbour	0.184	0.181	0.181	0.181
L'Anse au Loup				
- Diesel	0.147	0.145	0.145	0.145
- purchased power	0.050	0.049	0.049	0.048

\*Assumes Natuashish relocation from Davis Inlet.