

1 **Volume 2, Tab 8 – Customer, Energy and Demand Forecast**  
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3 **Q. (page 3) “The current model indicated that a 1 percent change in the price of**  
4 **electricity will result in a 0.25 percent decrease in energy sales” Has NP compared**  
5 **its elasticity assumption to actual experience in recent years? Please provide all**  
6 **analyses relating to price elasticity effects conducted by NP or on its behalf in the**  
7 **past five years.**

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9 A. Changes in energy sales are a result of the interaction of many economic, demographic  
10 and price factors. Consequently, it is not possible to determine with certainty the actual  
11 direct impact of any one variable, such as price elasticity. However, it is possible to  
12 assess the reasonableness of assumptions by examining how energy sales change in  
13 relation to changes in the underlying factors.

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15 Table 1 shows the change in Newfoundland Power’s domestic average use for the period  
16 2000 to 2006 in relation to changes in the principal underlying factors.

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21 **Table 1**  
22 **Comparison of Changes in Domestic Average Use and Underlying Factors**

	Domestic Average Use	Electric Space Heating Market Share	Personal Disposable Income/ Customer Index (\$1992)	Electricity Price Index (\$1992)	
				Current Year	Previous Year
2000	14,721	53.1	91.5	98.2	100.1
2001	14,927	53.8	93.6	96.3	98.2
2002	15,144	54.6	92.6	94.3	96.3
2003	15,322	55.5	93.0	95.0	94.3
2004	15,443	56.5	93.9	99.6	95.0
2005	15,309	57.4	93.2	105.5	99.6
2006	15,096	58.2	94.1	108.8	105.5

23 From 2000 to 2004, domestic average use increased from 14,721 kWh/year to 15,443  
24 kWh/year. During this period, the electric space heating market share and personal  
25 disposable income per customer increased, while the price of electricity decreased. The  
26 changes in the underlying factors through the period were all consistent with the increase  
experienced in domestic average use.

1 In the 2004 to 2006 period, the electric space heating market share and personal  
2 disposable income per customer continued to increase. Based on previous experience  
3 and basic economic principles, further increases in domestic average use would be  
4 expected. However, domestic average use decreased from 15,443 kWh/year to 15,096  
5 kWh/year, suggesting a stronger correlation with the increasing price of electricity  
6 through the period.

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8 Newfoundland Power has not changed its forecasting methodology since 1998; however,  
9 the forecasting models are updated annually to include the most recent year's data.  
10 Analysis of the Company's forecasting models shows that the overall sensitivity of  
11 energy sales to changes in the price of electricity is gradually increasing.

12  
13 According to the 1998 model, a 1.0 per cent increase in the price of electricity would  
14 result in a 0.21 percent decrease in energy sales, compared to a 0.23 percent decrease  
15 indicated by the 2003 model and a 0.25 percent decrease indicated by the 2007 model.

16  
17 This increase in sensitivity of energy sales to price is consistent with the growing base of  
18 electric space heating in the Domestic class, as customers can readily react to price by  
19 reducing usage or switching to another heating source.