

MANITOBA HYDRO

2012/13 & 2013/14 ELECTRIC GENERAL RATE APPLICATION

UNDERTAKING PROVIDED BY: L. MORRISON

Manitoba Hydro Undertaking #67

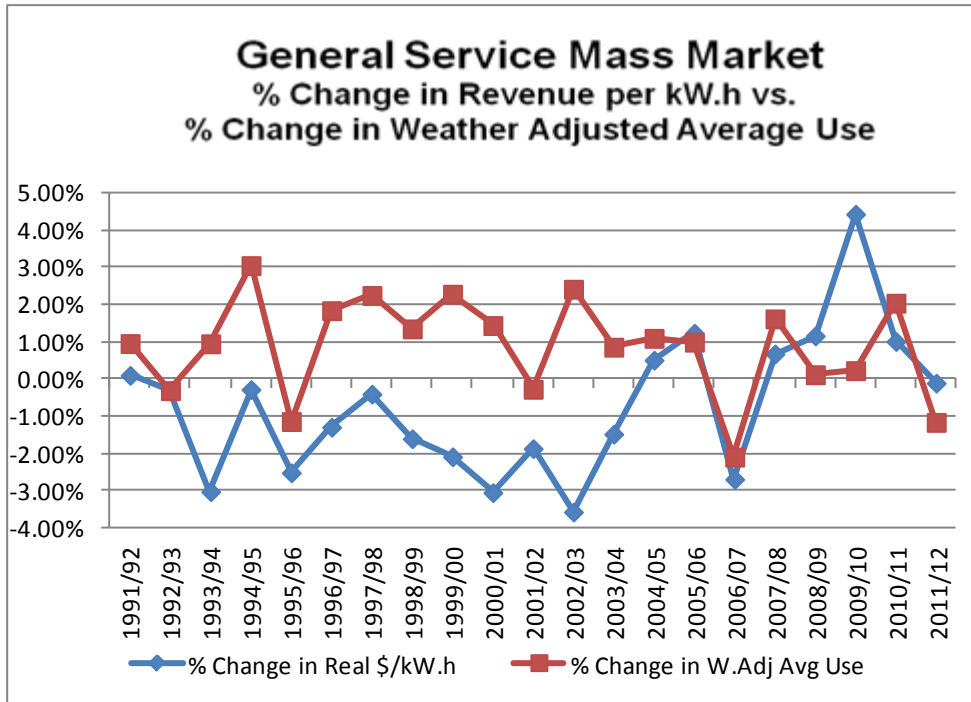
Manitoba Hydro to provide the data in support of the analysis on whether to date there has been a statistically significant relationship between general service customer's demand and price changes; a narrative of Hydro's analysis; and the data from any statistical tests that Manitoba Hydro may have employed in concluding that there was not a statistically significant relationship between price and general service customer demand.

Response:

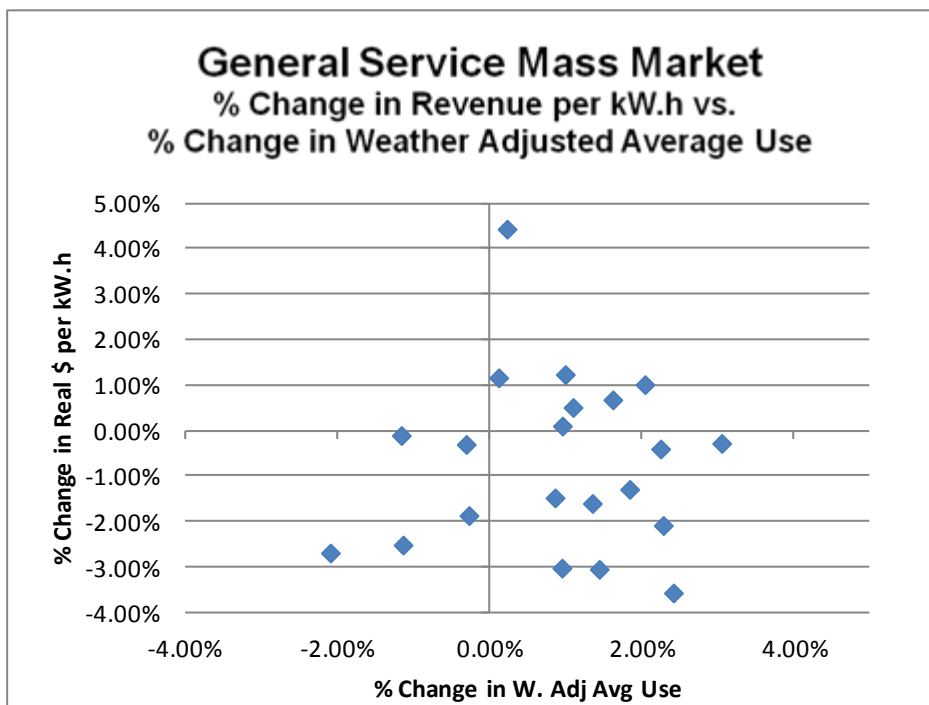
The following table shows average weather adjusted customer usage compared to the average cost of electricity paid in cents/kWh for the General Service Mass Market sector. This average rate is then adjusted for inflation, and given as a real cents/kWh.

Year	GSMM Average Customers	GSMM W. Adj. GW.h	Nominal \$/kW.h	Real (2011/12) \$/kW.h	WAdj Avuse (kW.h / Ave Cust)	% Delta Real (2011/12) \$/kW.h	% Delta WAdj Avuse (kW.h / Ave Cust)
1990/91	57,450	6,036	\$0.045	\$0.069	105,071		
1991/92	57,403	6,089	\$0.047	\$0.069	106,077	0.10%	0.96%
1992/93	57,524	6,083	\$0.047	\$0.069	105,753	-0.30%	-0.31%
1993/94	57,620	6,151	\$0.047	\$0.067	106,760	-3.02%	0.95%
1994/95	57,773	6,356	\$0.048	\$0.066	110,016	-0.28%	3.05%
1995/96	58,054	6,314	\$0.048	\$0.065	108,768	-2.51%	-1.13%
1996/97	58,093	6,435	\$0.048	\$0.064	110,771	-1.29%	1.84%
1997/98	58,416	6,616	\$0.049	\$0.064	113,262	-0.40%	2.25%
1998/99	59,040	6,777	\$0.049	\$0.063	114,793	-1.60%	1.35%
1999/00	59,494	6,985	\$0.049	\$0.061	117,413	-2.08%	2.28%
2000/01	59,759	7,118	\$0.048	\$0.060	119,106	-3.04%	1.44%
2001/02	60,086	7,137	\$0.048	\$0.058	118,786	-1.86%	-0.27%
2002/03	60,265	7,332	\$0.048	\$0.056	121,656	-3.57%	2.42%
2003/04	60,672	7,445	\$0.048	\$0.056	122,704	-1.47%	0.86%
2004/05	60,924	7,558	\$0.049	\$0.056	124,051	0.51%	1.10%
2005/06	61,491	7,704	\$0.051	\$0.056	125,287	1.23%	1.00%
2006/07	63,596	7,801	\$0.051	\$0.055	122,669	-2.69%	-2.09%
2007/08	63,855	7,960	\$0.052	\$0.055	124,657	0.68%	1.62%
2008/09	64,140	8,005	\$0.054	\$0.056	124,808	1.16%	0.12%
2009/10	64,758	8,101	\$0.056	\$0.058	125,097	4.43%	0.23%
2010/11	65,193	8,322	\$0.057	\$0.059	127,651	1.01%	2.04%
2011/12	65,546	8,270	\$0.059	\$0.059	126,174	-0.10%	-1.16%

Subsequently, the change in average use is related to the change in price, in order to determine price elasticity. The following chart presents the percent changes of average use and price by year.



The following chart shows the percent changes of average use plotted against percent changes of price.



The data does not indicate any obvious relationship between price and usage in the General Service Mass Market sector. There are various reasons for this, but the main reason is that other factors outweigh the price effect, essentially hiding the effect of price.

The data has also been tested with lag prices with consistent findings.

Top Consumers were excluded from the above analysis so as to not disproportionately influence the results for the general service sector. For most of the Top Consumer customers, changes in their electricity use is more closely related to the economic outlook for their particular industry rather than to the price of electricity. If demand for their product is high, production and the corresponding energy use will increase. If demand declines, production and therefore energy use will decline. For the few Top Consumer customers where electricity price is a major cost of their production, the key decision element is not small price changes, but is the price of electricity in Manitoba relative to the price in other jurisdictions and the ability of the company to move to other jurisdictions should the costs shift. That scenario has not happened in the past and is not forecast to occur in the future as Manitoba Hydro anticipates maintaining its relative price position.