

29 November 2007

Ontario Energy Board
PO Box 2319, 26th Floor
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Attn Chris Cincar

Re: Ontario Energy Board Smart Price Pilot Report, July 2007

Dear Sir,

Having studied the impact of the Smart Meter program from a theoretical point of view, it was of great interest to me to read the results of the OEB Sponsored Smart Price Pilot Study (OSPP) conducted in Ottawa in 2006/2007.

I am concerned that the OSPP was quite limited in scope, there are omissions in the cost-benefit analysis and the conclusions are misleading and biased

Participation in the OSPP

While the participants were randomly selected from the Ottawa area they were not representative of the average population in Ontario. For example:

- (a) 77% of the participants homes were built after 2001
- (b) 83% of the participants were college/university graduates or higher.
- (c) Less than 9% of the participants had a total income of less than \$50,000 whereas Ontario overall has double this number earning less than \$50,000. In fact 88% of participants incomes were in excess of \$75,000 with 17% exceeding \$150,000.

It is quite clear from this information that the participants were largely from the more educated and affluent segments of society.

Study Methodology

The study time period was only seven months, therefore the full impact of annual cycle is missing.

The study was based on evaluating the impact of different pricing structures on the group as a whole. This did not reveal the true impacts/hardships for different demographic groups such as low-income families and retirees versus mid and upper income working families. The normal load profiles for these groups are totally different.

Study Results

1. Economic results

(a). Load Shifting

The only statistically significant shift in load away from peak periods was measured during two critical peak days called in August.

The only other statistically significant load shifting evident by members of the three price groups during the five critical peak days in September or January was an **increase** in load on January 17. This confirms the difficulty of shifting load during the winter that was identified by the focus groups.

Load shifting away from the On-Peak period for all days in the pilot, not just critical peak days, was also analyzed. **These results showed no applicable statistically significant load shifting from On-Peak periods as a result of the TOU price structure alone.**

Minimal savings of an average of \$1.44/month were identified as a result of load shifting.

(b). Conservation

During the study participants achieved far greater savings of \$2.73/month by simply reducing consumption of electricity.

(c). Cost-Benefit

The “savings” claimed do not take into account the billions of dollars the smart meter program will cost. These costs will more than outweigh any savings claimed by this study.

2. Feedback from participants

Expected Bill Impact

“The impact on individual bills seemed to be less than many focus group participants had hoped. Few of the focus group participants felt they had realized “large” savings on their electricity bills. In fact, many focus group participants expressed disappointment that their efforts did not result in greater savings.” If this is how the participants felt, how would they feel if the full cost of the smart meter program was included??

Overall satisfaction

“The majority (78%) of survey respondents would recommend the time-of-use pricing plan to their friends, while only 6% would definitely not” This feedback is flawed since the cost for the smart meter program had not been considered.

“Respondents most frequently cited more awareness of how to reduce their bill, giving greater control over their electricity costs and environmental benefits as the top three reasons behind the satisfaction.” This is an exaggeration of the facts, no doubt to make the results more “politically correct”. 8 categories were used to rate satisfaction. Environmental Benefits were mentioned by only 52% of respondents and is shown in 6th place, only ahead of “Other” or “None” each of which were mentioned by 1% of the participants. I.e. Environmental Benefits were the last of 6 reasons behind the satisfaction. (See table on page 54 of the Report.). To put these reasons in true perspective, the Table in Appendix G shows that only 1% of the participants gave the Environment as the top reason.

“Those not sure or who would not recommend the program cited insufficient potential savings and too much effort as the reasons why.”

Conclusions

The OSPP confirmed the intuitively obvious; managing summer and winter peak loads are two different challenges. Air-conditioning is the key focus in the summer and consumers have some ability to respond to demand. In the winter there is little opportunity to load shift and conservation is the target. The Smart Meter Program (TOU) is a very expensive way to address these challenges and has marginal impact. There are more cost effective ways to meet these challenges without placing severe hardship on certain groups of the population.

TOU Pricing

If we believe the government’s premise that the TOU Pricing Program is not a way of price-gouging, then the program would be a zero sum exercise. I.e. overall, the same amount of dollars would be collected from the consumers, but those using on peak supply would pay more and those using off peak supply would pay less. This is fine as an overall broad concept. However in reality, the poor, the sick and the conscientious all get penalized by this system and finish up subsidizing those who can really afford to pay.

As an example consider a retired couple who have bought all the energy efficient appliances they can and have cut back their consumption of electricity to the absolute minimum. For this couple to “stay whole” in the summer, they will have to simply cut back on what little air-conditioning they use since most of the electricity used would be at peak periods would be charged at 3 times the off peak rate, instead of the lowest tier in the current pricing system.

During the winter this couple would have no option for further load shifting or conservation other than eating sandwiches in the dark during the supertime peak.

My studies show that high volume users of electricity, those with electric heating and large working families with children in school will benefit from TOU pricing at the expense of low volume stay at home users, even if they do nothing. The reason being the high volume users mentioned above can benefit from the entire weekend of off peak rates, whereas the low volume users do not have enough weekend demand to get the same advantage. This is an in justice and is morally wrong.

Recommendations

The Smart Meter Program should be suspended immediately until a true cost estimate and the impact it will have on consumer's bills is made public.

Alternate less costly ways of reducing peak demands should be evaluated. Consider methods that reward rather than penalize consumers who conserve reduce their overall consumption.

Since the summer peak is driven by air-conditioning demand, "a stick and carrot" approach could be used. Simply expanding the current summer pricing system by another tier or two would protect the low consumption customer and place the burden where it belongs, on the high consumption customer. This would only require a minor additional change to the billing system, which is changed twice per year already. This would soon get the attention of those who have massive homes and leave all their doors and windows open when running their air-conditioning. The technology to electronically turn off the air-conditioners of willing participants should be made widely available. This could be done on a rotating basis so that no one consumer has to off line for a prolonged period. An annual cost rebate should be applied to consumers bill for participating in such a program.

As the OSPP concluded, there is little room for load shifting during the winter peak; so overall conservation is the goal. Lighting is a major consumer of electricity in the winter and more incentives should be given to people to change out their light bulbs or buy more energy efficient appliances. The OPA's IPSP suggests that the smart meter program can reduce peak electricity demand by 176MW. Assuming an energy saving of 50W for each new low energy light bulb, this reduction in demand could be achieved by 3.52 million light bulbs. If the government gave these away at a cost of say \$8 per bulb it would cost \$28 million, a far cry from the \$2+ billion for the Smart Meter Program. This is a guaranteed way of achieving the targeted reduction without the need for monitoring and follow up. Of course that would reduce the need to expand the bureaucratic empire of the Conservation Officer which might be unacceptable!

Yours truly,

Tom Hughes
President