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BY E-MAIL AND WEB POSTING

December 23, 2013

**To: All Participants in EB-2010-0364
All Licensed Electricity Distributors
All Licensed Electricity Retailers
All Other Interested Parties**

Re: Time of Use Rates in Ontario – Part 1: Impact Analysis

A Board commissioned report (the “Report”) prepared by Navigant Consulting Ltd., entitled “Time of Use Rates in Ontario – Part 1: Impact Analysis” was posted on the Board’s website today. This Report is the first follow-up analysis based on the recommendations of the Board’s [Consultation on Regulated Price Plan Time-of-Use Pricing \(EB-2010-0364\)](#). The major recommendation from this consultation was that the Board should develop a time-of-use (TOU) database to support analysis of alternative pricing regimes and TOU price setting methodologies.

Background

The Board has assembled a database of hourly load data from 16 electricity distributors throughout the Province. The initial database consisted of about 200 Regulated Price Plan (RPP) customers per LDC and includes residential and general service (small commercial and industrial) customers with less than 50 kW demand. Most of the LDCs provided at least one year of pre- and post-TOU data. The post-TOU data are being collected on an ongoing basis.

Navigant Consulting augmented the Board’s database to 13,500 customers (9,500 residential and 4,000 general service) by adding data from Toronto Hydro, Hydro Ottawa, Hydro One and Newmarket-Tay Hydro. The distribution companies in the database serve about 60% of residential electricity consumers in Ontario and nearly 40% of the general service customers.

Navigant used two separate econometric methods for estimating the impacts of TOU pricing on customer demand. For the residential sector, both methods produced similar estimates for the impact of TOU rates on summer on-peak demand. Results were less robust with the analysis of the general service customers with peak demand less than 50 kW.

Highlights of the Report

- Residential consumers appear to be reducing their on-peak consumption and increasing their off-peak consumption in response to TOU prices.

Navigant's analysis shows that residential consumers reduced their summer on-peak and mid-peak usage by an average of -3.3% and -2.2%, respectively. Off-peak weekday and weekend consumption increased an average 1.2% and 1.9%, respectively. There was minimal conservation response attributable to TOU rates in the summer period.

- Winter residential demand decreased in all TOU periods. These reductions ranged from -3.9% to -3.4% in the mid-peak and on-peak periods, respectively. Off-peak weekday and weekend consumption was also reduced by -2.5% and -1.2%, respectively. These estimates indicate that some of the load reduction could be attributed to conservation in response to TOU rates in the winter period.
- The findings for the general service customers are weaker than the residential results and are statistically significant only for the summer mid-peak period. These inconclusive results are probably associated with the less representative sample of customers and the diverse customer groups and usage in this sector.
- Residential annual commodity costs, i.e., energy only charges, per customer are estimated to be approximately \$12 lower because of load shifting and conservation driven by TOU pricing.
- Province-wide residential on-peak load demand reductions were estimated to be 179 MW in the summer and 204 MW in winter. However, the largest residential load reduction was estimated at 269 MW in the winter mid-peak period.

Next Steps

The data and the estimated econometric models have been used to assist in assessing the effectiveness of different TOU rate structures and price regimes. Part 2 of the TOU analysis will examine several different TOU structures and pricing regimes and estimate the impacts on consumer electricity demand and system-wide impacts of these regimes. Part 2 of the analysis with more details on the TOU price review consultation process will be issued in the first quarter of 2014.

If you have any questions about the report, please contact Russell Chute at 416-440-7682 or by email at russell.chute@ontarioenergyboard.ca. The Board's toll free number is 1-888-632-6273.

Yours truly,

Original signed by

Kirsten Walli
Board Secretary