

# New rate plans, new choices, new savings



A lectra Utilities partnered with the Ontario Energy Board (OEB) to develop the Advantage Power Pricing (APP) program, which compares the effect of three new time-of-use (TOU) rate plans on customers' behaviour, energy use and energy costs. TOU pricing, with one standard rate structure, was introduced in Ontario more than a decade ago to reduce electricity consumption during "peak" times of the day by shifting energy usage to non-peak times. The APP rate plans provide consumers with more choice, empowering them to reduce their energy consumption even more.

#### Innovating & Collaborating together to:

- Determine the optimal price structure to achieve efficient electricity system operation and investment
- Offer consumers incentives and opportunities to reduce their electricity bills
- Provide more energy use choices for consumers to fit their lifestyle needs
- Enhance consumer energy literacy and response through non-price tools

## The Challenge

Consumers make energy use decisions that suit their lifestyle needs, address their pocketbooks, and make use of new smart home technologies. New time-of-use (TOU) rate options must balance these consumer needs while reducing peak-time demands on the grid to achieve efficient system operations. The programs must evaluate the impact on the grid and any related effects on consumers' conservation and demand management behaviours.

### The Solution

The Advantage Power Pricing (APP) program tests three alternative TOU pricing schemes across 9,000+ consumers: an Enhanced plan, a Dynamic plan and an Overnight plan. "Shadow" bills and "nudge" reports also test conservation and load-shifting behaviours for a subset of participating customers. Results are compared with a control group that uses Ontario's standard TOU plan. Preliminary results showed substantial decreases in On-Peak consumption for users on the Overnight plan and the Dynamic plan. Evidence further suggests that nudge reports are a successful way to reduce consumption during On-Peak hours.

### NOTABLE RESULTS RELATED TO NUDGE REPORTS INCLUDE

 Decreased On-Peak consumption relative to the standard control for both the Enhanced and Dynamic plans.

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- $\checkmark$  For participants in the Enhanced plan, nudge reports resulted in a 1.5 percent decrease in On-Peak consumption and no change in the Off-Peak consumption.
- Enhanced: Same structure & times as TOU, but with greater differential between on/off peak 12 am 7am 11 am 12 am 5pm 7pm Off-Peak Mid-Peak On-Peak Off-Peak (4.4¢/kWh) (13.2¢/kWh) (17.6¢/kWh) (4.4¢/kWh) Dynamic: Variable Peak Pricing rate plan with peak period 3:00-9:00 pm **12** am 3pm 9pm 12 am Off-Peak On-Peak (Variable rate) Off-Peak  $(10.0^{\text{c}}/\text{kWh}, 20.0^{\text{c}}/\text{kWh} \text{ or } 40.0^{\text{c}}/\text{kWh})$   $(4.9^{\text{c}}/\text{kWh})$ (4.9 @/kWh)Overnight: Similar to Enhanced but with a 4th, super off-peak rate from 12:00 am - 6:00 am **12**am 12 am 6am Super Off-Peak Off-Peak  $(2^{c/kWh})$ (6.5 @/kWh)Standard TOU: For comparison 12 am 7am 11 am 5pm 12 am 7pm Off-Peak Mid-Peak On-Peak Off-Peak (6.5¢/kWh) (13.4¢/kWh) (9.4¢/kWh) (6.5¢/kWh)
  - ✓ For Dynamic plan customers, the reports reduced consumption during Critical Peak Price hours by 3.5 percent but did not significantly decrease consumption for On-Peak or Off-Peak hours.



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