



THE COSTS AND BENEFITS OF REAL-TIME PRICING

SUMMARY

Study

This study, from Citizens Utility Board (CUB) and Environmental Defense Fund (EDF), analyzes how consumers who are currently paying traditional, flat-rate electricity pricing would have fared under a “real-time pricing” program offered by Illinois’ largest utility, Commonwealth Edison (ComEd).

Real-time pricing programs charge participants an electricity price that changes hourly according to wholesale market conditions.

Using actual usage data from the new digital advanced meters, or smart meters, of more than 300,000 anonymous customers, this is the most comprehensive study of its kind in the country.

Methodology

The EDF/CUB analysis used 12 months of energy-usage data, anonymized by zip code, in 2016, from the smart meters of 344,717 ComEd residential customers. Monthly savings were found by calculating a customer’s monthly charges arising from each component of the flat-rate and hourly pricing structures.

Findings

- **97 percent** of the households in the study would have saved with real-time pricing, compared to the costs they actually incurred under the traditional power price.
- The average savings would have been **\$86.63, or 13.2 percent**, annually.



- Total savings would have been **\$29.8 million**.
- The top 5 percent of savers would have cut their electric bills by an average of **\$104 a year, or 31 percent**, on their overall bills.
- Of the small percentage of customer who would have lost money, the median customer lost an estimated **\$6.23 on the year**. Nine out of 10 of such customers would have lost less than 5.3 percent, compared with their annual bill.

Key Recommendations

- In order to better evaluate how alternative rate structures can benefit consumers, states should allow access to scrubbed, household energy-usage interval data at the ZIP+4 level.
- States should explore offering customers real-time pricing as an alternative option to flat-rate pricing.
- Policymakers should investigate the costs and benefits of introducing real-time pricing for customers on an opt-out basis, rather than as a passive “opt-in” elective.
- Policymakers should explore the costs and benefits of other dynamic-pricing programs, such as “time-of-use” rates – where prices vary for different periods of the day, but in fewer time intervals as real-time pricing.
- States should use creative energy efficiency and demand-response programs to help customers reduce their “Coincident Peak.” Coincident peak is a measure of an individual customer’s usage when the electric grid is operating at peak demand.