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High-powered changes in how you get electricity

State approves rate hike for ComEd to begin developing a new system; critics may appeal, saying customers shouldn't have to pay so much

By Joshua Boak

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There are problems with having a 19th Century power grid in the 21st Century.

- When an outage occurs, a utility only learns about it if customers call.
- Many customers unintentionally waste electricity on a daily basis because they see their bills only once a month.

The Illinois Commerce Commission took steps Wednesday to remedy these issues, approving a \$270 million rate hike for Commonwealth Edison that encourages the utility to begin developing a "smart grid."

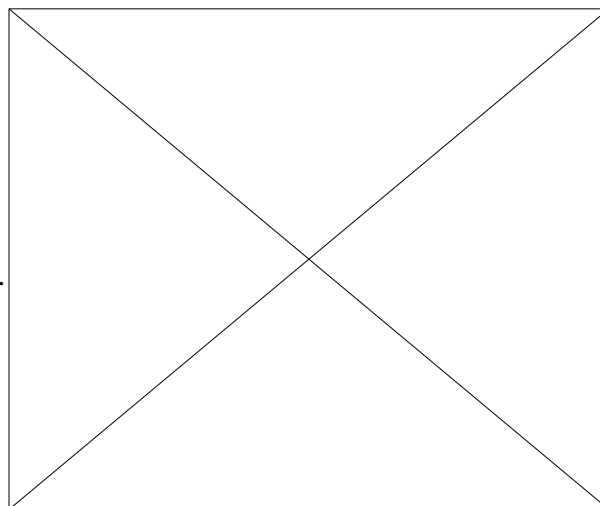
Under the increase, set to take effect Sunday, a typical ComEd customer will pay an additional \$4.50 in delivery charges each month. The payment will cover maintenance and operations of the existing network, while ComEd studies how to build a more responsive grid and introduce the next generation of electricity meters.

"The smart grid is the future," said Robert Lieberman, an ICC commissioner. "What we did today is start a process that will fundamentally change the way we buy, sell and use electricity."

With a smart grid, the utility would know when outages happen and could manage the output from multiple power plants. Customers would have real-time information about how much electricity costs. And the entire power system could be ready for a surge in use if plug-in hybrid vehicles find their way into American garages.

To fund the construction of a smart grid, ComEd might level another surcharge of \$3 a month, the utility estimated. While improving energy efficiency is popular, the costs associated with the electricity infrastructure are not. The Citizens Utility Board plans to appeal the ICC decision, saying ComEd can at best justify a \$39 million increase.

"The crux of the issue is what does the company need in order to stay healthy and maintain service quality," said CUB spokesman Jim Chilsen.



Illinois Atty. Gen. Lisa Madigan is reviewing whether to also file an appeal, said spokeswoman Robyn Ziegler.

AARP Illinois opposes the new delivery charges. Bob Gallo, its executive director, said the ICC "failed the people of Illinois and largely ignored their collective voices."

Anne Pramaggiore, ComEd's executive vice president of regulatory affairs, said in a statement: "While ComEd is committed to keeping rates as low as possible, we are also committed to providing our 3.8 million customers with reliable service. This increase is necessary to respond to higher infrastructure improvement costs and to support growing demand."

ComEd initially requested a \$361 million increase.

An obstacle to financing the smart grid is that the expenses primarily mount upfront and the benefits accrue later, said ICC Commissioner Sherman Elliott.

The argument for having a smart grid rests on the notion that it will eventually save money by making ComEd and its customers behave more efficiently.

A smart grid uses sensors and computers, improving communication about how and where electricity is used. That can influence the most basic elements of your bill.

Most ComEd customers pay for an average price of electricity, rather than the price of electricity when they actually used it.

ComEd has a real-time pricing pilot program. A smart grid could expand on that, letting customers see their entire bills, instead of just the rates, in real time.

How it works

Tom Hulsebosch signed up for the ComEd pilot program last year and decreased his energy usage by 30 percent this summer.

His air conditioning automatically shuts down each time electricity goes past 14 cents a kilowatt-hour, about three pennies above the statewide average for residential customers.

Hulsebosch said his rates can vary between 2 cents to 30 cents a kilowatt-hour. His energy use dropped in the summer as he changed his behavior in response to prices.

"So far, I've saved \$20 over half a year," said Hulsebosch. "It's not much but it's fascinating."

The fascination for Hulsebosch happens to be a professional one. He leads the energy and utilities practice for West Monroe Partners, a Chicago consulting firm.

Hulsebosch is a fan of the smart grid because of a challenge that could lay ahead for electric utilities decades from now. With crude oil and gasoline prices at historic highs, there is public interest in driving plug-in hybrid cars such as the Chevy Volt.

Cars could pose problem

Having a country of power cords running from wall sockets to 160 horsepower engines could wreak havoc on an outdated grid. Demand for electricity would skyrocket and those who plug in when prices are high could have shocking bills.

"People don't realize what that does to the grid," Hulsebosch said. "If you used a plug-in, it could take up to 40 percent more electricity for a residential house."

Given that possibility, consumer advocates such as CUB plan to stay active in campaigning for the smart grid to benefit customers and not just the bottom lines of utilities.

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