Getting smart about the power grid

October 1, 2008

There's a silver lining to the recent Illinois Commerce Commission ruling in favor of a $270 million ComEd rate hike. Separate from the increase, the decision opens the door for money-saving "smart-grid" improvements to a system that's still using technology that dates back to years before Orville and Wilbur first took flight.

Even better, Illinois' largest and most powerful electric utility is required to do this with input-and agreement-from consumer advocates and without the fat, ask-no-questions blank check it desired.

Contrary to some reports, the rate hike, which CUB is appealing, will not help build a smart grid. That $270 million simply covers operation and maintenance costs, including an overly generous profit for stockholders. However, the ruling also sets the stage for complex electric-system improvements. By using Internet technology, we can vastly improve communication among consumers, utilities, power plants, and energy markets, potentially leading to better prices and better reliability.

That's good news in today's energy crisis. Prices are skyrocketing and our grid system can't keep up with demands. We use more and more electricity, but we're not building power plants because that costs billions of dollars. Even former oilman T. Boone Pickens is willing to go on TV and admit we have a problem. That's why the smart grid is vital. You can't use 19th century technology to solve a 21st century problem.

A true smart grid could cut electric bills and lead to better reliability. Here's how:

• Improve energy efficiency. TV, computers and other appliances consume energy even when they're not in use. This "vampire power" devours up to 10 percent of your energy usage. Another 5 percent is lost on the way to your home because of the distribution system's inefficiencies. So 15 percent of generated power is wasted. By allowing for smarter appliances that automatically cycle on and off or power down when not in use, a smart grid could lead to tremendous consumer savings. And while there will always be some "line loss," a smarter grid will significantly improve power distribution efficiency.

• Enable money-saving rate plans. Most consumers pay a set rate for electricity, even though the actual price varies over the course of a day. Power is actually quite cheap, aside from a limited number of summer hours, when air conditioners are blasting. Reducing demand during these peak usage times, which have a huge impact on the average prices we pay, is the best way to cut electric bills. A true smart grid could help accomplish this by allowing for "peak-time rebate pricing." Consumers who cut their usage during peak times would receive a credit on their bills, benefiting everyone in the process by lowering energy prices.

• Detect power outages. ComEd actually doesn't know if your power is out until you or a neighbor calls. The smart grid would let it automatically detect outages and, in some cases, fix them automatically too.

So a smart grid can cut electric costs and improve reliability. The trick is to make sure consumers don't get slapped with the bill without getting the benefits. The ICC's ruling helps by forcing ComEd to work with consumer advocates. We're going to do everything we can to build a true smart grid-before customers pay a dime.

Citizens Utility Board executive director David Kolata writes a column each month. To reach CUB, call (800) 669-5556 or e-mail info@citizensutilityboard.org.