

Smart grid too good to pass up

By Jim Nowlan

Everyone agrees that building a “smart grid” onto our electrical distribution network in Illinois is a smart thing to do. The conflict is over how much it will cost consumers like you and me.

For a hundred years, electric utility companies have simply produced the electricity and pushed it out a distribution system and into our homes and businesses. The system has worked well, but it is a dumb system, that is, the utilities have not been able to receive any feedback from their distribution network. If a tree falls onto the lines and cuts power, for example, you and I who notice this have to call the power company before it knows about the outage.

In an era when smart phones will tell you instantaneously about all the restaurants within a mile of where you and your phone are located at any moment, so too can utilities now receive feedback about where outages occur and about where energy is being wasted.

Experts estimate that less than half of all electric power generated in the U.S. actually reaches customers. “Vampire power” is electricity burned by appliances that are plugged in but not being used, and it devours about 10-12 percent of all electricity. “Phantom power” goes to vacant office buildings and homes where the power was never turned off after the last tenant left, and it sucks up lots of electricity.

We all pay for this wasted power through electricity rates that are set by the Illinois Commerce Commission. But with a smart grid, the wastage can be reduced dramatically. And power usage can be read without the expense of regular visits by your friendly meter reader.

In addition, customers can save on their bills by monitoring their own electric use and by seeing how much they are paying at different times of day. For example, doing the laundry before bedtime when the charge per kilowatt is low makes sense, rather than during the middle of the day when electricity costs the electric distribution utility—and thus the customer—so much more.

Utilities must plan for “peak power” demand, usually in the middle of brutally hot days, even though this peak power is needed for only 20-30 hours a year. If the peak power load could be reduced by, say, 5 percent, I am told that utility bills can be cut by 20 percent. And we wouldn’t need to build additional hugely expensive nuclear, “clean coal” or old-style, heavily polluting coal plants.

If the smart grid is built, “it would make Illinois a world center of innovation,” according to David Kolata, head of the Citizens Utility Board (CUB), a watchdog group.

So everyone wins from the smart grid, or so the thinking goes. But after more than a year of wrangling, the major Illinois distribution utilities—Commonwealth Edison and Ameren—and the “watchdogs”—CUB, Attorney General Lisa Madigan and Gov. Pat Quinn—are still at loggerheads over a bill the legislature passed narrowly this spring. Quinn has promised to veto the legislation.

The issue is all about money.

[The political game of utility rate setting work as follows: the utilities go before the Illinois Commerce Commission (ICC) and request rate increases of X millions of dollars. Generally, the ICC board knocks this amount down to Y millions, which the utilities expect, although they are not certain of the amount they will get.

[The ICC looks at rate of return to the utility companies, among other factors. The companies want to maximize this, of course, because they answer to investors. In return, however, for a lower rate of return than a company in the competitive free market might earn, the monopoly power distributors are pretty well guaranteed a decent profit.]

In the legislation on smart grid before the governor, the utilities would be guaranteed annual increases in rates of 2.5 percent for three years to pay for installing the smart grid, and no limits on rate increases after that for several years—without the necessity of having to make their case before the ICC.

State senator Mike Jacobs (D-East Moline), sponsor of the legislation, downplays the rate increases, declaring that, “With a smart meter, consumers will save more money than their bills might go up.”

Based on a pilot project in which a smart grid was established in a small number of Illinois communities, the watchdog CUB estimates that the smart grid would pay for itself in five to seven years, so maybe increases in rates to consumers would not be needed.

If the sponsors of the smart grid bill find they lack the votes to override the governor, I predict the utilities and watchdogs will reach agreement on a compromise bill. The compromise would put the rate decision-making back in the ICC’s court,

possibly with some initial increases guaranteed by the new legislation to be adopted in the fall veto session. After all, the smart grid is too good an idea to let slip away.