



# Smart Grid, Smart Meter, Smart Savings for Cook County Residents

Cook County residents are receiving new smart meters from ComEd, and the Cook County Department of Environment and Sustainability wants you to know about your new meter and the ways you can help the environment while saving energy and money.

Cook County Board President Toni Preckwinkle has committed to reducing greenhouse gas emissions in Cook County by 80 percent from 2010 baselines by 2050. Based on this commitment, the Department of Environment and Sustainability promotes energy efficiency throughout the County and is now educating residents on the smart grid.

In 2011 the Energy Infrastructure Modernization Act, also known as the “Smart Grid Bill,” was passed by Illinois legislature to enable electric utilities ComEd and Ameren to modernize the electric grid.

The new smart grid is an important part of infrastructure modernization and will provide high-tech electricity distribution while reducing our carbon footprint. It is a more efficient delivery system that will reduce the length and amount of power outages, provide more detailed information on individual energy usage to customers, enable new pricing programs for customers interested in saving money by using energy smarter and increase the availability of renewable energy.

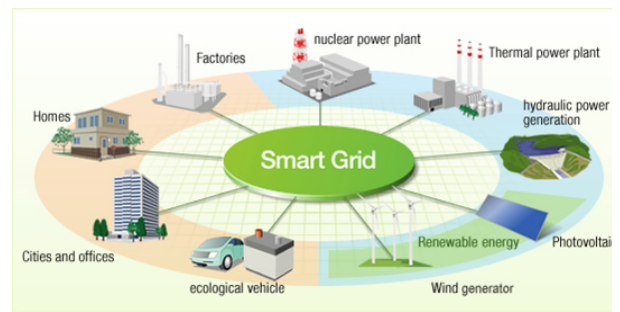
**To get started, check out the FAQ below:**

## What is the grid?

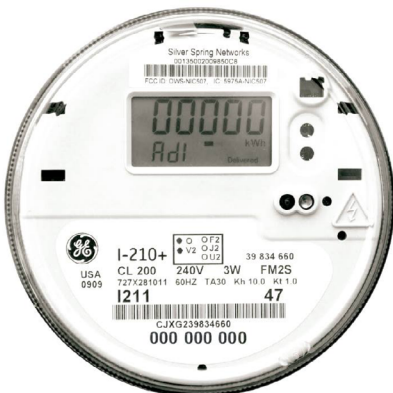
The electric grid is the network or system of lines and equipment that delivers our electricity. Energy is generated from a variety of sources using non-renewable fossil fuel like coal, or renewable energy like wind. This energy is put on the grid, which transmits it to our homes, schools, businesses – anywhere that uses electricity. This grid system has changed very little in the past hundred years, but in 2011, the Illinois Energy Infrastructure Modernization Act started the state’s transition to “smart grid” technology.

## What is a smart grid?

The smart grid is a technologically enhanced power grid that responds better to electricity demands. It is considered “smart” because it enables two-way communication between you and your electric company so they know if there is an issue getting electricity to you, and you can know more about your energy usage. The information about personal energy use helps anyone who wants to be more energy efficient and save money doing so.



## What is a smart meter?



New digital smart meters are being installed to communicate wirelessly with the new digital grid to let you and your electric company know how much energy you’re using. This wireless communication eliminates the need for estimated bills and meter readers on your property.

This information about your energy consumption that is now available gives you the power to understand how and when you use energy. By signing up for high usage alerts and emails that summarize your daily usage, along with other online tools, you can take steps to guide your energy use and reduce your electric bill.

## What are the benefits of the new smart grid?

### Fewer and shorter power shortages

Currently, the electric company doesn't know there's a power outage until it's reported by customers. Even then, it's difficult to pinpoint exactly where the problem is. But the new smart grid is able to communicate directly with the utility provider through wireless communication. It can prevent outages by recognizing when equipment needs replacement, immediately identifying power outages that do occur and quickly rerouting and restoring energy before the outage spreads.

### New technology gives us more individual control over how we use energy

Smart meters provide us with more information on when and how we use the most energy. Taking advantage of this information, especially using online tools, enables us to monitor our consumption habits and make changes that can help save energy and save money. When an appliance is plugged in, even though it may be "off," it is still pulling in a flow of electricity or "vampire energy". Advanced power strips and programming appliances to power down at a scheduled time can reduce energy consumption and save money.

### New pricing plans available to customers

Because the smart grid and smart meters can communicate more detailed information about when and how we use energy, new programs are being offered to reward customers for using energy smarter. (See "How can I save money using a smart meter?" FAQ below)

### More efficiency and fewer wasted costs

Because the old grid is outdated, it is also less efficient – and this cost gets spread out to all of us. The new grid will be able to detect wasted or stolen electricity that would otherwise be unaccounted for, which saves everyone money.

### Health

Energy generation from non-renewable sources creates pollution, which can cause and worsen many health conditions like asthma, heart disease, stroke and lung cancer. The more we can reduce our greenhouse gas emissions by conserving energy and incorporating renewable energy, the better our air quality and health will be.

### Economy & Workforce Development

When people make simple changes to save money by reducing our residential and business energy consumption, there is more money to put back into the economy in other ways. The new technology of the smart grid opens a market for entrepreneurs interested in developing new technology devices, and the smart grid itself opens a new field of high-tech job opportunities.

### Energy Independence

The smart grid incorporates technology that supports the expansion of electric vehicles and new pricing options can benefit individuals charging electric vehicles overnight when electricity rates are lower. Increasing the practicality and popularity of electric vehicles can help reduce our need for foreign oil while reducing car pollution.

## How is the smart grid better for the environment?

The smart grid makes it easier to connect renewable energy sources to the electric grid. Individual customers, businesses or municipalities who produce their own small-scale wind or solar power can sell it back to the utility. This reduces greenhouse gas emissions and our dependence on fossil fuels.

Providing rebate incentives to reduce energy usage at peak demand times may make it unnecessary to turn on the heaviest-polluting backup generators that are reserved for emergency use on those hottest summer days. If people are not using as much energy during peak demand, we can avoid the heaviest pollution because there will be enough energy supply without needing the backup generators.

Additionally, the smart grid helps meet growing demand for electricity while limiting the need to invest in new power plants. Since people can choose to reduce their energy usage to save money, and because less energy is wasted with the more efficient grid system, less energy needs to be produced, which reduces the amount of pollution emitted from power plants.

## When will my meter be installed?

You may have a smart meter already! If not, ComEd is working to complete meter installation in Cook County through 2018. Visit [www.smartpowerillinois.org](http://www.smartpowerillinois.org) to determine when your town will receive smart meters.

ComEd will notify you with a phone call, information in your monthly bill and a door hanger at your house prior to installing your new meter.

- It is important to make sure that the meter installer has access to your meter and any inaccessibility is addressed prior to their visit (i.e. locked gates, guard dogs, shrubbery).
- If they are unable to install the meter after three attempts, you will see a fee on your bill each month that the new meter is not installed.
- ComEd meter installers will always be able to provide proper identification and will never ask to see your electric bill when installing your new meter.

## How can I find out if I already have a smart meter?

Once your smart meter is installed, the meter number on your bill will have nine digits and begin with a two. If you are looking at your meter, new meters will have digital numbers and a sticker that says Silver Spring Network near the top bar code. If your smart meter has not yet been installed, your analog meter will have moving dials that look similar to a clock face.

## How can I save money using a smart meter?

Electricity costs can change from day to day, hour to hour and even minute to minute. When more people are using electricity during 'peak times' (often between 2 pm and 7 pm), the cost of electricity can be higher. Today, most Cook County residents are unaware of this because most of us pay a flat rate for each kilowatt-hour of electricity used, no matter the time of day. This system increases the chance that residents will pay more for electricity, since we tend to use more electricity during expensive times and do not react to the price differences.

Smart meters give Cook County residents the opportunity to sign up for pricing programs from ComEd including Peak Time Savings and Hourly Pricing, which reward customers who reduce their electricity usage when costs and demand are high. With a smart meter, consumers have access to their electricity usage information 24/7, and more information means more control over costs.

### Peak Time Savings

- People who sign up for ComEd's Peak Time Savings program will be able to earn a credit on their bill if they voluntarily reduce or delay heavy power usage on certain summer days when energy is most in demand.
- There is no cost to sign up and no penalty if you do not reduce usage, making it a risk-free program.
- The more people who sign up and reduce their power usage at the most expensive peak times, the more the cost of electricity is driven down overall for everyone.
- You cannot earn Peak Time Savings rebates if you already participate in AC Cycling or Net Metering.

To sign up and participate immediately in the Peak Time Savings program, call (844) 852-0347 or go to [www.comed.com/PTS](http://www.comed.com/PTS) for more information.

### Hourly Pricing

- People who sign up for the Hourly Pricing program can save money by shifting heavy electricity usage to times when demand is low, paying lower rates during these times (early mornings, evenings, overnight and weekends).
- Customers who shift heavy energy use away from "peak," high demand daytime hours have the potential to save over 15% on their electric supply costs.
- If you live in a community with municipal aggregation you will need to choose between hourly pricing and municipal aggregation fixed rates.

To find out if Hourly Pricing is right for you, call (888) 202-7787 or go to [www.comed.com/hourlypricing](http://www.comed.com/hourlypricing) for more information.

## What is a smart thermostat?

Smart thermostats are devices that connect to Wi-Fi and allow remote control of heating and air conditioning settings in homes through smart phones, tablets and computers. They can help increase comfort, convenience and control over energy usage. Residents across northern Illinois are eligible for significant rebates on smart thermostats that can cut in half the cost of the device through December 31, 2017. As of June 1, 2016, there are eight different smart thermostats that qualify for up to \$175 in rebates for customers that meet the eligibility requirements.



Smart thermostats have been found to reduce energy use for home heating and cooling by an average of 8-15 percent, according to ACEEE 2015. That translates to \$50-\$130 annually for the average Illinois customer, according to the Environmental Law & Policy Center. Visit [elpc.org/smartthermostatsinfo](http://elpc.org/smartthermostatsinfo) to learn more about smart thermostats.

## What are other energy efficiency programs I can participate in to save money?

**[Elevate Energy Home Energy Improvements- Energy Impact Illinois](#):** Receive an in-depth energy assessment from a contractor. Discover what upgrades will benefit you the most and save up to \$400 a year.

**[Illinois Home Performance with ENERGY STAR](#):** Homeowners achieve increased comfort and value of their homes through a whole home energy upgrades, sponsored by Illinois Department of Commerce & Economic Opportunity. Achieve 15% energy reduction and receive a certificate documenting your investment and energy savings.

**[ComEd Home Energy Assessment](#):** Energy advisors install free energy-efficient products in your home and give tips for next steps.

**[Nicor Gas energySMART Energy Assessment](#):** Energy advisors install free energy-efficient products in your home and give tips for next steps.

**[Peoples Gas Home Energy Jumpstart](#):** Energy advisors install free energy-efficient products in your home and give tips for next steps.

## For energy-saving tips, visit the following resources:

**Citizens Utility Board**  
**Midwest Energy Efficiency Alliance**  
**United States Department of Energy**

## For more information on the smart grid and smart meters, please visit:

**Smart Power Illinois:** [www.smartpowerillinois.org](http://www.smartpowerillinois.org)  
**Citizens Utility Board:** [www.citizensutilityboard.org](http://www.citizensutilityboard.org)  
**Elevate Energy:** [www.elevateenergy.org](http://www.elevateenergy.org)  
**Cook County's Sustainability Blog:** [blog.cookcountyil.gov/sustainability](http://blog.cookcountyil.gov/sustainability)  
**Smart Power Illinois Youtube Channel:** [tinyurl.com/ngdfzk5](http://tinyurl.com/ngdfzk5)

## Or contact the Cook County Energy Efficiency Community Outreach Coordinator:

**Email:** [environment@cookcountyil.gov](mailto:environment@cookcountyil.gov)  
**Ph:** (312) 603-3459

Have you saved money and reduced your energy usage with your smart meter? Share your story with us for a chance to be featured on our sustainability blog! Email us at [environment@cookcountyil.gov](mailto:environment@cookcountyil.gov) or call (312) 603-3459 for more information.