

WHAT THE FUTURE HOLDS

Leading the Way in Building a 'Smart Grid'

Manager's Column



Tim Stewart
CEO / General Manager

The cost of rising energy prices is certainly on everyone's mind these days. Just about every periodical or news broadcast talks about the energy issues such as energy efficiency, green power, and smart grid technologies

As you are probably aware, the federal stimulus package and various U.S. Department

of Energy (DOE) initiatives are promoting development of a "smart grid" to help solve America's energy crisis. In addition, DOE Secretary Steven Chu declared our nation's electricity transmission and distribution system a national priority this spring.

You may wonder what this means for you as an electric co-op member.

The electric grid that covers our nation is, quite literally, the largest machine ever built and includes millions of miles of transmission and distribution lines that deliver power from generating stations to your front door.

Contrary to popular belief, the grid isn't unintelligent; it has sustained us for almost a century, keeping electricity safe, reliable, and affordable. But the grid is similar to a high school graduate who heads off for college. There's a lot of room for learning. I would like to discuss two components of smart grid: smart metering and load management.

The first step toward building a smarter grid involves installing a strong foundation of smart meters at homes and businesses that can talk back and forth to utilities about system conditions and electric use.

According to the National Rural Electric Cooperative Association (NRECA), 70 percent of the nation's co-ops have installed some form of a smart meter, and

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Introducing... E-Bill

Clark Electric has made two new changes that will benefit the members tremendously. Starting July 1, Clark Electric members will have another way to pay their electric bill with our new E-Bill pay option.

The E-Bill option has been made possible by the updated and enhanced web pages the cooperative has just launched.

To begin using the E-Bill option, go to our web site, www.cecoop.com, and click on the E-Bill tab on the top. The rest is simple.

New Web Site Design

The new web site offers a host of information about your annual meeting and information pertaining to other parts of the cooperative. A tab that's devoted to energy information includes news about energy efficiency, renewables, and energy-efficient lighting. Another tab lists our programs and services and provides information about load management, electric heat options, and water heaters.

The Appliance & Satellite Division has its own tab with a wealth of information on its services and products.

Go take a look and see what your cooperative has to offer. ■

www.cecoop.com



Highlights of Rural Safety Days

Schools from Throughout Clark County Participate

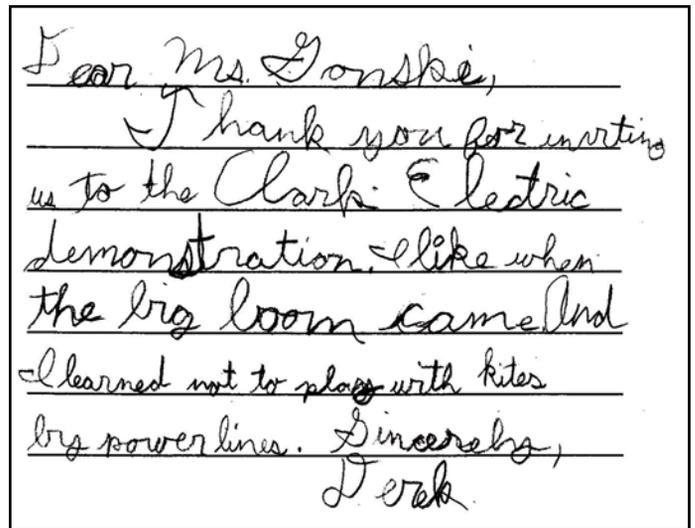
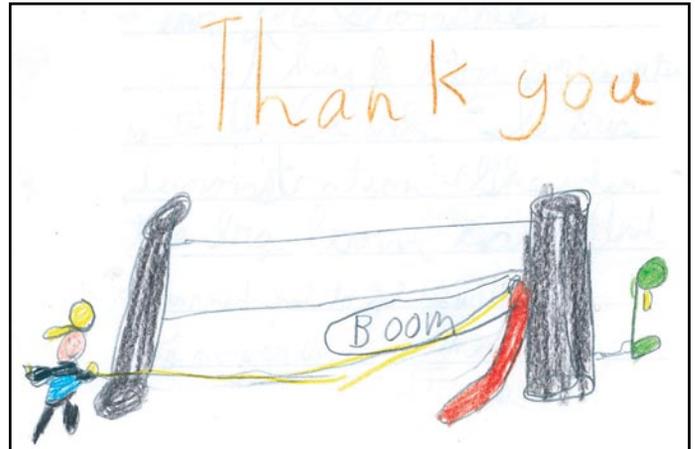


John Knox, director of member services, talks to the children during Rural Safety Days.

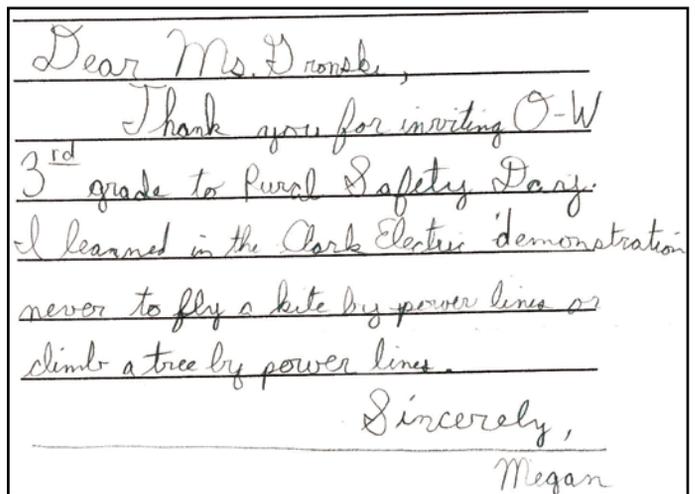
Explaining the dangers of electricity is a very important part of our job here at Clark Electric. Teaching electrical safety to area schoolchildren is fun and rewarding, as you can see by the accompanying letters.

John Knox, director of member services, and Scott Bailen, lineman, attended Rural Safety Days in Neillsville, which is hosted by Clark County UW Exchange with local FFA high school students who help to run

the event. This year approximately 350 third- and fourth-graders from schools throughout the county participated. Besides learning about electrical safety, the students learned about tractor, ATV, and gun safety as well as safety with other summertime activities. ■



Two of several cards from the children who attended the event show the students were paying attention and understood the importance of our message.



Smart Metering

(Continued from page 4)

another 11 percent will join them in the next year. This is important when you consider co-ops own and maintain 2.5 million miles of distribution lines, delivering power to 12 percent of American homes. In comparison, a recent Federal Energy Regulatory Commission (FERC) report showed only 2.7 percent of investor-owned utility customers have smart meters.

You may recall an earlier article in the *Wisconsin Energy Cooperative News* entitled "Co-ops Lead in Metering Technology." At the time, we were discussing some of the provisions of the 2005 Energy Bill. Here we are in 2009 with the stimulus bill, which in part addresses the opportunities of a "smart grid." The article stated that the 2005 Energy Bill required that the Federal Energy Regulatory Commission (FERC) prepare an assessment of electric demand response resources. The legislation specifically called for a look at advanced metering and communications, existing demand response programs, and the potential of demand response to capture energy

savings for purposes of planning to meet infrastructure needs. The report found that electric cooperatives lead other industry sectors in deploying smart meters and related automation devices, creating an advanced meter infrastructure inside the grid. Further, it found Wisconsin to be a leader in advanced metering use. In fact, Wisconsin ranked second nationally in terms of advanced metering market penetration, with 42 percent market share.

I am pleased to note that Clark Electric Cooperative is well ahead of the curve in terms of both advanced metering and demand side response programs and has been for some time. In terms of demand response resources, Clark Electric Cooperative has been utilizing load management for more than 25 years to help ease load requirements over peak periods of electrical demand. Our load management program helps in the utilization of generation and transmission resources and saves all members money. Last year alone, our load management system saved our power supplier more than \$7.4 million.

In terms of advanced metering, Clark Electric Cooperative began

deployment of Hunt Technologies Turtle 2 advanced metering system in 2005. We have currently deployed the technology to more than 99 percent of the system.

To me, these two examples are typical of cooperatives' approach to business. While other utilities throughout the nation are just starting to embrace these initiatives and smart grid programs, we've been focusing on serving our members effectively. Undoubtedly new technologies and applications will appear. The grid will become smarter. We will continue to support innovative technologies and pursue opportunities that make economic sense, allowing us to continue providing you with safe, reliable, and affordable power in the years to come. ■

News From Dairyland Power



Clark Electric Director Clarence Hoesly has been elected to Dairyland Power Cooperative's Board of Directors. Clarence was elected by the DPC board to serve on the Executive Committee as its treasurer.

Clarence has been a director at Clark Electric since 1998 and is currently the cooperative's secretary/treasurer. ■



DIGGERS HOTLINE

ALWAYS CALL
BEFORE YOU DIG



For outdoor projects that may require any excavating, contact Diggers Hotline to make sure all underground lines or cables have been located. Diggers Hotline is a not-for-profit company that helps you find the location of buried utility lines that may interfere with your excavation project.

State law requires that you contact Diggers Hotline, either by phone or online, three working days before you disturb the soil. You can make an online request to Diggers Hotline at www.diggershotline.com. ■

Diggers Hotline

**Wisconsin's
One-Call Center**

**CALL 811 or
800-242-8511**

**877-500-9592
(Emergency only)**

Summer Storms... Be Prepared

Safety First in Restoring Power

While not all power outages can be avoided — such as when Mother Nature decides to intervene — the impact can be diminished. As we all know, storms in Wisconsin can be especially severe and cause brief outages. So, you may wonder how power is restored.

The short answer is, as a member of Clark Electric Cooperative, your power is extremely reliable. This is something we are very proud of because day in and day out, we work hard to maintain exceptional levels of reliability. There aren't any shortcuts to achieving reliable power. It's labor, time and capital-intensive — and it's an area of our business in which we can't afford to cut corners or expect anything less than near perfection.

Restoring electric service is a logical process. The diagram below shows a simplified version of a large-area outage. Our linemen start from the substation out onto the main feeder lines. It would be useless to

repair a pole if the main lines were not energized. Once there is power at the substation and the feeder lines have been repaired, the next lines to be repaired are the tap lines off the three-phase feeder lines. The last lines to be repaired are the single-service outages. Simply stated, in general the lines that will get the most services energized in that particular area are repaired first.

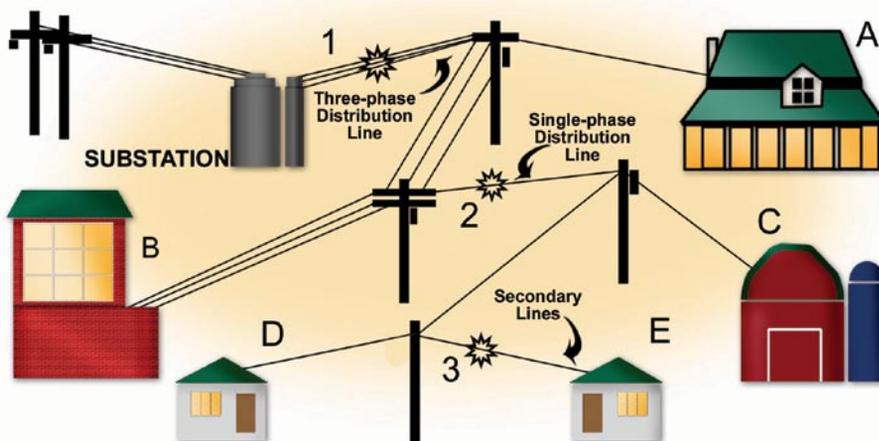
How the Process Starts

Clark Electric Cooperative utilizes the services of the Cooperative Response Center (CRC) to answer our telephones after normal business hours and/or during very high-volume telephone traffic. CRC is best equipped to handle the large amount of calls that will be received during a large-scale outage. Members may be greeted by an automated attendant that will prompt you through the steps necessary to report your

outage condition. By allowing CRC to answer incoming calls, we are able to concentrate on getting service restored as quickly as possible.

What Happens in the Event of Extreme Outages?

Clark Electric Cooperative has executed a mutual aid agreement with other electric cooperatives throughout the country. You may recall that in September and October 2005, our crews, along with approximately 1,000 other line crews, helped restore power to Washington–St. Tammany Electric Cooperative in Louisiana. More recently, we helped cooperatives right here in Wisconsin restore power after severe storms affected much of their service territory. So, while we can't prevent all power outages, we stand ready to respond as needed, when needed. ■



 Tim Stewart, CEO/Manager
John J. Knox, Editor
124 N. Main Street
P.O. Box 190
Greenwood, WI 54437

Your Touchstone Energy® Partner 

e-mail us at info@cecoop.com or at jknox@cecoop.com
WWW.CECOOP.COM