



**WESTERN
COOPERATIVE
ELECTRIC**

A Touchstone Energy® Cooperative 

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WESTERN COOPERATIVE ELECTRIC NEWS

FROM THE MANAGER

Cooperative Strength in Numbers

You've probably heard the saying, "There's power in numbers." Cooperation is a keyword for electric cooperatives, and a concept vital to our form of business.

Member-owned cooperatives like Western Cooperative Electric operate under seven key principles, including the Sixth Cooperative Principle, "Cooperation among Cooperatives." In short, electric cooperatives serve their members best while strengthening the overall cooperative movement by working together.

At the most basic level, electric cooperatives support one another in times of crisis. If a storm or other disaster hits one of our sister cooperatives, we offer whatever help we can to ensure service is restored as quickly as possible. In turn, when we need help, our electric cooperative "family" is there for us as well.

Western also collaborates with other cooperatives to better serve you, our members, and the communities in which we live and serve as well via safety programs, youth tour contests, rural development loan and grant programs, energy efficiency education and incentives, and economic development to name a few.

When it comes to local and

statewide issues, electric cooperatives in Kansas join forces through Kansas Electric Cooperatives, Inc. (KEC), our statewide service organization. The results show that when small organizations such as electric cooperatives use the power of aggregation, efficiency and economies of scale become reality. Basically when working together, good things happen!

KEC's lobbying efforts provide Western with "the power of numbers," giving Western a louder voice at the state capitol on issues that impact you, the member-owners of Western. Western also works with KEC's communications department to provide, for example, economical printing and production of this amazing publication!

Nationally, Western collaborates with other electric cooperatives through the National Rural Electric Cooperative Association (NRECA), the Arlington, Virginia-based national service organization representing more than 900 member-owned, not for-profit electric cooperatives, public power districts, and public utility districts in the United States. NRECA presents a unified consumer voice, particularly through the Cooperative Action Network, a grass-

roots movement among electric cooperatives and their members urging lawmakers to create legislation that's in the best

interest of electric cooperatives and their member-owners all across the United States. Not only does the organization have the ears of Washington, D.C., decision-makers, it also represents cooperative interests before federal regulatory bodies. Through NRECA's Cooperative Research Network, Western receives information about new technologies that helps us control costs, improve productivity, and deliver reliable, affordable service safely to you.

Western is committed to providing you with the very best service at the lowest-cost possible. When we pool our resources and work cooperatively, we can offer you, our member-owners even greater value. In addition, adding our Western voice to the grand chorus of fellow cooperatives, our message to legislators rings even louder and more clearly. That's the cooperative difference.



Darrin Lynch

Comparing Radio Frequencies

How strong is the radio frequency (RF) exposure from a smart meter one yard away outside of your home? Just **0.000015 milliwatts per square centimeter** (mW/cm), much lower than other common sources!*



The natural RF from the human body is **20** times greater (0.0003 mW/cm).



A Wi-Fi signal emits an RF that's **67** times greater (0.0010 mW/cm).



A microwave oven RF is **313** times greater (0.0047 mW/cm).



A cell phone next to your head emits an RF that's **12,667** times greater (0.19 mW/cm).



Source: Dr. Yakov P. Shkolnikov, Ph.D., Central Maine Power

*Based on the FCC average exposure standard (47CFR1.1310), which averages exposure over 30 minutes of use.

Advanced Meter Infrastructure: Myth or Fact?

Technology used by utilities continues to evolve. Methods of measuring electrical usage have become more intelligent, as a result. Disappearing are the old electro-mechanical meters, making way for modern digital electronic meters and support structure and allowing for more than just reading a members' electricity usage in their homes. It helps keep the lights on, lowers energy costs, and promotes energy independence.

Western Cooperative Electric and the new Gridstream Advanced Meter Infrastructure (AMI) system (from Landis + Gyr) will help keep the lights on by replacing aging meters, allowing for more efficient operation of the system. That, in turn, helps decrease brownouts, blackouts, and surges.

The meters will also work in conjunction with equipment on the lines and in substations to make sure that members receive reliable and consistent power. When there are issues, Western will be able to more readily identify, troubleshoot, and remediate the causes, restoring power more quickly.

AMI can help you lower your energy costs simply by providing you with up-to-date usage information which, in turn, can show you when best to operate energy-intensive appliances and tools, typically during low demand periods of the day. When you shift your usage to lower demand times of the day, it costs Western's power providers, Sunflower and Mid-Kansas, less to produce the power you consume, resulting in savings to you. You will know, to the hour, what you are using or have used, mitigating surprises on a future electric bill.

The AMI system also alerts Western of power outages and their loca-

tions immediately, often times before the member even realizes there is an issue, and then corrects it quickly, safely, and efficiently.

Energy technology helps us maintain wise use of domestic resources today. As with any new technology, misunderstanding of its purpose and abilities can lead to the birth of urban legends about its capabilities, good or bad. The implementation of AMI meters throughout the country is no exception. Following are some of the more common myths associated with AMI, or "smart" meters:

Myth: Smart meters are less accurate than analog (electro-mechanical) meters.

Fact: All meters are tested before leaving the plant, and manufacturers are required by public service commissions to supply test results. Western receives these test results, as well as doing our own testing in the field.

Myth: Smart meters are a health threat due to the Radio Frequencies they use to communicate.

Fact: The radio frequency (RF) emitted by the meter is well below what the Federal Communications Commission "FCC" has set as a limit for such waves. It is below the levels produced by common devices used throughout your daily routine at home or the office, including cell phones, baby monitors, satellite TVs, microwaves, and wireless routers. To help place into perspective how much actual RF is emitted from a smart meter, you would have to be exposed to the RF from a meter for 375 years to get the same dose of RF that you would get from using your cell phone 15 minutes per day for just one year.

Myth: Smart meters will not keep your personal information secure.

Continued on page 16-D ▶

The Race is On—Get Involved in Kansas ElectroRally

A narrow ribbon of asphalt winds through a gently rolling, tree-shaded park as determined Kansas high school students utilize brains, brawn, and teamwork for a chance to win a long-anticipated Kansas ElectroRally race. Tracks differ during the racing season, but the goal remains the same as teams vie for the fastest speed to travel the greatest distance, racing records and trophies for their respective schools. Building more than competitive race cars and teams, ElectroRally participants build knowledge, confidence, friendships and futures—far greater in value than a winner's trophy.

The Kansas ElectroRally is an organization that hosts racing competitions each year primarily for Kansas high school teams that design and build lightweight, efficient electric vehicles.

Although some schools' ElectroRally car programs are carried out as part of class curriculum, other programs involve students' implementing their car modifications during after-school work sessions. An actual race is the testing ground for the students' problem-solving strategies to improve their cars' performances.

The races do not involve cars that fly around tracks at breakneck speeds or drivers that win lasting fame and fortune. Rather, the drivers quietly log laps around Kansas race courses in aerodynamic, high-efficiency vehicles powered by battery packs, some supplemented by solar panels.

Rewards consist of plaques, certificates and, occasionally, a mention in a local newspaper or yearbook. The students' efforts earn them intangible rewards, too—growth in leadership, problem-solving, mechanics, physics, engineering, math and communication skills through an integrated curriculum

The ElectroRally is a rare opportunity for students to integrate knowledge from both core and elective courses and demonstrate their skills in a competitive environment.

that often fosters decisions about future career paths.

It is no surprise that students' working together on their ElectroRally cars results in even more positive outcomes. "Among ElectroRally participants, I have witnessed a great deal of team spirit and pride," said Dennis Deines of Western, a sponsor of ElectroRally events. "Team competition creates excitement and enhances camaraderie."

Although the ElectroRally cars seem simple in construction, students design and retool them so that the team accomplishes two goals—speed and efficiency. The winning team's driver completes the most laps in one hour, so the driver's strategy to conserve battery power is essential to win the race. Since the beginning of the program, students' ingenuity in modifying their cars has produced notable results: an average speed of 30 mph and distance of 25 miles traveled in one hour, results that are made possible through collaborative efforts of team drivers, lap counters, race chiefs, crew chiefs and battery technicians, all who bring their talents to the table during the construction and design of their high-tech cars.

"The ElectroRally is a rare opportunity for students to integrate knowledge from both core and elective courses and demonstrate their skills in a competitive environment. What's unique is the

fact that students can evaluate their performance, retool, and rebuild to be more competitive multiple times to improve their performances.

That's just not possible in a typical classroom," said Chris Dinkel, Hays High School ElectroRally coach. "As information, knowledge and skill requirements continue to grow exponentially, learning opportunities must also keep pace to meet these demands. The Kansas ElectroRally offers students the type of learning experiences that mirrors the knowledge and skill sets required to be successful in an environment that is in constant flux."

Startup costs for schools' participation in ElectroRally races vary, depending on the materials and mechanical parts used. For example, cars fitted with aluminum, chrome, tubing, round stock or fiberglass can be built from the ground up or can be purchased as kits. Controllers and mo-

Continued on page 16-D ▶



The Race is On

Continued from page 16-C ▶

tors can come from electric wheelchairs, forklifts or online vendors. To offset cars' costs, which the Kansas ElectroRally organization suggests should not exceed \$2,000, teams rely on local fundraisers and sponsorships from organizations, many of which are involved in the electric industry.

Also key to an electric car program is a willing coach. No specific degree or certification is required; in fact, coaches often come from diverse educational backgrounds, including math, science and agriculture. Coaches, along with their students, reap personal rewards from their involvement in the electric car program.

"Knowing that as a professional educator I am providing a student with a proven path for success is really satisfying. This program has impacted young lives, and there is a life-long connection to those students," said Dinkel.

This year, a total of five Kansas ElectroRally races are planned in Beloit, Scott City, Hays and Wichita.

Kansas ElectroRally racing slots are open to any organization complying with event and vehicle regulations. Race eligibility requires a car built to certain specifications; the completion of a vehicle registration form with Electrathon America, the national organization that sanctions races that take place throughout the United States; and knowledge of Kansas ElectroRally's racing and safety rules.

Those interested in more information about the Kansas ElectroRally program can contact Dennis Deines, Western member services manager at 800-456-6720 and/or dennisd@westerncoop.com or Nikki Pfannenstiel, Sunflower member services manager, at 785-623-3334 and/or npfannenstiel@sunflower.net. Information is also available on the Kansas ElectroRally website, www.kansaselectrorally.org.

AMI: Myth or Fact? Continued from page 16-B ▶

Fact: The same technologies used by banks, credit card companies, and cable providers is used to protect your information, all the way from the meter to our office. Online data access is encrypted, in the same manner as a bank's, enabling you to securely access your account to view your usage and pay your bill online.

Myth: Smart meters increase the risk of fires.

Fact: Meters must meet the safety requirements and standards spelled out in the National Electric Safety Code (NESC), and public service commissions require independent certification that proves the meters are safe and resistant to heat, fire, voltage, surges, and self-heating. In addition, meters are only installed, serviced, and uninstalled by qualified personnel.

Myth: Smart meters invade my privacy.

Fact: Smart meters are digital measuring tools used to measure your usage throughout the day, not how you use it. Unless you install a home energy management system, a meter cannot tell the difference between a clothes dryer or popcorn maker while it is using power; all a meter sees is how many kilowatts you are using

over time. Information gathered is used to create your bill. Any personal information needed, such as address, phone number, etc., is regulated by strict state and federal policies.

Myth: Smart meters provide no benefit to consumers.

Fact: Smart meters are capable of providing the consumer with near real-time energy usage information about how much, when, and even at what rate, it is used. This information can be used by the consumer to better utilize power in their homes to save money. Additionally, power outages are detected quickly, and more efficiently restored, with the information provided by the meters and their supporting infrastructure. Those consumers that currently read their own meters will no longer need to do so as well.

Once armed with the facts, AMI or "smart" meter myths are just that... myths. AMI technology has proven to provide benefits and pay for itself rather quickly, though it is no doubt a fairly large undertaking. As always, if you have any questions or concerns, please feel free to call Western at 800-456-6720, stop by our office in WaKeeney, or email us at western@westerncoop.com.

Western's Payment Options

Western's members can now make payments through our website or by phone using a credit card or electronic funds transfer. To pay by phone, call our automated service at 800-330-1025, or call our main office to speak with a Western employee.

Through our website, you can also view your account, or enter your meter reading. You will have to set up a login and password the first time you do the online services. You will be prompted to enter your base account number and meter number.

All of these services are available at our website www.westerncoop.com.

