

## From trial size to supersized: Solar surges in rural communities

By Tracy Warren

Five years ago, many in the electric industry viewed solar energy as a “boutique” resource—more an energy accessory than a real power supply option. But in the last half-decade, as the costs to install solar went down and electric utilities gained experience with this unique energy resource, there has been a dramatic transformation, and solar energy has made the jump to the big leagues.

At local electric co-ops, consumer-members were asking questions about whether this new technology would be suitable either for their home or for the co-op.

Given the high cost to install solar, electric co-ops had questions about the economic feasibility of solar and its effect on the electric system. Even with federal tax incentives, the cost of solar was not competitive with other resources such as wind and natural gas.

Engineers also had questions. What happens to the system when the sun doesn't shine? Or even more tricky: what happens on those days when multiple clouds sail by, making a strobe light out of the sun?

To answer these questions, co-ops started installing small arrays to analyze cost and efficiency. Five years ago, compared to other resources, many concluded solar was still too expensive.

The cost of panels and equipment was not the only reason solar was expensive. There were also soft costs, like training, business processes and software. There was little standardization among solar projects—every project was unique. Engineers and resource planners unfamiliar with this technology needed training and technical assistance.



Financial partners still needed convincing when it came to investing in large-scale solar projects.

As the solar industry started growing, thanks in part to tax credits and other incentives, the cost of solar panels and other equipment started declining; the economics started changing.

In 2014, 17 electric co-ops joined their national trade organization, the National Rural Electric Cooperative Association (NRECA), to collaborate on solar installations in 10 states whose combined solar capacity would be 23 megawatts. The goal of the project was to make solar more affordable for electric co-ops by driving down the soft costs.

The project, which received funding from the Department of Energy, aimed to create a network of experts within the co-op community. By sharing info and expertise, co-op experts could make solar installations easier and less financially risky for other co-ops to follow suit.

Over the course of this project, the cost of solar fell dramatically. For example, one co-op that built a solar installation at the beginning of the

project compared to another two years later found the cost was cut in half. In 2013, the cost was \$4.50 per watt of installed solar, and in 2016, the cost was \$1.74 per watt.

As more electric co-ops gained experience and shared information about what worked and what didn't, the risks that come with innovation and change also went down. Solar became more doable for co-ops large and small.

With the decline in costs and the increase in knowledge and understanding, solar has taken off in rural communities. The proof is in the numbers. Today, America's electric co-ops own or purchase more than nine times as much photovoltaic solar power as they did in 2013. By the end of 2019, the combined solar capacity of America's electric co-ops is expected to surpass a gigawatt.

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*Tracy Warren writes on consumer and co-op affairs for the NRECA, the national trade association representing more than 900 local electric co-op. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.*

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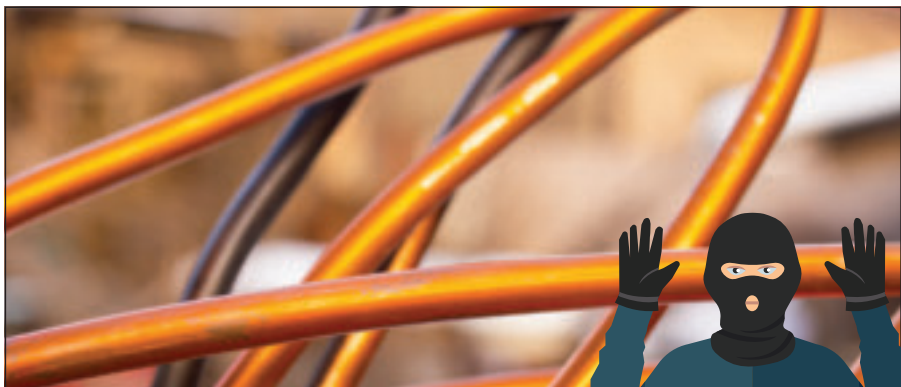
**To report an outage**

- First check your fuses or circuit breakers and see if your neighbors have power.
- If the problem appears to be with the cooperative's lines, call the office at the toll free number (888-661-2632), give the name the service is listed under, and report any hazardous conditions.

Send your current email  
 to [info@cmeccoop](mailto:info@cmeccoop)



for a chance to win a  
 \$25 bill credit.



**Report copper theft**

In the early morning hours of July 7 when most members were asleep, our AMI, Advanced Metering Infrastructure, reported an outage to CRC, a 24-hour Customer Response Center, which contacted us. At the same time, several people were attempting to steal copper from a cell tower site in Coles-Moultrie territory. Due to the quick thinking of our lineman and use of our improved metering systems, we contacted local authorities within 15 minutes. One person was apprehended. This was

the third incident in a week in our service area, and several more were reported in other counties. The rise in the price of copper has directly increased copper theft. Copper is used in the electric and mobile phone industry, delivering valuable service to homes and businesses. If you notice anything suspicious or out of place, call us at 888-661-2632 or notify local law enforcement. Copper theft is a dangerous crime that puts lives at risk, causes power outages and increases the costs of doing business.

**Energy Efficiency**

**Tip of the Month**

Turn off kitchen, bath and other exhaust fans within 20 minutes after you're done cooking or bathing. When replacing exhaust fans, consider installing high-efficiency, low-noise models.

Source: [energy.gov](http://energy.gov)



**Insulation**

Thinking of adding insulation to your home? It can increase a home's energy efficiency, but only if it's properly installed. Visit: [insulationinstitute.org](http://insulationinstitute.org) for more information. Contact [cbradbury@cmeccoop](mailto:cbradbury@cmeccoop) at 217-235-0341 for incentives at Coles-Moultrie Electric Cooperative.



# President & CEO Report – June 2018

See our web site: [www.cmec.coop](http://www.cmec.coop) to review our Monthly Board Meeting Minutes

## Safety

- Pole-top and bucket rescue training was conducted May 30. The entire day was treated as a Safety Day with exercises and drills throughout the day to insure all employees were exposed to their responsibilities and actions in any emergency.
- Federated Insurance conducted a Loss Control Review. All findings were satisfactory and improvements noted.

## PPI Technology Committee Meeting

- CEO Kim Leftwich participated in the committee meeting and presented materials on microgrid/microgeneration project objectives and measurable outcomes.

## Electric Vehicle (EV) Developments

- Staff participated in a webinar with Open Access Technology Inc. (OATI) to discuss EV advocacy efforts and modeling of EV charging infrastructure.
- K.C. Summers Automotive provided an all-electric Nissan Leaf vehicle for display at the CMEC Annual Meeting, another element of CMEC's advocacy.

## Sarah Bush Lincoln Health Services Golf Outing

- CMEC members and staff joined hundreds of other participants at the outing to support charitable efforts to fund development and construction of the new Heart Catherization Laboratory/Clinic. CMEC was beneficiary of "Sharing Success" contributions from CoBank, matching a like CMEC donation.

## Cooperative Finance Corporation (CFC) Forum 2018

- Directors Robison and Shrader and CEO Leftwich attended the CFC Forum 2018 June 10-13. CFC is the primary lender to CMEC and provides multiple training and education opportunities as part of its forum. A complete report on the forum is included in the Board Report.

## Coles-Moultrie Electric Cooperative 79th Annual Meeting

- CMEC conducted its 79th Annual Meeting June 15 at Peterson Park, Mattoon. Activities included a Member Expo tent where business members of the cooperative and other partners exhibited their businesses; an electric vehicle and charging station display; bucket rides on cooperative bucket trucks; and a catered luncheon for all attendees. During the business meeting, director elections and bylaw changes were announced; six scholarships were awarded to CMEC member dependents, and questions were taken from the floor.

## Prairie Power, Inc. Annual Meeting

- Directors Albin, Metzger, and Shrader and CEO Leftwich attended the PPI informational meeting and PPI Annual Meeting of Members on June 20. Director Metzger and CEO Leftwich participated in the reorganizational meeting to elect officers and committee members for PPI for the next year.

## CMEC Connect

- Just as electric service is impacted by severe weather, CMEC internet services have had storm issues as well. Multiple severe storms with high winds and heavy lightning have caused several outages during the spring and early summer months. New software components allow staff to reset from our head end equipment at headquarters instead of having to go to the field, saving considerable time to restore and avoiding costs to roll a truck. Unfortunately, direct lightning strikes can damage equipment even though we have heavily grounded equipment, and field work is necessary.

## Marketing/Member Services

- HomeServe program continues to provide a benefit to CMEC members; a new offering will be out in June; HomeServe participated in our Member Expo at the CMEC 79th Annual Meeting as well.
- The department gave an electric demo/class to the Coles County 4-H group.

- Sam Adair was a chaperone during the Washington, D.C. Youth Tour with over 70 students from cooperatives around the state.

## LED Lighting

- Nearly 2,100 LED security lights have been installed replacing mercury vapor and high-pressure sodium lights.

## Engineering

- Engineering received 552 JULIE locate requests and sought 19 locates.
- 50 report-on-call requests were received (member service requests) typifying the workload that develops as warm weather develops.
- Monitoring of Bruce substation tie-points continues to determine if we can change the transformer and eliminate taking members on Bruce out of service to perform even minor repairs; consulting with PPI and Toth to determine our path forward.

## Operations

- Severe storms over the past several weeks have resulted in many downed trees and broken poles; events were highly unusual – in one instance both CMEC and Ameren poles along both sides of Highway 49 suffered damage and crews worked through the night to restore services.

## IT/SCADA

- In-house staff created a live connection between our AMI and GIS systems permitting a nearly instant service outage map; the application allows field personnel to see outage information in real time permitting improved response times to restore service.

## GIS

- Staff continues to develop features to GIS that give superior access to information contained in our data platform. The features permit highly advanced access for outage and storm assessment leading to enhanced crew direction. As a result, we can anticipate improving response to emergency and outage situations.

# WELCOME

Meet our newest employee:



**Kellie Kastl**

Customer Service Representative

## New Board of Directors Chairperson



Meet Debbie Albin, the new chairperson on our Board of Directors. She has served on our board for 10 years and lives in Mattoon. Debbie has a Master of Science in education from SIU-Carbondale and is the Area Director of Catholic Charities for Coles, Douglas and Edgar Counties. She is looking forward to using her experience in the electrical industry to help our co-op prepare for the future.

# Tips for a Safe Harvest



Harvest season brings hard work and can be an exhausting, but rushing the job to save time can be extremely dangerous (even deadly!) when working near overhead power lines. We urge farm operators and workers to keep the following safety tips in mind:



Use care when operating large machinery near power lines.



Inspect the height of equipment to determine clearance.



Always keep equipment at least 10 feet away (in all directions) from power lines.



Remember to lower extensions when moving loads.



If a power line is sagging or looks to be dangerously low, please call us immediately.

Source: [SafeElectricity.org](http://SafeElectricity.org)



AMERICA'S ELECTRIC  
COOPERATIVES