BY TODD H. CUNNINGHAM

Photo courtesy Mohave Electric Cooperative

Mohave Electric Cooperative is buying into a massive Arizona solar array.

IN ARIZONA, SUN SHINES FOR MOHAVE

Mohave Electric Cooperative is obtaining 5 MW of power from a new utility-grade solar energy facility expected to produce almost 10 million kWh annually, enough to serve about 820 homes.

The co-op described purchased power, which represents about 80 percent of members' bills, as very important to rates. According to CEO Tyler Carlson, a cost-effective solar project has been part of Mohave Electric's renewable energy plan for several years.

"We have been looking for the right combination of unique financial leverage and partners to make it happen," Carlson reported. "After considering all kinds of scenarios from renewable energy developers, this one made sense."

Under the deal, Bullhead City, Ariz.-based Mohave Electric initially will purchase the power from Constellation Solar Arizona, LLC (constellation.com). Once that entity's project-related tax credits have been exhausted, the not-for-profit co-op, which does not need such credits, intends to own the solar farm.

Mohave Electric's members are interested in adding solar resources, Carlson said, provided that they are cost-effective. Because of solar power's intermittent production, he added, it must be balanced with coal and natural gas generation "to maintain the reliability that our members count on."

Contact: Mohave Electric Cooperative, Tyler Carlson, 928-763-4115; Constellation Solar Arizona, 410-783-2800.

LOUISIANA CO-OP ENHANCES COMMS

In an effort to enhance communications capabilities among its 15 substations, Franklinton, La.-based Washington-St. Tammany Electric Cooperative built a network that accommodates SCADA management, SCADA control, advanced metering infrastructure (AMI), video, and voice, with redundancy.

The system, built by iS5 Communications (iS5com.com), uses ring topology—a network configuration with devices connected to each other in a circular shape—to achieve switching times of less than 20 milliseconds (ms). Using the iRing protocol, the iS5 network allows devices from one substation to communicate with devices from others with a transit time of 15 to 30 ms.

The system also uses Virtual LAN—a network of computers that behaves as if physically connected to one another even though they may be located on different segments of the LAN—to isolate SCADA management traffic from the AMI, voice, and video.

Contact: Washington-St. Tammany Electric Cooperative, 985-839-3562; iS5 Communications, Carlos Augusto, 905-670-0004.

ENHANCING OUTAGE RESPONSE IN GEORGIA

Central Georgia Electric Membership Corporation has deployed a new system enabling it to enhance responsiveness and reduce downtime following power outages.

Survalent Technology's fault

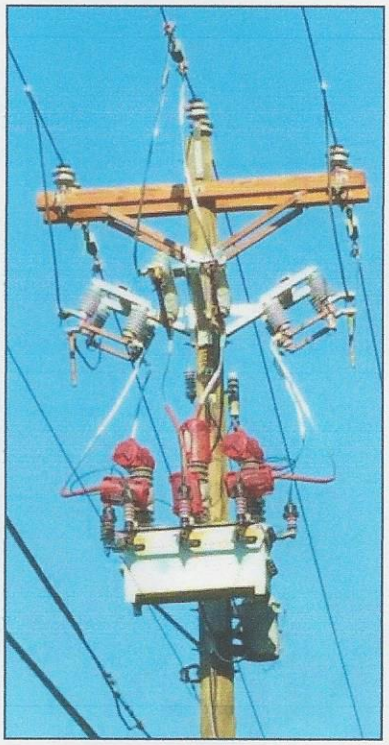

Photo courtesy Central Georgia EMC

Survalent FLISR system

location, isolation, and service restoration (FLISR) solution was deployed in parallel with the installation of 111 pole-mounted reclosers. According to the company (survalent.com), FLISR automatically opens and closes switches to isolate compromised line sections and re-energize healthy ones to restore energy distribution.

Herschel Arant, Central Georgia EMC's vice president of engineering services, said the co-op deployed the system in search of "improved SAIDI [System Average Interruption Duration Index] performance, more satisfied customers, and an enhanced competitive advantage with key high-usage commercial customers who have a choice of energy provider."

The co-op, based in Jackson, Ga., has more than 5,331 miles of distribution line in its 14-county service area. It reported that in the wake of a storm-caused outage in March, power was restored within 25 seconds to more than 76 percent of the 1,000-plus consumers affected, with the remainder back on-line within 39 minutes. Previously, the report states, this challenge might have taken an hour or more to resolve.

Contact: Central Georgia EMC, Herschel Arant, 770-775-7857; Survalent Technology, 682-312-5700.

VEHICLE LOCATION ON-SCREEN IN DELAWARE

Delaware Electric Cooperative has deployed an integrated automatic vehicle location (AVL) system to manage a 90-vehicle fleet that delivers services to about 86,000 consumers.

Dwayne Street, Delaware Electric's technology manager, said the Greenwood, Del.-based co-op wanted to replace its legacy vehicle location system with a flexible solution that provides an improved user interface, more reporting, and better alerting capabilities.

"We also wanted non-proprietary in-vehicle hardware to support our mobile data needs over an LTE network," he added.

Photo courtesy Delaware Electric Cooperative

Delaware Electric fleet vehicle

The co-op went with the AVL 5.1 system from Clevest Solutions (clevest.com), which offers safety alerts, geofence virtual perimeters, post-incident reports, and fleet maintenance and is integrated with Delaware Electric's ABB CadOps outage management system.

Contact: Delaware Electric Cooperative, Dwayne Street, 302-349-3162; Clevest Solutions, Robert Dreskai, 604-214-9700, ext. 202.

COBB ATTACKS EMERGENCIES WITH DISPATCH

Cobb Electric Membership Corporation is deploying a system to improve the way it notifies its 277-person operations crew is notified when there is emergency, particularly after normal work hours. The Marietta, Ga.-based co-op expects to begin using the ARCOS Callout and Scheduling Suite during the third quarter of this year.

"The primary reason we're putting the system in place is to improve the operating efficiencies of our manual callout procedure," said Alan Freeman, Cobb EMC's director of operations. Freeman characterized the current procedure as "a manual 'daisy chain' callout process." At times, it can be difficult to reach all personnel in a timely manner, he said, adding that the system will also help the co-op clarify the need for outside resources earlier.

According to Ohio-based ARCOS, LLC (arcos-inc.com), its cloud-based suite frees dispatchers and supervisors from combing through electronic spreadsheets and files for the names of available linemen, locating and assembling utility repair crews after normal business hours, while factoring in any work agreements dictating the order of calls.

Contact: Cobb EMC, Meredith Davis-Zonsius, 678-355-3142; ARCOS, Bill Perry, 614-975-7538. RE

Photo courtesy ARCOS, LLC

Cobb EMC is deploying a new emergency notification systems for crews.