

Certificates of Merit

Ten certificates of merit were also awarded to innovative co-ops to recognize their ingenuity in the application of new energy and information technologies that improve customer service. "I was truly impressed with the majority of the entries," says Penelope Hinson of Horry Electric Cooperative in Conway, S.C., who was a contest judge. "We have some really creative, organized talent out there. They know their systems and members, thoroughly research the product, evaluate their options and work to economically meet the growing demands of their members."

Under 8,000

Clay Union Electric, SD

Affordable Internet-based AMR

Clay Union Electric envisioned use of a high-power wireless mesh technology to monitor irrigation pumps over long distances and large areas. The co-op worked with Advanced AMR Technologies to develop the technology. Innovative features include the use of a very light level of wireless infrastructure to provide real-time pump monitoring, energy management and control over the Internet. The co-op has found that this system achieves results with an infrastructure cost of less than \$5,000, with no recurring costs or individual substation equipment costs.

Technology supplied by: Advanced AMR Technologies, LLC • Peabody, MA
Company Contact: Gerald Mimno, General Manager • Phone: 978.826.7660
Web site: advancedamr.com

Consumers Energy, IA

Testing micro-combined heat and power (mCHP) technology

Consumers Energy collaborated with Aisin, an international technology company, for a year long test of Aisin's G-60 Micro-CHP system. This co-generation unit operates on an advanced automotive engine that can run 30,000 hours with only minor maintenance, producing 6 kW of electricity and 11.7 kW of usable heat. Consumers Energy combined this unit with a hydronic floor-heating system to achieve even higher energy savings for the co-op and its member-customers. The co-op will collect test data throughout the year and will then be allowed to keep the unit for continued operation.

Technology supplied by: ECO Technology Solutions, LLC • Leesburg, VA
Company Contact: Bill Cetti
E-mail: info@ecotsusa.com • Web site: energytechnologysolutions.com

Consumers Energy, IA

Community deployment of geothermal heating and cooling

To provide a 112-unit development heating and cooling at reduced cost to its members while improving the environment, the co-op turned to geothermal heat pump technology. Consumers collaborated with a single supplier and single installer, which resulted in a 30-40 percent reduction of cost due to economies of scale. Annual energy-cost savings for each townhome unit was approximately \$1,100. Each home owner will realize about \$50,000 in energy-cost savings over the life of a 30-year mortgage.

Technology supplied by: Ground Source Innovations • Ankeny, IA
Company Contact: Gary Henderson • E-mail: gsi001@msn.com

Middle Georgia EMC, GA

GIS viewing and mapping system

Middle Georgia EMC faced several challenges common to small co-ops with limited resources: support knowledge transfer, increase staff productivity and effectively handle outages. To meet these goals with just a four-figure budget, the co-op deployed a geographic information system (GIS) viewing technology that delivers current facilities maps and data to all its employees. Origin Geosystems supplied MGEMC the technology, called Origin Reader

Technology supplied by: Origin Geosystems Inc. • Smyrna, GA
Company Contact: Jana Laflair • Phone: 770.432.600 x 100 • Web site: origingis.com

8,001 - 20,000

Coosa Valley EC, AL

Energy efficiency upgrade program for manufactured homes

The co-op identified the fact that electric furnaces in manufactured homes were seriously driving up demand in winter, with total demand potential measured in megawatts. To reduce demand, the co-op worked with members and manufactured-home dealers to convert these furnaces to electric heat pumps. The heat-pump program involves retrofits for existing homes, education of manufacturers about the benefits of heat pumps and helping home owners find financing.

20,001-50,000

French Broad EMC, NC

Wireless AMR

French Broad EMC launched an Automated Meter Reading (AMR) project to achieve at least three main goals: 1) improve service to a widely dispersed membership, 2) reduce costs and 3) improve operational efficiency. The co-op chose Tantalus Systems Corp.'s TUNet™ long-range, multipurpose communications network. TUNet™, a wireless solution, provides a basis for adding other control applications, such as distribution automation and load management.

Technology supplied by: Tantalus Systems Corp. • Vancouver, BC
Company Contact: Rob Lawridsen-Hoegh
E-mail: rlh@tantalus.com • Web site: tantalus.com

Peace River EC, FL

Standby generators for key accounts

Peace River EC deployed a standby generation system to ensure service continuity and disaster-recovery capability for its community and key accounts. The co-op proved innovative in strategically placing the generator inside the system to not only shave peak power expenses, but to effectively deliver backup power during a major hurricane that devastated Florida.

The project was supported by CEVA Energy, an energy services subsidiary of Central Virginia EC.

Laurens EC, SC

Software to integrate databases

To avoid problems caused by multiple databases, the co-op opted to replace these with one relational database. This type of database would allow staff to key in information once, populate different database tables at the same time and then make the information available to other functional systems. The co-op partnered with ATS Corporation to craft a solution, called TOTAL ACCESS.

Technology supplied by: Applied Technology Solutions (ATS) • Jacksonville, NC
Company Contact: Jon King, CEO • E-mail: ats@atscorporation.com
Web site: atscorporation.com

Above 50,000

Dakota EA, MN

Software for improved SCADA

In upgrading its previous SCADA system, DEA turned to BJS Industrial Computing's iPower SCADA software and coupled it with the state-of-the-art iFix SCADA engine by General Electric. This combination resulted in a SCADA system that is full-featured, robust and reliable. Because it is easy to install and configure, co-op staff were able to do much of the work. DEA worked with BJS to build into its standard product several key features that will benefit other co-ops that use this product.

Technology supplied by: BJS Industrial Computing • Auckland, New Zealand
Company Contact: Tony Haresnape • Phone: 649.489.9944
E-mail: tony.haresnape@bjs.co.nz • Web site: i-scada.com

Flint EMC, GA

Computer-telephone integration software for call centers

To help member services reps in its call center, Flint EMC adopted Whitefield's Computer-Telephone Integration (CTI) screen-pop software. This software automates the process of identifying the name and account of callers, avoiding time spent previously looking up that information in the co-op's database. The automated look-up process saves at least eight employee-hours per day for the co-op, while speeding up member service.

Technology supplied by: Whitefield, LLC • Sacramento, CA
Company Contact: Jayme Pechan • Phone: 866.292.9526
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Presents the winners of the

2005
**COOPERATIVE
Innovators**
A W A R D

Recognizing excellence in using
technology to enhance customer service

Presented at the
NRECA/Touchstone Energy®
Connect 2005 Conference & Expo
May 17, 2005
New Orleans, Louisiana

2005
COOPERATIVE
Innovators
AWARD

BRIGHT IDEAS FROM CO-OPS

The Cooperative Innovators Award recognizes co-op leadership in adopting new technologies, products or services to improve customer service and satisfaction. In May, four distribution co-ops and one G&T received the awards, including:

Columbia REA

Dayton, WA

Community Communications System



Columbia REA was recognized for its wireless Community Communications System, an adaptation of its Wi-Fi network, which provides high-speed broadband communication service to its members and the local community. The project's initial goal was to connect multiple service centers without the limitations of dial-up connections and copper line solutions. Columbia REA was also looking to improve its operational efficiencies in light of potential supplier rate increases. But the co-op's own high-speed communications needs were mirrored by local businesses and the community at large. Columbia REA turned to the intelligent Wi-Fi base station technology from Vivato Inc. With a total range of 1,500 square miles, the system's value to the local population extends well beyond simple Internet service. Local businesses, agencies and farmers are using the system as a communication tool for a variety of applications—from controlling irrigation to emergency response. The system helps local farmers compete in a global marketplace and stimulates the economic development of small local communities. CEO Tom Husted recently noted that "Our members were disenfranchised people of rural America who did not have access to high-speed communications. We see that as synonymous with our original mission of providing electricity in areas that nobody else would serve. It was the New Deal all over again."

Technology supplied by: Vivato Inc. • San Mateo, CA

Company Contact: Leanne Damiani • Phone: 650.227.0490

E-mail: ldamiani@vivato.net • Web site: vivato.net

Truckee-Donner PUD

Truckee, CA

Field GIS System



Truckee-Donner PUD developed a field geographic information system (GIS) system that synchs automatically via a wireless network to enhance the ability of utility crews to respond to system emergencies and outages and improve customer service. The co-op was looking for a way to provide its field personnel with more accurate and comprehensive geographic information in a region with difficult geography and weather conditions—up to 500 inches of snow per year! Truckee-Donner PUD chose Tadpole Technologies, Inc.'s GO! Sync (Redline) data synchronization and replication technology. The system, which is deployed on compact touch-screen Tablet PCs, provides a user-friendly method for the utility's field crews to sketch maps and work-related drawings onto underlying GIS data. The crews now have access to seamless district maps of all circuits, along with detailed switching and substation schematics. Enhanced network information in the hands of those who operate and maintain the system is critical for ensuring system reliability. The field crews can rapidly locate poles, fuses and transformers by their Facility ID, obtain key information and ensure that they have the proper equipment to resolve problems without making a second trip. The system proves its worth particularly during complex underground outages by displaying the extent of outages, affected members and flow patterns. Enhanced system reliability and improved response time through advanced technology to improve member service are what the CRN Cooperative Innovators Award is all about.

Technology supplied by: Tadpole Technologies, Inc. • Carlsbad, CA

Company Contact: Don Fryhover • Phone: 210.422.5476

E-mail: don.fryhover@us.tadpole.com • Web site: tadpoletechnology.com/gsd

Crow Wing Power

Brainerd, MN

Web-based Information Portal



Crow Wing Power designed an automated meter-reading and Web-based customer energy information portal that improves service to customers and affords them greater control over their electricity bills. The co-op worked closely with Hunt Technologies, Apogee Interactive and SummitEIS to integrate their Web service messaging, energy and billing analysis, and portal technologies. The portal translates complex consumption, load, weather and billing data into an intuitive graphical format that is available to the member service agent and the customer via the Internet. Phone inquiries can be resolved completely the first time, without additional trips to the local office since both the customer and member service agent can view the same information together. The portal also contains powerful Online Energy Audit technology, which enables the customer to calculate the savings potential of different consumption, structure and rate choices. To ensure accuracy, the tool incorporates 16 home-specific variables in addition to usage and weather data and the entire process is guided by the Member Service Agent. Customers may also e-mail the co-op with the specific details of their usage patterns to simplify the call process. When co-ops use the power of technology to enhance member communications, everyone wins.

Technology supplied by: Hunt Technologies Inc. • Pequot Lakes, MN

Company Contact: Vicki Trees • Phone: 218.562.5525

E-mail: vickit@turtletech.com • Web site: turtletech.com

Technology supplied by: Apogee Interactive • Tucker, GA

Company Contact: Karen Morris • Phone: 770.270.6501

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Clay Electric Co-op

Keystone Heights, FL

Wireless Outage Notification System



Clay Electric Cooperative developed a real-time text-messaging system that provides enhanced outage response time, fulfillment of customer service requests and more efficient meter-reading capabilities. The system integrates cell phone data messaging technology from Nextel Communications with the co-op's own dispatch system to report problems with the network. The system searches the trouble-call server for new outages and automatically sends a message to appropriate field personnel every three minutes. The provision of real-time field information allows service representatives to respond more quickly and accurately to customer inquiries concerning new service activations, meter readings and service calls. Because only a modest investment in hardware and infrastructure was required to build the network, the Wireless Outage Notification System was also very cost-effective to implement. The system represents a win-win situation for the co-op and its members. The customer enjoys improved service while the co-op benefits from better operational efficiency and reduced costs.

Technology supplied by: Nextel Communications • Reston, VA

Phone: 703.433.4000 • Web site: nextel.com

Wabash Valley Power

Indianapolis, IN

EnviroWatts Program



Wabash Valley Power received an Innovators Award for its commitment to renewable energy through its EnviroWatts program. Wabash was one of the first G&Ts to develop a large landfill-gas project that uses methane, a greenhouse gas, to produce electricity. The co-op's member surveys indicated that a large percentage of their customers were interested in obtaining their electricity from clean, renewable sources of energy. More than 800 members currently participate in the EnviroWatts program, making it one of the most popular "green-power" programs in the country. Furthermore, the landfill-gas generating plants provided economic gains to the local economy along with reliable, high-quality power delivery. The co-op currently operates seven landfill-gas generating stations producing 22.4 MW of power and manages a successful marketing program to sell its renewable energy. The program has been so successful that other G&T co-ops have adopted the program brand and business model.