

Lighting the World

Co-ops help deliver power and hope to over 100 million people across the globe

NRECA International Programs



A Haitian student with transformers that became part of his school's electric service system.

“They speak the same work”

As electric co-ops celebrate 75 years of providing affordable electricity for rural Americans, another story unfolds globally, echoing the cooperative success story. Volunteers from electric co-ops across the nation are spreading rural electrification overseas, sharing light and hope with war-torn or forgotten communities.

“When I told my daughter, Katie, she couldn’t believe some places in the world don’t have electricity,” said Craig Larkin, a lineman from Missouri’s Cuivre River Electric Cooperative who spent several weeks lighting up a city in war-torn Southern Sudan. “If we can help them out, that’s an awesome thing.”

NRECA International Programs, a division of the National Rural Electric Cooperative Association, since 1962 has affected over 100 million lives in more than 40 developing nations by building safe and reliable electricity distribution systems. Funding for this global goodwill effort comes in part from the NRECA International Foundation, a registered charitable organization partnering with electric cooperatives in the U.S.

NRECA International Programs doesn’t simply bring American linemen into a country for a few weeks,

then pull up stakes. Staff members and volunteers teach locals how to build and maintain simple power grids and run their own utilities.

“The ultimate rewards we see are the long-term benefits,” explains Guatemala volunteer Chris Stephens, manager of engineering for the Georgia co-op Coweta-Fayette EMC. “We’re shar-

ing information and technologies from our linemen to their linemen. They may not speak the same language, but they speak the same work.”

The initiative also introduces communities to the co-op business model and shows them what electric power can do for schools, health clinics, farms and local economies. Today, NRECA International Programs projects are under way in Bangladesh, Republic of the Philippines, India, Bolivia, Haiti, Senegal, Dominican Republic, Costa Rica, Southern Sudan, Yemen, Nigeria, and Guatemala.

Over the years, North Carolina’s electric cooperatives have sent volunteers from linemen to board members, as well as equipment such as vehicles and generators, to many of the International Programs projects.

Through the Sister Cooperative Partnership Program, three North Carolina co-ops have relationships with Latin American electric co-ops: Blue Ridge Electric (Lenoir) with Cooperativa Rural de Electrificación in Bolivia, Carteret-Craven Electric (Morehead City) with Coopesantos R.R. in Costa Rica, and EnergyUnited (Statesville) with Cooperativa Electrica Riberalta in Bolivia. After staff and

directors from Coopesantos visited Carteret-Craven Electric to study strategic planning, finance and logistics, their communication director said, “We made friends instead of just learning.”

To watch videos of linemen volunteering across the globe or to make a donation supporting the program, visit NRECAFoundation.coop.

—Megan McKoy, NRECA

On a mission to Zambia

Ken Thomas of Haywood EMC in Waynesville is not only a skilled electric lineworker and the co-op’s manager of marketing and communications, he also is a well-traveled missionary. Haywood EMC supports Ken’s volunteer work with the international Christian relief organization, Samaritan’s Purse, which is based in Boone.

Ken and his Samaritan’s Purse colleagues, including other North Carolina electric cooperative linemen, have traveled to such corners of the globe as Guatemala, Kosovo, Papua New Guinea and Belarus on missions to build and repair electric distribution systems, primarily for hospitals, in desperate and poverty-stricken regions.

In late October, Ken joined the most recent adventure in the southern African nation of Zambia. The tasks there over two and a half weeks included improving an electric supply system for the Mukinge Missionary Hospital where power outages occurred frequently, including during surgery, and sometimes lasted for days. By building a battery inverter system, the volunteer electrical engineer and electricians left the hospital an

Samaritan's Purse



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uninterruptible power supply. “In their operating theaters now they won’t even see a blink when there’s an outage,” Ken said. They also installed an automatic transfer switch which activates a back-up electric generator when an outage affects other sections of the hospital, and they rebuilt lines and equipment to allow the hospital’s water supply to pump reliably.

Ken learned that the Zambia National Power Company (ZESCO) is so impoverished that it took four years to get electric service to a new missionaries’ home on the hospital premises. “They plan to build a school for nurses,” he said. “But unless someone else comes in to build the half-mile electric system, the Zambia power company won’t be able to reach it for 10 or 15 years.”

In May, Ken has scheduled to take more personal leave time to perform similar work with a Samaritan’s Purse mission to a hospital in Jordan.

—Michael E.C. Gery



Ken Thomas worked with local lineworkers to rebuild distribution service to a hospital in Zambia.

Q: How can I find out how much electricity we use at home?

A: Learning to track how much electricity your home consumes is a good way to start managing electric use billed by your electric co-op in kilowatt-hours (kwh).

Devices are appearing in stores that provide a constant, digital reading of how much electricity your home or even individual appliances are using. One type, such as the Kill A Watt™, fits between an electrical outlet and an appliance to give you an instant reading of how much electricity an appliance draws.

Another type connects to your electricity meter and wirelessly relays use information to a small screen inside. Called an in-home display, the device looks similar to a wireless weather monitor and can help make consumers more aware of energy being used day to day. Research conducted by the Cooperative Research Network (CRN), the research arm of the National Rural Electric Cooperative Association (NRECA), shows that most consumers who have an in-home display use less energy than those without one. And even after homeowners stop paying attention to the devices, most still use 1 to 3 percent less energy than before.

“The question of whether in-home displays catch on and become permanent fixtures in the American home is still open,” explains Brian Sloboda, program manager with CRN. “However, for anyone wanting to take a proactive approach to understanding electric consumption, the in-home display may be worth exploring. You could use the knowledge that an in-house display provides to change the way you use electricity in your home and save some money.”

There’s also the old-fashioned way of tracking electricity use: reading your meter. As your home draws current from power lines, your electricity meter keeps a steady record of every watt being used. Many meters today are digital, replacing the older—though still reliable—design that uses spinning disks and dials.

Digital versions make tracking energy use a breeze: jot down the number you see, and check it again in a month. The difference between the two represents the amount of electricity that has been used for that month, or a typical billing period. Check it more frequently to get an idea of how you use electricity in a given week, or even day by day.

To read an older model meter (with spinning dials), write down the numbers as shown on the small dials from left to right. Some of the dials spin clockwise, some counter-clockwise, but record each number closest to the dial hand. Once you have the full reading it can be compared to later readings, as described above.

If you have any questions about reading your meter or learning more about how much electricity your home uses, contact your electric cooperative.

—Scott Gates, NRECA



Home power monitors like this Kill-a-Watt model (about \$50) are becoming available in home improvement stores and online.

Can you help others save energy?

Send your conservation ideas or questions to us:

P.O. Box 27306, Raleigh, NC 27611, or E-mail: editor@carolinacountry.com