



NRECA INTERNATIONAL PROGRAMS

By Jennifer Taylor

FAMILY TIES

For nearly five decades, rural electric systems overseas have benefited greatly from “sister” partnerships with electric co-ops across the United States



CORBIS

In 1963, W.C. Carlton, then general manager of Carteret-Craven Electric Cooperative in Newport, N.C., traveled to south-central Costa Rica on a mission—to bring power to a mountainous region best known for growing coffee. Two years later, with additional support from his co-op, Carlton’s initiative bore fruit when residents in the rural slice of the Central American nation, 45 miles south of the capital of San José, energized a local, consumer-owned electric system dubbed Cooperativa Eléctrica de los Santos (Coopesantos).

The Costa Rican project grew from a November 1962 agreement between NRECA and the U.S. Agency for International Development aimed at electrifying rural districts overseas. It also marked the first example of what has become known as the “Sister Cooperative Partnership Program,” where electric cooperatives in the United States individually

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establish relationships with a counterpart in a developing country.

“As part of the exchange, U.S. electric co-ops provide monetary support, equipment, volunteer labor, and management advice to a co-op in another corner of the world,” comments Ingrid Hunsicker, manager of the NRECA International Foundation, an arm of NRECA’s International Programs division.

Left: Ron Plank, vice president of operations at Adams Electric Cooperative in Pennsylvania, has traveled to the co-op’s sister system, Coopelesca R.L. in north-central Costa Rica (above), on four different occasions to deliver donated equipment and train employees. Top left: Georgia electric co-op linemen gather with counterparts from their sister co-op, Coopeguanacaste, which serves northwestern Costa Rica.

“So far, the Sister Cooperative Partnership Program has been active in Bolivia, Honduras, the Philippines, Guatemala, Costa Rica, and the Dominican Republic. It’s a great way to tap the skills and technical know-how of roughly 65,000 electric cooperative employees across the U.S. and then apply those talents to electrification efforts elsewhere.”

Thanks to early help from Carteret-Craven Electric, Cooperativa Electrica de los Santos quickly expanded. Although the sister relationship faded in subsequent decades, it was formally reestablished in 2002 through cross-training activities.

In June 2007, two employees from Coopesantos—which was expanding its infrastructure and working to incorporate alternative power generation, such as wind and hydro—visited Carteret-Craven Electric offices to study issues related to strategic planning, finance, and logistics. In addition to hands-on lessons, they were also intro-

duced to some “Down East” hospitality—a fresh seafood lunch—from Carteret-Craven Electric Director Fred Fulcher, who had toured their system three years earlier.

“We made friends instead of just learning,” reports Lisa Taylor-Galizia, the co-op’s communications director.

For the past 24 years, Adams Electric Cooperative, headquartered in Gettysburg, Pa., has also worked in Costa Rica with Coopelesca R.L.—called simply “San Carlos” by locals—based approximately an hour north of San José in Cuidado Quesada. As sister cooperatives, Adams Electric and Coopelesca share information about setting rates, member services, management techniques, operations and engineering practices, training opportunities, and financial matters.

“We are proud of our long-standing relationship,” declares Steven Rasmussen, Adams Electric CEO/general manager. “We have played a part in their successes and they

in ours. Through it all, we have gained a greater appreciation for rural electrification in Latin America and have been fortunate to assist as rural Costa Rica has developed.”

In many ways, the two cooperatives are remarkably similar—both serve predomi-

nately rural areas inhabited largely by industrious, middle-class property owners. Both boast democratically elected boards of directors, experienced staffs, and have earned the respect of government officials and neighboring utilities.

But there are differences. Celebrating its 43rd anniversary in March (a ceremony attended by Rasmussen and Adams Electric

Board President Jay Grove), Coopelesca serves more than 50,000 members with 150 workers. Adams Electric, for its part, serves nearly 31,000 members and employs more than 80. However, the average Coopelesca household uses just 150 kWh of electricity each month, compared with about 1,200 kWh for a typical Adams Electric residence.

Over the years, the two systems have

SOUTHERN EXPOSURE

Created in November 1962 at the request of President Kennedy to help combat communist expansion, NRECA International Programs has helped 42 developing countries provide safe, reliable, and affordable electricity. These electrification programs have resulted in increased agricultural productivity, millions of new jobs, and higher incomes and quality of life for nearly 100 million people.

Two distinct entities compose NRECA International Programs: NRECA International, Ltd., and NRECA International Foundation. NRECA International, Ltd., a wholly owned NRECA subsidiary with offices in six countries, has designed, constructed, and operated hundreds of rural electric utilities while training personnel to own and manage them. It’s currently engaged in projects in 11 countries, including Afghanistan, Bangladesh, Bolivia, Costa Rica, the Dominican Republic, Guatemala, Haiti, Nigeria, the Philippines, Sudan, and Yemen.

NRECA International Foundation, a registered charitable 501(c)(3) organization, partners with U.S. electric cooperatives and others to bring power to rural villages in developing countries.

The foundation, created in 1985, has provided millions of dollars in funding, donated equipment, and volunteer personnel.

A recent NRECA International Programs accomplishment includes a mission to Yei, Southern Sudan. There,

six lineworkers from Missouri and Nevada—laboring side-by-side with local linemen—spent three weeks earlier this year building 1.5 miles

of single-phase line and nearly 4,000 feet of three-phase line to serve a new medical center, school, church, radio station, and more than 200 residents. During their “tour of duty,” Jamie Conrow, Jimmy Goodnight, and Steve Baumgartner with Boone Electric Cooperative in Columbia, Mo.; Craig Larkin and Mark Ziegler from Troy, Mo.-based Cuivre River Electric Cooperative; and Bobby Ball from Valley Electric Association in Pahrump, Nev., set 40 poles and strung nearly 20,000 feet of wire—all by hand.

For the Americans, working without the aid of power tools or bucket trucks, the assignment proved both

The population of Yei, in Southern Sudan, has climbed from 30,000 to more than 180,000 due to the arrival of electric service.



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engaged in numerous activities, such as attending meetings and touring each other's facilities. In 2003, an engineer from Coopelesca spent a month in Adams Electric's four-county south-central Pennsylvania service territory studying operations and engineering; that same year, several Adams Electric directors attended the dedication of two Coopelesca hydropower projects.

Ron Plank, Adams Electric vice president of operations, has traveled to Coopelesca on four occasions with his co-op's directors and chief executive to deliver donated equipment and train employees on how to properly operate and maintain it.

"Coopelesca serves rough and mountainous terrain with narrow roads and no guard rails," Plank points out. "On my first visit, I

discovered that it had no man-lifts or bucket trucks. Most of the work was done from the wooden bed of a small pickup truck. A lone meter reader rode a motorcycle and threw his gear in a backpack."

Last October, Adams Electric sent a fully depreciated 1991 four-wheel drive bucket truck to Coopelesca—the sixth it has donated to Central America since 1998.

a physical challenge and a cultural awakening.

"We may have been nine hours ahead time-wise, but we were 200 years behind in terms of living conditions," remarks Conrow, a journeyman lineman. "You see images on TV and in magazines, but it's a whole different world when you're over there. The line construction methods took us back to the way linemen used to do it when co-ops first got started in this country."

Goodnight agrees. "We might have been working eight-hour work days, but it was about equivalent to a 12-hour day because of the manual labor." And Ziegler, a 23-year veteran

lineman, observed, "We haven't piked poles into place in more than 20 years, but the Sudanese crews have been at it since 2005."

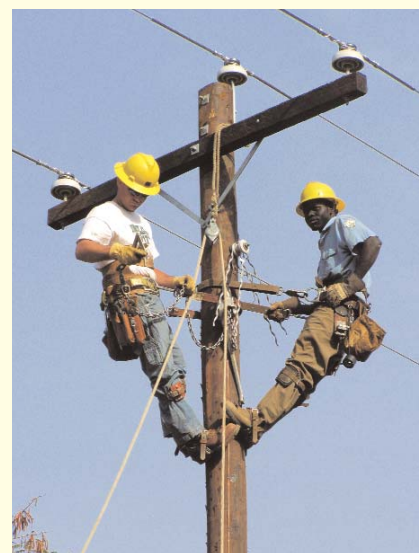
Despite cultural differences, the U.S. linemen discovered they had a lot in common with their Yei counterparts. Joking was common, even if everyone didn't always understand what was funny.

"They're so happy right now; they've never had this before," contends Baumgartner, referring to both the availability of electricity as well as political stability in Southern Sudan. Since 2003, the region has operated autonomously from the central government and has remained relatively stable after enduring 20 years of civil war with the Muslim north that destroyed most of the existing infrastructure.

Referred to as "Little London," Yei had once served as a conduit for trade between Sudan and neighboring Uganda and Congo. NRECA International Foundation first sent volunteers to Yei five years ago—as fighting wound down and refugees returned home—where they trained linemen and helped local leaders establish their own cooperative.

In total, the Yei project has involved construction of more than 10 miles of line, connecting almost 400 customers in the service area. At night, 130 streetlights now brighten the darkness, allowing children to both play and study. In contrast, the Southern Sudan capital city of Juba can claim only two working streetlights.

"By all measures, the Yei project has been a big success," emphasizes Vivek Talvadkar, NRECA senior vice president of international programs. "Electrical service has been in opera-



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Journeyman Lineman Jamie Conrow, left, from Boone Electric Cooperative in Missouri, works with Yei Lineman Hakim James to string a secondary wire on a pole they had set earlier.

tion since 2005. Since the lights first came on, the city has grown from 30,000 to more than 180,000 in population, driven by safety and economic development resulting from electricity."

Missouri lineworkers Karl Brandt of Gascosage Electric Cooperative in Dixon and Danny Brown of Macon Electric Cooperative in Macon, as well as Willy Milner from Wyrulec Company in Lingle, Wyo., also recently contributed to the Yei electrification effort.

Within a few months, the Yei cooperative will be transferred to local control, Talvadkar points out.

—Some information for this article was provided by Rural Missouri, the statewide consumer publication of Jefferson City, Mo.-based Association of Missouri Electric Cooperatives.



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“Due to newer equipment and our support, Coopelesca has advanced to where it can be considered a modern operation,” insists Plank. “On a personal level, the sister co-op relationship has proven to be very satisfying for me.”

Impressed with the international commitment shown by its fellow Keystone State system, Somerset Rural Electric Cooperative in Somerset, Pa., partnered with Cooperative de Electrificación Rural Alfaro Ruiz (Coopealfaroruiz), a small Costa Rican electric cooperative serving just south of Coopelesca.

“On our first trip, we were impressed with how well Coopealfaroruiz adhered to the seven cooperative principles and how friendly all of their folks were,” says Somerset REC General Manager Rich Bauer.

“Though language barriers initially caused a bit of a problem, they were easily surmounted with help from a translator.”

Bauer concedes that he was immediately concerned about Coopealfaroruiz’s safety practices and operational efficiency. “To do work, their linemen propped tall ladders against poles. And because they had to constantly hold the ladder in place, they were limited to the use of one hand while working. So we decided to get them a bucket truck.”

The request was eventually facilitated through another donated Adams Electric vehicle. “We raised enough money to send it to Coopealfaroruiz,” Bauer adds. “We’d love to get them another one. We are optimistic about our future working relationship.”

Also in Costa Rica, several electric cooperatives from Georgia—in partnership with NRECA International Foundation and the Sister Cooperative Partnership Program—have been working with Coopeguanacaste, which serves a northwest corner of the country flanked by the Pacific Ocean and Nicaragua, since 2005.

“Thanks to volunteers, equipment, and training from electric co-ops here in the United States, the lives of many Costa Ricans



Employees at Davao Del Sur Electric Cooperative in the Philippines refurbish donated transformers, thanks to a helping hand from Big Rivers Electric Corporation, a Kentucky generation and transmission co-op.

have been forever improved, especially in impoverished sections along the Nicaraguan border where immigrants from that country have headed south in search of a better life,” contends Vivek Talvadkar, NRECA senior vice president of international programs.

One village at a time

Large swaths of our world face conditions similar to those that existed in rural areas of the United States 70 years ago, when central station electric power was available in cities but not across the countryside. Today, at least 2 billion people worldwide live without access to electricity, a total that encompasses 73 percent of the rural population of Latin America, 81 percent of Asia, 79 percent of North Africa, and 96 percent of those living in undeveloped zones elsewhere in Africa. A recent International Energy Association report pegged the investment required to “hook up” the globe by 2050 at more than \$185 billion per year.

Talvadkar recalls when electricity came to his grandparents’ farming village in the western coastal state and former Portuguese colony of Goa, India.

“What a difference it made in the lives of the people who lived there,” he reflects.

“Power raised income levels substantially in the village by over half and boosted crop yields [due to water pumps] by about a quarter.”

But electricity delivers more than economic growth, Talvadkar indicates. “It reduces infant mortality by about 35 percent, offers women more opportunities for personal growth, and expands employment and health care. There is also a strong correlation between electricity and increased school enrollment.”

Arguments against rural electrification on other continents are eerily similar to those echoed on our shores during the early part of the 20th century. For example, electric utilities operated by foreign governments often confine service to urban centers while investor-owned private power companies see no way to make a profit running electric lines to sparsely populated and remote locations. Even worse, foreign utilities are often so poorly managed or corrupt that they cannot provide a reliable supply of wholesale power.

Social and political issues in some nations make the struggle to bring electricity to rural communities even more difficult. In many countries, traditions of self-help, self-government, and joining to achieve a common goal do not

exist. A dismaying array of financial problems, such as a lack of investment capital and little understanding of even the most basic accounting procedures, throw up even more barriers.

Because circumstances vary so widely, NRECA International Programs has adopted the slogan, "Electrifying the world . . . one village at a time." The outreach relies on the time-tested electric cooperative business model—giving individuals, many for the first time, practical experience in democratic decision-making and free enterprise so they can launch locally driven services. Best of all, by aggregating small stakeholders into large-enough units to compete in the marketplace, cooperatives expand the critical people-to-people relationships needed to break down bonds of mistrust—a way to tackle terrorism and anti-U.S. sentiment on a grassroots level.

"One of the challenges we face in many countries is building a rural business culture," stresses Talvadkar. "When electric cooperative employees and volunteers from the United States arrive, they outline how to create a business plan, how to conduct meetings, how to collect the full amount due from consumers, what type of electric generation system they should invest in, and everything in between. It's all about finding out and building on what will work. Through these efforts, we show the best face of not only who we are as co-ops but who we are as Americans."

Miracle of light

On a church trip in 1998 to Mindanao, the second largest island in the Philippines, Travis Housley, vice president of special projects at Big Rivers Electric Corporation, a generation and transmission (G&T) co-op based in Henderson, Ky., journeyed to a jungle village and discovered it had no electricity. At the local church, the pastor told Housley it was his dream to have power.

"If we get you the

materials, can you provide the labor?" Housley asked the minister.

With the help and support of the G&T's board of directors, CEO, and its three member distribution co-ops, enough supplies and materials were collected and shipped to energize a power line to the isolated hamlet. Based on the success of the goodwill endeavor, Big Rivers Electric decided to spread power to other inaccessible communities and started its "Philippines Project."

In cooperation with the NRECA International Foundation and the Sister Cooperative Partnership Program, Big Rivers Electric joined with nearby Davao Del Sur Electric Cooperative to electrify approximately 30 villages on Mindanao, impacting the lives of more than 7,200 residents. The G&T has also expanded operations to assist another Philippines electric cooperative, Davao Oriental Rural Electric Cooperative.

"Our Philippines Project focuses not only on generating power but also spurring economic and village development," Housley

indicates. "Sewing machines, computers, and other equipment have been donated to help villages establish local businesses, which in turn help pay for electricity. Moreover, the project supports an equipment refurbishing shop that repairs, rewinds, and paints donated electrical equipment, like transformers."

In 1994, Kandiyohi Power Cooperative, based in Spicer, Minn., established sibling ties with Iloilo I Electric Cooperative in Tigbauan, Iloilo, Philippines, considered one of the most progressive utilities in that Pacific nation. Due to the success of its Filipino endeavor, Kandiyohi Electric, 11 years later, formed another sister relationship with Empresa Eléctrica de Zacapa (Zacapa), a municipal electric system serving Zacapa, Guatemala, and the surrounding region.

Dave George, Kandiyohi Electric CEO, sympathizes with the utility infrastructure issues facing Zacapa. "Poles are still set by hand and linemen work without safety equipment," he mentions. "Despite these challenges, most of the city of Zacapa is electri-

fied, but those living in surrounding mountain redoubts do not have power."

Staff from the North Star State co-op have made several visits to Zacapa to train linemen and staff on how to tackle various operational and administrative issues. Last fall, Kandiyohi Electric raised \$11,000 through a local fundraiser to recondition a bucket truck and a digger-derrick truck (donated by Bayfield Electric Cooperative in Iron River, Wis.) and ship them to the Guatemalan Highlands.

"It's a life-changing experience—seeing others do so much with so little and being able to help them help themselves," George relates. "And it has changed how we do business as well. I'm learning Spanish, and several of our customer service representatives have been to Spanish language training for basic utility 'speak.'" ■

A lineworker with a Philippines electric co-op extends service to a rural village in the Pacific nation. Although line construction techniques in other countries sometimes differ from those employed in the United States, electric co-ops all over the world work to improve the rural quality of life for millions.



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