ELECTRIC COOPERATIVES AND ALTERNATIVE ENERGY
a snapshot

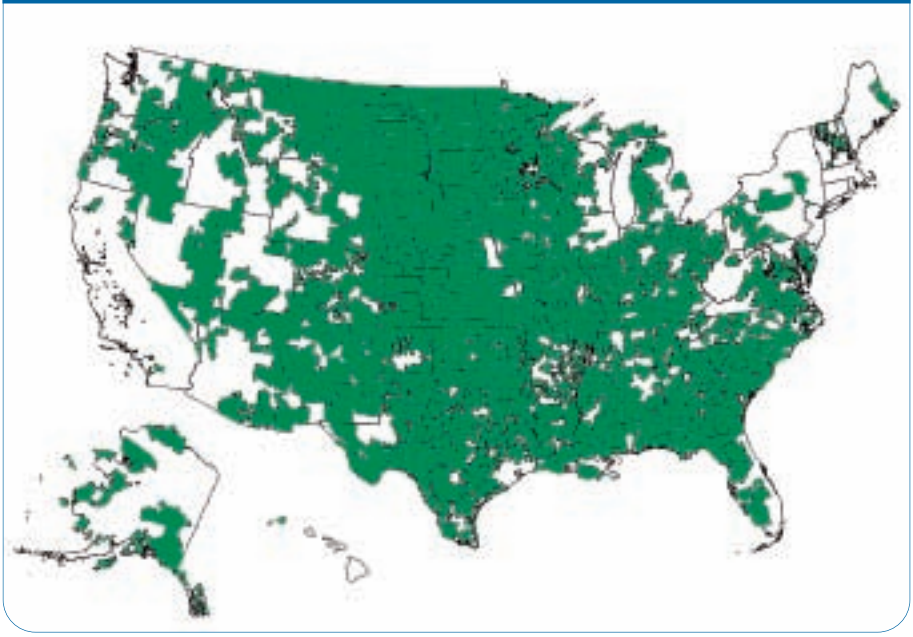
Electric cooperatives are private, independent electric utilities, owned by the consumers they serve. This local connection has resulted in electric co-ops establishing themselves as leaders in developing and offering alternative energy programs to their consumer-owners.

Locally owned and operated distribution cooperatives deliver electricity to the consumer. Generation and transmission cooperatives (G&Ts) generate and transmit electricity to their member distribution co-ops. Today there are 864 distribution and 66 G&T cooperatives serving 37 million people in 47 states, or 12 percent of the U.S. population, in 80 percent of the nation's 3,100 counties.

Electric co-ops are unique consumer-focused businesses with a mission to provide their consumers with reliable, affordable electric service. To fulfill that mission, they do the following:

- own assets worth $86 billion
- own and maintain 2.4 million miles, or 43%, of the nation's electric distribution lines, spanning three quarters of the nation's landmass
- serve an average of 7 customers per mile of line, while investor-owned power companies average 35 customers per mile of line, and publicly owned or municipal utilities average 47 customers per mile of line
- deliver 10 percent of the total kilowatt hours sold in the U.S. each year
- generate 5 percent of the total electricity produced in the U.S. each year
- employ 65,000 people in the United States, and
- pay more than $1 billion in state and local taxes

Land Mass Served by Electric Cooperatives



COMMITMENT TO COMMUNITY AND THE ENVIRONMENT

While electric cooperatives own and operate some of the nation's cleanest and most modern generating facilities, they continue to explore new technologies and fuel sources to control and reduce emissions. Distributed generation technologies, such as fuel cells, and renewable resources like wind, sun, and biomass (landfill methane gas, wood waste, farm by-products, and ethanol) offer generation alternatives that promise economic as well as environmental benefits for residential and business consumers alike, especially those in rural areas.

Electric co-ops have expanded their non-hydroelectric renewable generation capacity to more than 120 megawatts and look to add more capacity during 2005/2006. They purchased more than 500,000 megawatt hours of energy from renewable resources operated by various developers in 2004. Nearly 300 co-ops offer renewable energy options allowing consumers to buy green power from solar, wind, low-impact hydroelectric, and biomass generation. As a result, electric cooperatives hold a significant share of the green power market in terms of customer participation. For example, Holy Cross Energy, an electric co-op in Glenwood Springs, Colo., was recognized by the U.S. Department of Energy and NRECA's Cooperative Research Network (CRN) for one of the earliest and most successful green pricing programs.

WIND ENERGY

Basin Electric Power Cooperative, a G&T system with headquarters in Bismarck, N.D., made a long-term commitment with FPL Energy in Juno Beach, Fla., to buy 80 megawatts of capacity from FPL's wind farms in North Dakota and South Dakota. Basin Electric also operates two wind projects near Chamberlain, S.D., and Minot, N.D. Basin markets the power through the PrairieWinds program in conjunction with member cooperatives, East River Electric Power Cooperative, Madison, S.D., and Central Power

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Electric Cooperative, Minot, N.D. In addition to purchasing 100 percent of the capacity of two other wind turbines near Rosebud, S.D., and Pipestone, M.N., Basin Electric recently signed a new contract with FPL Energy to purchase all of the generation of a proposed wind farm near Wilton, N.D. When the Wilton Wind Project becomes operational, Basin Electric will have a total of 131 megawatts of renewable wind energy in its energy portfolio. Basin Electric delivers wholesale power to its 121 member cooperatives in nine states.

Great River Energy, a G&T in Elk River, Minn., and its member co-ops offer the Wellspring Renewable Energy Program from nine turbines generating 6 megawatts at the Chandler Hills Wind Farm. To date, more than 3,800 co-op members participate. In addition, Great River has partnered with Trimont Area Wind Farm to produce 100 megawatts of wind energy in southwestern Minnesota. Trimont Wind is a coalition of local citizens, and it is believed this will be the largest locally owned wind project in the nation.

Western Farmers Electric Cooperative (WFEC) in Anadarko, Okla., purchases the entire output of the 74.25 megawatt (mw) Blue Canyon Wind Farm. The energy produced by Blue Canyon supplies approximately five percent of WFEC's total energy needs to serve its 19 member-owner rural electric cooperatives. In turn, these cooperatives provide the energy to its member-owners that serve farms, rural residences, towns and commercial/industrial customers across two-thirds of Oklahoma.

BIOMASS ENERGY

Biomass energy includes landfill methane gas, wood waste, farm by-products, and ethanol. Of these resources, landfill methane gas is particularly promising for electric cooperatives.

Great River Energy also owns and operates a 40 mw waste-to-energy power plant at Elk River Station. This is by far the largest renewable energy source that co-ops own and operate right now. The state of the art plant helps reduce the amount of waste entering Minnesota's landfills by more than 300,000 tons each year.

Washington Electric Cooperative (WEC), East Montpelier, Vt., began its move toward renewable energy in 2002, when it ended its contract with Vermont Yankee for nuclear-powered electricity. After exhaustive research, the co-op's board of directors concluded that methane gas offered the best choice for reliable, low-cost, and predictable electricity generation. WEC built Vermont's first methane-powered electric generation plant at the Coventry Landfill providing 3.2 megawatts of electricity.

Dairyland Power Cooperative G&T in La Crosse, Wis., expanded its Evergreen℠ Renewable Energy Program, which began with wind generation and added a 3 mw landfill gas-to-energy plant to provide electricity to 2,600 homes. Several animal waste-to-energy projects are in operation or under construction on dairy farms in Dairyland's service territory. Manure is the resource and methane gas, its byproduct through anaerobic digestion, will generate 25 megawatts of renewable energy, which is enough for 3,000 homes.

Western Farmers Electric Cooperative

East Kentucky Power Cooperative, a G&T in Winchester, Ky., markets environmentally friendly energy through its EnviroWatts℠ program, which includes three landfill gas-to-electricity generating facilities. East Kentucky estimates that signing up for only one block per month of the EnviroWatts℠ for a year has the same benefit as reducing imported crude oil by more than two barrels per year, or taking the family car off the road for three months.

Wabash Valley Power Association in Indianapolis operates 7 landfill gas power plants with a capacity exceeding 19 megawatts. They have plans to construct additional landfill units totaling more than 13 megawatts.

FUEL CELL ENERGY

The Cooperative Research Network's Transportable Fuel Cell Demonstration was a three-year national tour of a 200-kilowatt mobile fuel cell, which accumulated more than 20,000 hours of operation at three highly diverse co-op sites. This experience laid the foundation for constructing a 1-megawatt Phosphoric Acid Fuel Cell Power Plant, dedicated in August 2000 by Chugach Electric Association in Anchorage, Alaska, which operated the system for the local post office.

SOLAR ENERGY

In Texas, electric co-ops have adapted solar power systems to provide electricity for stock wells located in remote areas. Four co-ops have installed 65 solar electric systems that generate more than 30 kilowatts of capacity. Of the 75 electric cooperatives in the state, 57 have given their consumers the option to buy electricity through photovoltaic power programs, and several cooperatives have consumers on waiting lists. Many cooperatives across the Great Plains and the West sell or lease photovoltaic systems that operate water pumps for ranchers and farmers. In other instances, electric co-ops provide photovoltaic systems to homes in remote regions that are not connected to power grids.