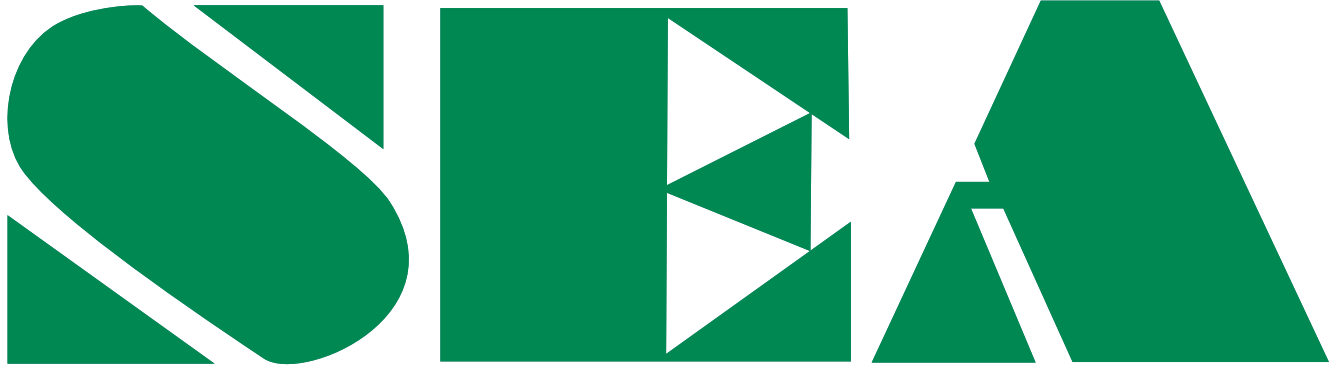




**NATIONAL ELECTRIC COOPERATIVE**



**STATEWIDE EDITORS ASSOCIATION**

# **Rural Electric Cooperative Glossary and Style Manual**

**June 2008**

# Letter A

**AC** Alternating current.

**access charge** A charge for the right to send electricity over another utility's wires.

**acid rain** Precipitation with a high acid level, produced when gases from a variety of sources are released into the atmosphere, absorbed by rain or other precipitation, and returned to Earth. It has been blamed for damaging the environment. A pH of 5.6 is considered normal for rainfall.

**ACRE** Action Committee for Rural Electrification.

**Action Committee for Rural Electrification (ACRE)** A political action committee that gives financial support to national candidates friendly to rural electric cooperatives. Spell out on first reference.

**active solar energy** Using pumps or fans to move stored energy from the sun's radiation to heat a home. (*See* passive solar energy.)

**Adopt an Urban Congressman** A program through which representatives of local cooperatives call on urban members of the U.S. Congress to explain concerns of rural America; coordinated by the National Rural Electric Cooperative Association.

**aggregators** Brokers, utilities or other parties that put retail customers into electric power-buying groups to negotiate better deals in a competitive marketplace.

**aggregate load** Similar businesses or groups that come together to form buying groups to negotiate a better rate for power.

**agribusiness** Includes all forms of business involved in agriculture, from producing, processing, storing and distributing commodities to manufacturing and distributing farm equipment or supplies.

**air-condition, air-conditioned, air conditioner, air conditioning** Air-condition is a verb. Air-conditioned is an adjective. Air conditioner is a noun. Air conditioning can be a noun or an adjective; if used as an adjective, use a hyphen.

**air-to-air heat pump** A heating and cooling device that uses electricity to move heat from the outside air into a building in winter, reversing the process for air conditioning in the summer. Also called air-source heat pump.

**air-source heat pump** (*See* air-to-air heat pump.)

**Alabama Living** Official publication of the Alabama Rural Electric Association.

**Alabama Rural Electric Association (AREA)** The Montgomery-based statewide service organization for Alabama's electric cooperatives. Official publication is *Alabama Living*.

**Alaska Rural Electric Cooperative Association, Inc. (ARECA)** The Anchorage-based statewide service organization for Alaska's electric cooperatives. Official publication is *Ruralite*.

**all-requirements power contract** An agreement by which a distribution system agrees to purchase all of its wholesale electric power from a single power supplier; primarily used by rural and municipal electric systems.

**all-terrain vehicle (ATV)** Three- or four-wheel vehicle with a motorcycle engine designed for off-road use. Used by electric cooperatives for line inspection and other tasks.

**alternating current (AC)** A flow of electricity through a conductor that continuously reverses its direction of flow, in contrast to direct current (DC). Nearly all electricity generated in the United States is alternating current. (*See* direct current.)

## Letter A (cont.)

**alternative fuels** Sources of heat energy other than coal, nuclear power, natural gas or oil used to generate electricity; sources are usually renewable materials such as wood chips, solar power, wind power or garbage.

**AM** Amplitude modulation.

**American Public Power Association (APPA)** A Washington, D.C.-based national service organization representing publicly owned electric utilities.

**ampere** (a) A measure of how much electricity is moving through a conductor. Amperes equal watts divided by volts; a 1,000-watt heater at 120 volts draws 8.33 amps. Term is commonly used to indicate the size of circuit breakers and fuses. Abbreviation is amp, acceptable on all references. (See Ohm's Law.)

**amplitude modulation** A radio broadcast system. AM is acceptable in all references. (See frequency modulation.)

**annual meeting** Once-a-year gathering of members held according to a cooperative's bylaws for the purpose of electing directors and conducting other business.

**anthracite** A hard, high-energy coal with high carbon content and little volatile matter most commonly mined in the northeastern United States.

**APPA** American Public Power Association.

**area coverage** The extension of electric service to all applicants in a service area without regard to remoteness and at no additional charge; a basic tenet of electric cooperatives.

**Arizona statewide** (See Grand Canyon State Electric Cooperative.)

**Arkansas Electric Cooperative, Inc. (AECI)** The Little Rock-based statewide service organization for Arkansas' electric cooperatives. Official publication is *Rural Arkansas*.

**ash** The residue remaining after complete combustion of coal. (See bottom ash, fly ash, slag.)

**assn.** Abbreviation for association; used chiefly in footnotes, captions, tables, etc., where space is at a premium. Spell out in normal text.

**Association of Illinois Electric Cooperatives (AIEC)** The Springfield-based statewide service organization for Illinois' electric cooperatives. Official publication is *Illinois Country Living*.

**Association of Louisiana Electric Cooperatives (ALEC)** The Baton Rouge-based statewide service organization for Louisiana's electric cooperatives. Official publication is *Louisiana Country*.

**Association of Missouri Electric Cooperatives (AMEC)** The Jefferson City-based statewide service organization for Missouri's electric cooperatives. Official publication is *Rural Missouri*.

**Atomic Energy Commission** (See Nuclear Regulatory Commission.)

**ATV** All-terrain vehicle.

**average cost** The revenue requirement of a utility divided by the utility's sales.

**avoided cost** Costs a utility would otherwise have to pay to generate electricity it purchased from another source.

## Letter B

**backup, back up, Backup** is a noun or an adjective. Back up is a verb.

**backup power** Electricity that is supplied when regularly used generating units are not in service because of emergencies, outages or periods of scheduled maintenance.

**Banks for Cooperatives (BCs)** Financial institutions that, as a part of the federal Farm Credit System, offer a complete line of credit and leasing services to agricultural cooperatives, rural utilities, and other eligible customers. The three BCs are the CoBank National Bank for Cooperatives, headquartered in Denver; the St. Paul Bank for Cooperatives, headquartered in St. Paul, Minn.; and the Springfield Bank for Cooperatives, headquartered in Springfield, N.Y.

**barrel (bbl)** A measurement equal to 42 gallons. A barrel of No. 6 or bunker C oil is commonly considered to weigh 300 pounds and have an energy content of about 6.32 million Btu. However, these figures can vary from one oil field to another.

**base load** The minimum amount of electric power delivered or required from a generating system over a specified period of time; usually measured in megawatts.

**base rate** The portion of the total electric rate that covers the cost of doing business unrelated to fuel expenses.

**base-load plant** A generating plant that provides the basic amount of electric power needed year-round; normally a large, efficient power plant having a low cost per kilowatt-hour generated.

**bbl** Barrel.

**BCs** Banks for Cooperatives.

**biomass conversion** The process of producing fuels or energy from renewable organic matter such as plants or animal wastes; fuel produced by this process is sometimes used to generate electricity.

**bituminous coal** A high-energy soft coal that ranks below anthracite in energy value; includes most of the coal mined in the United States.

**blackout** A total power failure over a large area; usually caused by the failure of major generating equipment or transmission facilities.

**block rate** A charge for electricity under which the cost per kilowatt-hour changes as more kilowatt-hours are sold; for example, the first 100 kwh may cost 10 cents per kwh, the next 100 kwh may cost 8 cents per kwh and all additional kwh may cost 6 cents per kwh. Under this type of rate, charges may also increase as additional increments are reached.

**Bonneville Power Administration (BPA)** One of four regional federal agencies marketing electricity generated primarily from federal dams. Based in Portland, Ore., BPA sells power in six northwestern states. (*See* power marketing administrations.)

**bottom ash** Slag or other residue remaining in the boiler after coal is burned. (*See* ash, fly ash, slag.)

**BPA** Bonneville Power Administration.

**British thermal unit (Btu)** Amount of heat needed to raise the temperature of one pound of water by one degree Fahrenheit.

**brownout** A small, temporary voltage reduction implemented by a utility to conserve electric power during periods of high use.

**Btu** British thermal unit. Singular and plural are the same.

## Letter B (cont.)

**bundling** A term referring to the vertical organization of a utility into generation, transmission and distribution segments. Bundling of an electric bill means the consumer is billed just one amount for all components involved in providing electricity. (See unbundling.)

**bus** An electrical conductor that serves as a common connection for two or more electrical circuits.

**bus-bar cost** The total cost of generating electricity, not including substation and transmission losses.

**bus-bar** Large conductors that carry electricity out of a power plant.

**business incubators** An organization that allows new, small businesses to pool secretarial, data processing and management services and benefit from subsidized rent during the critical start-up phase.

**bylaws** Rules for operating a cooperative approved by the membership.

**byproduct** Something produced in the making of something else.

## Letter C

**California statewide** (See Oregon Rural Electric Cooperative Association.)

**capacitor** A device that stores electrical charges and can be used to maintain voltage levels in power lines and improve electrical-system efficiency.

**capacity** The potential for generating power, measured in kilowatts, of a power plant. Also the electric load, measured in watts or kilowatts, of a piece of electrical equipment or system. Also called capability.

**capacity factor** The ratio of actual net electrical energy generation to the maximum possible energy that could have been generated if a plant operated at the maximum capacity rating for the same time period. The capacity factor is normally reported as a percentage.

**capital credits** Margins credited to members of a cooperative based on their purchases from the cooperative. Used by the cooperative as working capital for a period of time, then paid back to the membership. Also called patronage capital or equity capital. Capital credits should not be confused with profits, which are a return *on* capital. Retirement of capital credits is a return *of* member-furnished capital.

**captive customer** A customer who does not have a realistic alternative to buying power from the local utility even if that person had the legal right to buy from competitors.

**captive shipper** An industry, utility, farmer or other individual or entity who must rely on a single railroad line for shipping goods or receiving raw materials.

**Carolina Country** Official publication of the North Carolina Association of Electric Cooperatives, Inc.

**CBA** Cooperative Benefit Administrators, Inc.

**CBO** Congressional Budget Office

**ceiling cable** A heating system that radiates heat from the ceiling, heating air in the room by convection.

**central station service** Electricity provided by a utility rather than generated by the user.

## Letter C (cont.)

### **Certified Rural Electric Communicator (CREC)**

A person who has completed a professional certification program for electric cooperative communicators. The program attests to the candidate's professional communication skills and electric cooperative knowledge through portfolio judging and testing. The certification was started by the Council of Rural Electric Communicators and is administered by a separate certification board as required by federal trade law.

**CFC** National Rural Utilities Cooperative Finance Corporation. Spell out on first reference or use Cooperative Finance Corporation to avoid confusion with the abbreviation for chlorofluorocarbons.

**CFCs** Chlorofluorocarbons. Spell out on first reference to avoid confusion with the abbreviation for the National Rural Utilities Cooperative Finance Corporation.

**chain reaction** The self-sustaining series of atomic reactions that powers a nuclear reactor.

**cherry-picking** The process of taking another utility's most profitable load such as big industries or housing projects.

**chlorofluorocarbons (CFCs)** Chemicals used as refrigerants and propellants in aerosol cans. Studies have shown that these compounds are destroying the ozone layer in Earth's atmosphere and are completely or partially banned in many countries. Spell out on first reference to avoid confusion with the National Rural Utilities Cooperative Finance Corporation.

**circuit** A conductor, such as wire, through which electric current flows; also the path electric current takes from the power source to the device using the power and then back to the source.

**circuit breaker** A switch that opens an electric circuit when a short occurs or the system is otherwise abnormally stressed.

**circuit recloser** A device that protects electric lines by momentarily interrupting service when a fault occurs, then restoring power automatically when the fault is cleared. This keeps outages from occurring when temporary problems happen, like branches touching a line.

**class rate** An electrical rate given to similar types of electric users, such as residential or commercial.

**Clean Air Act** Established in 1970, the Clean Air Act is the federal law regulating air emissions. It gives the U.S. Environmental Protection Agency (EPA) authority to establish National Ambient Air Quality Standards (NAAQS) for the protection of the public and the environment. It has been amended several times since its passage.

**clean-air technology** Involves a new generation of emission-control devices that can remove pollutants at coal-fired power plants more efficiently and reliably than scrubbers.

**clean-coal technology** A broad term covering any type of new technology for reducing emissions from coal-fired power plants.

**climate change** efforts to reduce man-made greenhouse gas emissions.

**closed-loop heat pump system** A heat pump system that uses a loop of buried plastic pipe as a heat exchanger. Loops can be horizontal or vertical.

**coal gasification** The conversion of coal to a gas fuel.

**coal liquification** The conversion of coal to liquid fuel, commonly called a synthetic fuel.

**coal slurry** Finely ground coal suspended in water for transport through a pipeline.

## Letter C (cont.)

**Coefficient of Performance (COP)** The ratio of heating or cooling provided by a heat pump (or other refrigeration machine) to the energy consumed by the system under designated operating condition. The higher the COP, the more efficient the system.

**cogeneration** Using waste heat from (1) an industry to produce electricity, or (2) from electric utilities to produce steam for an industry or hot water for a building.

**Colorado Country Life** Official publication of the Colorado Rural Electric Association.

**Colorado Rural Electric Association** The Denver-based statewide service organization for Colorado's electric cooperatives. Official publication is *Colorado Country Life*.

**competitive transition charge** (See stranded costs.)

**Congressional Budget Office (CBO)** A nonpartisan arm of Congress that prepares fiscal estimates and budgets.

**conductor** A material that allows an electric current to pass through it. Also, the wire that carries electricity in an electric distribution or transmission system. Use wire or line to avoid confusion.

**connection charge** A one-time charge paid by a consumer for expenses involved in connecting electrical service to a home or a business.

**conservation** Careful use of resources. (See efficiency.)

**consolidation** The combination of two or more companies where all constituent companies cease to exist and a new company results. (See merger.)

**construction work in progress (CWIP)** A utility regulatory commission term. CWIP is not allowed in the rate base of regulated utilities. However, some commissions, including the Federal Energy Regulatory Commission, treat CWIP on a case-by-case basis.

**consumer loyalty** inclination of a consumer to choose one product, such as electricity, over time. It is the primary mission of rural electric cooperative statewide publications to promote it.

**contract demand** The maximum level of power a generating utility agrees to have available for delivery. Measured in kilowatts.

**co-op** Cooperative. Do not use coop, which is an enclosure that houses chickens.

**cooperative (co-op)** A member-owned business with membership open to those who use its services. Democratically controlled and operated on a nonprofit basis, a cooperative returns any margins to members on the basis of patronage. (See electric membership corporations, electric power associations, rural electric cooperatives and rural electric membership corporations.)

**Cooperative Benefit Administrators, Inc. (CBA)** A wholly owned subsidiary of NRECA that processes and administers medical, dental and disability claims.

**Cooperative Finance Corporation (CFC)** Short form for the National Rural Utilities Cooperative Finance Corporation, acceptable on all references.

**Cooperative Living** Official publication of the Virginia, Maryland and Delaware Association of Electric Cooperatives.

## Letter C (cont.)

**Cooperative Month** An annual October commemoration of the importance of cooperative organizations.

**cooperative principles** The cooperative principles are 1) open and voluntary membership; 2) democratic member control; 3) member economic participation including limited return on investment and return of surplus to members; 4) cooperative autonomy and independence; 5) cooperative education, training and information, 6) cooperation among cooperatives and 7) concern for community. (See Rochdale Principles.)

**cost-of-service rates** Rates for electric power based on covering the cost of building and operating facilities necessary to produce electricity.

**cove heater** A heating system installed on the wall near the ceiling, combining radiant and convective heat.

**cost-based rate** An electric rate structure in which each classification (residential, commercial, industrial, etc.) pays its fair share of the cooperative's cost so that no group subsidizes another.

**cost of service** The cost of providing a consumer-member with electric service, not including the cost of electricity.

**cost-of-service study** Determines how much it costs an electric utility to serve various classes of consumers; provides the basis for evaluating different discount and incentive programs and results in the development of cost-based rates.

**Council of Rural Electric Communicators** A group of professional communicators who work to improve communication with rural electric members. Short form is the council, acceptable on second reference; not CREC.

**Country Living** Official publication of Ohio Rural Electric Cooperatives, Inc.

**CREC** Certified Rural Electric Communicator.

**credit union** A financial cooperative formed by a group of people with a shared field of membership who join together to save money and make loans at the lowest possible cost.

**crossarm** A wooden support attached to a pole that holds conductor and insulators.

**current** A flow of electrically charged particles. The unit of measurement is the ampere.

**Currents** Official publication of the Grand Canyon State Electric Cooperative.

**customer charge** Sometimes used to recover fixed costs for serving individual customers. These fixed costs are recovered through a flat charge to the customer, regardless of the amount of energy used. (See connection charge, facilities charge or service charge.)

**customer choice** A term used interchangeably with retail wheeling, power supply choice and shopping for power in the electric utility industry. It means customers can choose the company that generates their electricity. See retail wheeling.

**customer transition charge (CTC)** A charge on an electric bill to recover a utility company's fixed cost for serving individual customers.

**CWIP** Construction work in progress.

**cyberspace** A general reference to doing things electronically by computer over the Internet.

**cycle** A single period of two phases in which alternating current reverses its direction and before returning to the first state. Alternating current consists of a succession of cycles.

## Letter D

**data information**, especially information organized for analysis or used as the basis for decision making. Usually takes plural verbs and pronouns when used as a collective noun.

**DC** Direct current.

**debt-to-equity ratio** The amount a system owes in relation to the amount it owns.

**declining block rates** A rate that decreases the cost of electricity with higher levels of use.

**degree day** A measurement of how much the average daily temperature varies from a standard reference temperature; used to estimate heating and cooling requirements for a building.

**Delaware statewide** (*See* Virginia, Maryland and Delaware Association of Electric Cooperatives.)

**delivery point** The connection between two lines where one utility supplies power to another utility's system.

**demand** The amount of electricity drawn from an electric system at a given time, measured in kilowatts. (*See* energy, demand charge, demand interval, demand meter, demand rate, load.)

**demand charge** A charge for electricity based on the maximum amount of a system's electricity a customer uses. Demand is measured in kilowatts.

**demand interval** Any period of time during which the flow of electricity is averaged to determine average demand.

**demand meter** A meter for electricity that also measures and records the maximum demand over a specified period of time.

**demand ratchet** (*See* ratchet.)

**demand rate** Charge based on a consumer's maximum kilowatt use; combines a charge for the peak demand placed on the system plus the charge for electricity used during the billing period.

**demand-side management** A utility program aimed at reducing consumer use of energy through conservation or efficiency measures. Use energy conservation to avoid confusion.

**Department of Energy** (DOE) The U.S. agency responsible for planning and allocating the nation's energy needs.

**Depression, the** (*See* Great Depression.)

**deregulation** Major reduction of government oversight in a segment of private industry. Not a good term to describe changes in the electric industry because regulation will not end. Instead use competition or re-regulation. (*See* restructuring.)

**desktop publishing** Producing a publication using computers and publishing software.

**desuperheater** A device for recovering heat from a heat pump or central air conditioner for use in heating or preheating water.

**direct access** The ability of a retail customer to purchase electricity directly from the wholesale market rather than through the local distribution utility.

**direct current** (DC) Electricity that flows through a conductor in a single direction. (*See* alternating current.)

**DIRECTV** A digital television system that comes to homes via an 18-inch DBS satellite antenna. Launched in 1994, the program is marketed by NRTC and Hughes Communications through electric and phone cooperatives.

## Letter D (cont.)

**disaggregation** Separating a vertically integrated utility into smaller, individually owned transmission, distribution and generation units.

**DISCO** Distribution company.

**dispersed generation** Small, decentralized generators such as diesel or combustion turbines, designed to supplement or replace power generated at large generating plants. Typically located at or near the point of use.

**distribution cooperative** An electric cooperative that purchases wholesale power and delivers it to consumer-members.

**distribution company** (DISCO) A utility providing power distribution services. Also called a wires company. Most electric cooperatives that don't own transmission or generation equipment are already DISCOs.

**distribution system** The poles, wire, and transformers used to deliver electric energy from a bulk power supplier to the consumer.

**diversification** Any business endeavor that is outside the core function or mission of the business.

**DOE** Department of Energy.

**down** Denotes an electrical system that is not on-line. If it is down, it is not operating.

**dragline** A large mobile excavator used in a strip mine to remove dirt and other material covering coal seams.

**dual-fuel heating** A system in which a supplemental heating source takes over when electricity is cut off during peak periods of electric use or extreme weather. Designed to keep costs down by making it unnecessary for a utility to call on more expensive sources of power during periods of high demand for electricity.

**duct work** Passages usually made of sheet metal through which hot or cool air is blown in forced-air systems.

## Letter E

**Earth, earth** Capitalize when reference is to Earth as a planet. As with other planets, term is not preceded by the article "the." Used lowercase, it means soil, ground, etc.

**earth-coupled heat pump** An efficient electrical device for heating and cooling a home or other building by moving heat into or out of the structure. It uses an antifreeze solution or refrigerant in a pipe buried in the ground to collect or disperse heat. (See geothermal system, ground-source heat pump, heat pump, water-source heat pump.)

**easement** An agreement allowing a utility to use property belonging to another individual or organization for a specific purpose, such as building a transmission line.

**East Central Reliability Coordination Agreement** (ECAR) One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**EC** Electric cooperative. Acceptable on second reference.

**Economic Regulatory Administration** (ERA) Administers regulatory programs for the Department of Energy, except those assigned to the Federal Energy Regulatory Commission. It oversees oil-pricing, allocation and import programs designed to ensure price stability and equitable supplies of crude oil, petroleum products and natural-gas liquids.

## Letter E (cont.)

**Edison Electric Institute** (EEI) An association of investor-owned utilities and electric-utility holding companies; based in Washington, D.C.

**EEI** Edison Electric Institute.

**EER** Energy efficiency rating.

**efficiency** A ratio of the work or energy output over the amount of energy input.

**EIS** Environmental impact statement.

**electric and magnetic fields** (EMF) Radiation surrounding conductors that carry electricity in motion; present wherever electric power is being used. These fields have been added to the list of environmental agents that may be a threat to public health. Also called electromagnetic fields.

**Electric Circus** A Federal Rural Electrification Administration traveling road show that demonstrated uses of electricity to rural people from 1938 to 1942.

**Electric Consumer** Official publication of the Indiana Statewide Association of Rural Electric Cooperatives, Inc.

**electric cooperative** A nonprofit utility owned by its members. Electric cooperatives generate and purchase wholesale power, own or arrange for the transmission of that power, distribute power and aggregate power purchases for various consumer groups.

**Electric Co-op Communication Service** An online information resource to statewide publications and electric co-op communicators.

**Electric Co-op Today** A weekly newsletter published by the National Rural Electric Cooperative Association covering political, economic, research and business issues relevant to the electric cooperative network.

**Electric Cooperatives of South Carolina, Inc.**

The Cayce-based statewide service organization for South Carolina's electric cooperatives. Official publication is *Living in South Carolina*.

**electric current** (See electricity.)

**electric energy** The flow of charged particles (electrons).

**electric membership corporations** (EMCs) Cooperatives formed to provide electricity to rural residents in Tennessee, Alabama, North Carolina, South Carolina and Georgia. (See cooperative, electric power associations, rural electric cooperative, rural electric membership corporation.)

**electric power associations** (EPAs) Cooperatives formed to provide electricity to rural residents in Mississippi. Spell out on first reference to avoid confusion with the U.S. Environmental Protection Agency. (See cooperative, electric membership corporation, rural electric cooperative, rural electric membership corporation.)

**Electric Power Associations of Mississippi, Inc.**

The Jackson-based statewide service organization for Mississippi's electric power associations. Official publication is *TODAY in Mississippi*.

**Electric Power Research Institute** (EPRI) A nonprofit research organization for electric utilities headquartered in Palo Alto, Calif.

**Electric Reliability Council of Texas** (ERCOT)

One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**electric thermal storage** (ETS) A type of heater that uses electricity during periods of low use to heat a ceramic material in an insulated cabinet to high temperatures, then releases the stored heat when electric use is high.

## Letter E (cont.)

**electric vehicle (EV)** A vehicle powered by electricity.

**electricity** Electric current or power that results from the movement of electrons in a conductor from a negatively charged point to a positively charged point. (See alternating current and direct current.)

**electromagnetic fields** (See electric and magnetic fields.)

**electronic meter reading** A system that uses a hand-held computer to record and store electric-use information from consumers' meters, then transmits that information to a central computer that prepares bills.

**electrostatic precipitator** An electronic pollution-control device that removes particles of fly ash from a power plant's waste gases.

**Ellis Award** Award presented annually by the National Rural Electric Cooperative Association to an electric cooperative employee or director for outstanding service; named for Clyde T. Ellis, NRECA's first general manager.

**e-mail** Communications done by computer either on a local area network or through the Internet.

**EMC** Electric membership corporation.

**EMF** Electric and magnetic fields. Used lowercase, emf is electromotive force.

**emf** Electromotive force.

**eminent domain** The power of a government body to condemn and use private property for public use after paying the property owner; sometimes used as a last resort by power companies constructing power lines.

**emission control equipment** (See pollution control equipment.)

**enchantment** Official publication of the New Mexico Rural Electrification Cooperative Association.

**energy** The capacity for doing work; may be natural or manufactured. In an electrical context, the use of power, measured in kilowatt-hours.

**energy audit** A study of residential, commercial or industrial buildings that shows energy users how to save money by using energy more efficiently.

**energy brokers** Companies that act as middlemen in an electronic marketplace in which electric power is priced, purchased and traded.

**energy charge** The part of an electric bill based on the amount of electricity used. (See connection charge, customer charge, facilities charge, service charge.)

**energy efficiency** Using less energy to perform the same function.

**energy efficiency rating (EER)** A measure of how efficiently an appliance uses energy. Determined by dividing the Btu per hour output by the number of watts used. A higher EER means greater efficiency. (See seasonal energy efficiency rating.)

**Energy Research and Development Administration (ERDA)** A federal agency created in 1974 to develop nuclear power and new energy sources; replaced by the U.S. Department of Energy.

**Energy Resources Conservation Loan (ERC Loan)** Loan made to consumers by some cooperatives for energy-saving home improvements and energy-efficient electric heating systems.

**energy service company (ESCO)** Following utility industry restructuring, certain services like marketing, billing and meter reading would be performed by energy service companies that are separate from a utility's other segments of generation, transmission and distribution.

## Letter E (cont.)

**environmental impact statement (EIS)** A report required by many state and federal regulators that outlines the likely environmental consequences of building and operating large-scale facilities such as power plants.

**Environmental Protection Agency (EPA)** The federal agency that develops rules and regulations for environmental protection and monitors utilities and other industries. Spell out on first reference to avoid confusion with the acronym for electric power associations.

**EPA** Environmental Protection Agency. Spell out on first reference to avoid confusion with electric power associations.

**EPAs** Electric power associations. Spell out on first reference to avoid confusion with the Environmental Protection Agency.

**EPRI** Electric Power Research Institute.

**equity capital** (*See* capital credits.)

**ERA** U.S. Economic Regulatory Administration.

**ERC** Loan Energy Resources Conservation Loan.

**ERDA** U.S. Energy Research and Development Administration.

**ESCO** Energy service company.

**ethanol** A grain alcohol, largely produced from fermented and distilled corn; used as an octane-enhancer in gasoline.

**ETS** Electric Thermal Storage.

**EV** Electric vehicle.

**Executive Order 7037** Order issued by President Franklin D. Roosevelt on May 11, 1935, establishing the Rural Electrification Administration as part of the federal unemployment relief program.

**exit fee** A fee that may be charged when an electric utility customer switches power suppliers.

**externality** Hidden costs of an energy source or costs not covered in the price of fuel, such as the cost of cleaning up acid rain.

## Letter F

**facilities charge** The part of a customer's electricity bill paid as reimbursement for facilities used to generate, transmit and distribute electricity. (*See* connection charge, customer charge, energy charge and service charge.)

**Farm Credit Leasing Services Corporation** Provides leasing services to rural utilities in cooperation with the Banks for Cooperatives, which are a part of the Farm Credit System; headquartered in Minneapolis, Minn., with field offices in nine states.

**FASB** The Financial Accounting Standards Board. Acceptable on second reference.

**FEA** Federal Energy Administration.

**Federal Energy Administration (FEA)** Established by Congress in 1974 to ensure a sufficient energy supply for the United States and that priority needs are met during energy shortages. Replaced by the U.S. Department of Energy in 1977.

**Federal Energy Regulatory Commission (FERC)** Formed in 1977 to set and enforce the wholesale electric rates that investor-owned utilities charge rural electric cooperatives and other wholesale customers; also licenses hydroelectric projects. It is part of the U.S. Department of Energy, but functions independently.

## Letter F (cont.)

**Federal Financing Bank (FFB)** A government agency created in 1974 to coordinate the borrowing of federal agencies that provide loan guarantees.

**federal power marketing administrations** (*See* power marketing administrations.)

**federated cooperative** A cooperative composed of smaller cooperatives.

**Federated Rural Electric Insurance Exchange**  
The Lenexa, Kansas company that is the leading provider of property and casualty insurance for rural electric utilities in 40 states.

**FERC** Federal Energy Regulatory Commission.

**FFB** Federal Financing Bank.

**Financial Accounting Standards Board** An independent organization recognized as the accounting profession's chief rule making body. Auditors, industry, government and professional associations frequently submit topics to FASB to clarify various accounting issues. After a hearing and comment period, FASB may issue a new "Statement of Financial Accounting Standards." These statements impact accounting requirements for virtually all businesses that must issue financial reports.

**Finding of No Significant Impact statement** (FONSI) A document from the Federal Rural Utilities Service stating that a given project will have no significant impact on the environmental, cultural, historical or archeological resources of the area affected; necessary before a project funded by the Rural Utilities Service can proceed.

**firm energy** Electricity guaranteed to be available at all times from a power supplier.

**first in, first out** A method of retiring capital credits where the earliest credits are retired first.

**fission** (*See* nuclear fission.)

**fixed costs** Expenses that stay the same regardless of other expenses or the level of sales. A distribution cooperative's fixed costs would include rent, utilities, taxes and depreciation on buildings.

**flashover** An abnormal electrical discharge or arc, as from a high-voltage power line to a ground or between two pieces of equipment.

**flat rate** Charged to consumers who pay the same rate for each kilowatt-hour of electricity used, regardless of the amount used. (*See* block rate, class rate, cost-based rate, industrial rate, offset rate, step rate, ratchet.)

**flip-flop** Practice of changing from one electric utility to another, usually due to rate differences. This practice is illegal in some states but weak laws make it difficult to enforce.

**Florida Reliability Coordinating Council (FRCC)**  
One of 10 regional reliability councils designed to provide a way for North American utilities to coordinate their planning and operations.

**Florida Rural Electric Cooperative Association (FRECA)** The Tallahassee-based statewide service organization for Florida's electric cooperatives.

**Florida Living** For-profit publication used by some of Florida's electric cooperatives to communicate with their members.

**flue gas** The mixture of gases and fly ash leaving the furnace in a coal-fired boiler. (*See* pollution control.)

**fluidized-bed combustion** A method of burning coal to achieve lower emissions by combining coal with limestone or other similar material held in suspension by air moving upward through the boiler.

**fly ash** Tiny solid particles of ash that escape the furnace when coal is burned; removed by pollution-control equipment. (*See* ash, bottom ash, slag.)

**FM** Frequency modulation.

## Letter F (cont.)

**FONSI** Finding of No Significant Impact statement.

**forced outage** The period of time during which a power plant is scheduled to operate but is unable to do so because of breakdowns or other unforeseen circumstances.

**fossil fuel** Materials such as coal, oil or natural gas used to produce heat or power; also called conventional fuels. These materials were formed in the ground millions of years ago from plant and animal remains.

**franchise** A license granted by a government entity giving a utility the right to serve customers.

**frequency modulation** (FM) A form of radio transmission characterized by low static. FM is acceptable in all references. (*See* amplitude modulation.)

**fuel adjustment clause, fuel clause** A correction or modification of a consumer's monthly electric bill caused by an increase or decrease in the cost of an electric utility's fuel supply. This adjustment eliminates the need for a new rate approval each time fuel costs change. Also called power-cost adjustment.

**fuel cells** Devices that convert the chemical energy of fuels directly into electricity.

**fuel cost** The total cost of fuel delivered to a power plant, including freight and other transportation charges, unloading costs and maintenance and mine reclamation costs.

**fuel reprocessing** (nuclear) Chemical separation of used nuclear-reactor fuel into plutonium, reusable uranium and waste products.

**fuse** A protective device for electric circuits containing a wire designed to melt and open the circuit under abnormally high electric loads. (*See* circuit breaker.)

**fusion** (*See* nuclear fusion.)

## Letter G

**GAO** General Accounting Office

**G&T** Generation and transmission cooperative. Acceptable on second reference. Plural is G&Ts.

**GENCO** Generation company.

**generation and transmission cooperative** (G&T) A power-supply cooperative owned by a group of distribution cooperatives. G&Ts generate power or purchase it from public- or investor-owned utilities, or both. Spell out on first reference.

**generation company** (GENCO) A company that generates electricity for sale to distribution companies.

**generation plant** A plant that has generators and other equipment for producing electricity.

**generator** A machine that converts mechanical energy into electrical energy.

**GeoExchange** Geothermal system reference. *See* geothermal system.

**George W. Haggard Memorial Journalism Award** (*See* Haggard Award.)

**GEORGIA Magazine** Official publication of the Georgia Electric Membership Corporation.

## Letter G (cont.)

### **Georgia Electric Membership Corporation**

(GEMC) The Tucker-based statewide service organization for Georgia's electric membership corporations. Official publication is *GEORGIA Magazine*.

**geothermal energy** Natural heat contained in the rocks, hot water, and steam of Earth's subsurface; can be used to generate electricity and heat homes and businesses.

**Geothermal Heat Pump Consortium** Washington, D.C. based group promoting geothermal systems.

**geothermal power** Electricity made by a generator powered by steam or hot water trapped and warmed below Earth's surface by Earth's internal heat.

**geothermal system** An efficient electrical device for heating and cooling a home or other building by moving heat into or out of the structure. It uses an antifreeze solution or refrigerant in a pipe buried in the ground to collect or disperse heat. (See earth-coupled heat pump, ground-source heat pump, heat pump, water-source heat pump.)

**GFCI** Ground-fault circuit interrupter. Acceptable on second reference.

**gigawatt** (gw) A measure of electric capacity equal to 1 billion watts or 1 million kilowatts. (See watt.)

**global warming** A gradual warming of Earth's atmosphere thought by some to be caused by increased concentrations of gases such as carbon dioxide in the atmosphere. Human activities such as the burning of fossil fuels increase concentrations of these gases, which absorb outgoing radiation and radiate more heat back toward Earth. (See greenhouse effect and greenhouse gases.)

**General Accounting Office** (GAO) A nonpartisan congressional agency that audits federal programs.

**Grand Canyon State Electric Cooperative Association, Inc.** (GCSECA) The Phoenix-based statewide service organization for Arizona's electric cooperatives and one California electric cooperative. Official publication is *Currents*.

**Great Depression, the** The economic crisis and period of low business activity in the United States and elsewhere that began with the stock market crash in October 1929 and continued through the 1930s. Capitalize Depression when referring to this specific crisis, but lowercase otherwise.

**greenhouse effect** A natural phenomenon caused by the trapping of heat in Earth's atmosphere due to a buildup of carbon dioxide and other gases in the atmosphere. James Hansen, a NASA scientist, announced the greenhouse effect in 1988. Whether the greenhouse effect is caused by man-made or natural factors, or both, is hotly debated. (See global warming and greenhouse gases.)

**greenhouse gases** Carbon dioxide, methane and other gases that may contribute to the warming of Earth's atmosphere.

**grid** A system of interconnected high-voltage transmission lines and power-generating facilities that allows bulk-power suppliers to share resources on a regional basis. This system provides emergency generation and transmission.

**ground-fault circuit interrupter** (GFCI) A device that instantly breaks the circuit when a short develops. Required for outlets that are used in bathrooms, kitchens, outdoors or wherever electrical equipment might come into contact with water. Spell out on first reference.

## Letter G (cont.)

**ground-source heat pump** An efficient electrical device for heating and cooling a home or other building by moving heat into or out of the structure. It uses an antifreeze solution in a pipe buried in the ground to collect or disperse heat. (See earth-coupled heat pump, geothermal system, heat pump, water-source heat pump.)

**guaranteed loan** A loan that a third party agrees to repay if the borrower defaults; the Rural Utilities Service has historically acted as the third party for some electric cooperatives.

**Guaranteed Loan Program** traditionally benefits G&Ts, although distribution co-ops are also eligible to borrow from it. Under the program, RUS provides a 100 percent government guarantee. These guarantees can then be funded through any source at market interest rates.

**gw** Gigawatt.

## Letter H

**Haggard Award** Award presented by the National Rural Electric Cooperative Association to recognize the statewide publication judged best in “lucid, forthright contributions to electric cooperative objectives”; named for George W. Haggard, first editor of the Texas statewide publication.

**hardship loan** Federal Rural Utilities Service loans made to electric co-ops that have rates that are at least 20 percent above the average for all utilities in the state and serve consumers whose household income is below the statewide average. They are made on a first-come, first-served basis at 5 percent interest. (See insured loan, municipal rate loan.)

**heat exchanger** A device designed to transfer heat between two physically separated fluids or mediums of different temperatures.

**heat pump** A system supplying both heating and cooling to a structure by moving heat into or out of the structure. It heats in winter by concentrating heat from outside air, ground or water and moving it into the building; it reverses the cycle in the summer to provide air conditioning. (See air-to-air heat pump, earth-coupled heat pump, geothermal system, ground-source heat pump, water-source heat pump.)

**heat sink** The medium — heat, water or earth — which receives heat rejected from a heat pump.

**hertz** (Hz) An international measure of frequency or vibration equal to 1 cycle per second. The alternating current frequency used in North America is 60 hertz. In Europe and some other parts of the world, it is 50 hertz. Singular and plural forms are the same.

**high voltage** Voltage in a power line higher than the 120 to 240 volts used in most residences.

**home energy audit** (See energy audit.)

**homepage** A site on the World Wide Web.

**horsepower** (hp) A measure of power equal to 746 watts. Always spell out.

**horsepower-hour** A measure of the work performed by one horsepower exerted for one hour.

**hydroelectric plant** A facility that produces electric energy by releasing water from a reservoir through generators. Short form is hydro.

**hydroelectric energy** Electricity generated by flowing water.

**hydropower** Short form for hydroelectric power.

**hp** Horsepower. Always spell out.

**Hz** Hertz. Singular and plural forms are the same.

# Letter I

**Idaho Consumer-Owned Utilities Association, Inc.** (ICUA) The Boise-based statewide service organization for Idaho's consumer-owned electric utilities. Official publication is *Ruralite*.

**IEEE** Institute of Electrical and Electronic Engineers, Inc.

**Illinois Country Living** Official publication of the Association of Illinois Electric Cooperatives.

**Illinois statewide** (*See* Association of Illinois Electric Cooperatives.)

**incentive rate** A discount to encourage consumption of electricity during periods of low power use.

**incubators** (*See* business incubators.)

**independent power producer** (IPP) A private entity that generates electricity and sells it to other businesses, including utilities.

**independent system operator** (ISO) A neutral operator responsible for maintaining instantaneous balance of the grid system by controlling the dispatch of flexible power plants to ensure that loads match resources available.

**Indiana Statewide Association of Rural Electric Cooperatives, Inc.** The Indianapolis-based statewide service organization for Indiana's rural electric membership corporations. Official publication is *Electric Consumer*.

**induction** The process by which an electrical conductor becomes electrified when near a charged body.

**industrial rate** A special rate for industrial customers of electric cooperatives.

**information superhighway** A term used to describe the flow of information through computer connections, the Internet and other high-tech devices.

**Institute of Electrical and Electronics Engineers, Inc.** (IEEE) An organization that develops standards for electrical engineers.

**insulation** Material used to prevent the escape of electricity, heat or sound.

**insulators** Devices that support electric wires and prevent undesired flow of electricity; usually made of glass or porcelain.

**insured loan** Money lent to an electric cooperative by the Federal Rural Utilities Service that benefits distribution cooperatives. (*See* hardship loans, municipal rate loans.)

**Integrated Gasification Combined Cycle** (IGCC) A power generation system which converts fossil fuel into a clean-burning gas similar to natural gas, then burns it to generate electricity.

**interchange** Energy sold to one electric utility by another.

**interconnection** A tie permitting the flow of electricity between the facilities of two electric systems.

**Internet** A worldwide network of other computer networks organized originally for the U.S. military but extended to government, academic and commercial research and communications.

**interruptible rate** A lower rate for customers who let the utility turn off their electricity temporarily during periods of high demand.

**inverted rate** An electric rate structure that charges more per kilowatt-hour as consumption increases.

**investor-owned utility** (IOU) A stockholder-owned power company that generates and distributes electric energy for a profit.

**IOU** Investor-owned utility. Acceptable on second reference.

## Letter I (cont.)

### **Iowa Association of Electric Cooperatives**

(IAEC) The Des Moines-based statewide service organization for Iowa's electric cooperatives. Official publication is *Iowa REC News*.

***Iowa REC News*** Official publication of the Iowa Association of Electric Cooperatives.

**IPP** Independent power producer

**ISO** Independent system operator.

## Letter J

**journeylevel lineworker** A nonsexist replacement-term for journeyman lineman.

**journeyman lineman** An electrical lineworker who has completed apprenticeship training and has learned the trade. To avoid sexist references, use *journeylevelineworker*.

## Letter K

***Kansas Country Living*** Official publication of Kansas Electric Cooperatives, Inc.

**Kansas Electric Cooperatives, Inc.** (KEC) The Topeka-based statewide service organization for Kansas' electric cooperatives. Official publication is *Kansas Country Living*.

**Katrina** Hurricane that leveled communities and destroyed much of the electrical infrastructure along the Gulf Coast in the states of Alabama, Louisiana and Mississippi after making landfall Aug. 29, 2005.

**Kentucky Association of Electric Cooperatives, Inc.** (KAEC) The Louisville-based statewide service organization for Kentucky's electric cooperatives. Official publication is *Kentucky Living*.

***Kentucky Living*** Official publication of the Kentucky Association of Electric Cooperatives, Inc.

**key account** Any cooperative load deemed vital to the financial well-being of the cooperative.

**kilovolt** (kv) 1,000 volts. The amount of electric force carried through a high-voltage transmission line is measured in kilovolts.

**kilovolt-ampere** (kva) 1,000 volt-amperes. (*See* volt-ampere.)

**kilowatt** (kw) The basic unit of electric demand, equal to 1,000 watts.

**kilowatt-hour** (kwh) A unit of energy or work equal to 1,000 watt-hours. The basic measure of electric energy generation or use. A 100-watt light bulb burning for 10 hours uses one kilowatt-hour.

**kv** Kilovolt.

**kva** Kilovolt-ampere.

**kw** Kilowatt.

**kwh** Kilowatt-hour.

## Letter L

**laser** A device used in drilling and cutting, alignment and guidance, and in surgery; the optical properties are exploited in holography, reading bar codes, and in recording and playing compact discs. Acronym stands for “light amplification by stimulated emission of radiation.”

**least-cost planning** Efforts by utilities and regulators to meet growing power needs without building new plants. Methods include buying power from other utilities, making maximum use of transmission grids and developing conservation programs.

**lightning arrester** A device that protects consumer electric equipment against damage caused by power surges from power-line lightning strikes.

**lignite** A low-sulfur, low-energy coal, found primarily in the upper Great Plains.

**line** A carrier of electricity on an electric power system.

**line loss** Electric energy lost in the process of transmitting it over power lines.

**lineman** A person who builds and maintains electric lines. To avoid sexist references, use lineworker.

**lineworker** A nonsexist replacement term for lineman.

**Living in South Carolina** Official publication of the Electric Cooperatives of South Carolina, Inc.

**load** The amount of electric power drawn at a specific time from an electric system, or the total power drawn from the system. Peak load is the amount of power drawn at the time of highest demand.

**load control** (*See* load management program, interruptible rate.)

**load curve** A graph plotting a system’s use of electricity over a period of time.

**load factor** The ratio of average demand to peak demand. It is a measure of efficiency that indicates whether a system’s electrical use over a period of time is reasonably stable or if it has extreme peaks and valleys. A high load factor usually results in a lower average price per kilowatt-hour than a low load factor.

**load forecasting** Predicting a system’s load and kwh sales growth.

**load management program** A program by which an electric system seeks to control its customers’ use of electricity so as to reduce demand on the system at a time of maximum use. Load management can involve such techniques as voltage reduction, cutting off air conditioners and water heaters for short periods by remote control and controlling how long irrigation pumps run. Co-ops with load management usually have rate incentives to promote their programs (*See* interruptible rate.)

**loop transmission system** An electric distribution system that allows consumers to receive electricity from more than one direction, allowing a backup in case of an outage.

**loss control** Program for preventing or limiting financial and personnel loss from accidents.

**Louisiana Country** Official publication of the Association of Louisiana Electric Cooperatives.

## Letter M

**MAAC** Mid-Atlantic Area Council.

**MAIN** Mid-America Interconnected Network.

**MAPP** Mid-Continent Area Power Pool.

**marginal-cost pricing** A method of determining the selling price of a commodity when the fixed costs are paid by units already sold so that the next units can be sold for less.

**margin** The difference between a cooperative's income and its expenses; returned to members in the form of capital credits as the cooperative's financial status allows.

**market-based rates** Rates for electric power generation based solely on what can be obtained in an open, competitive marketplace. This differs from cost-of-service rates which are tied to building and operating facilities necessary to producing electricity. (*See cost-of-service rates*).

**maximum drawdown** The lowest reservoir level at a hydroelectric plant that would occur during the severest drought.

**megawatt** (mw) Equal to 1,000 kilowatts or 1 million watts. (*See kilowatt*.)

**megawatt-hour** (mwh) Equal to 1,000 kilowatt-hours or 1 million watt-hours. (*See kilowatt-hour*.)

**member** Someone who receives power from an electric co-op. Use instead of customers.

**merger** The combination of two or more companies with one of the companies retaining its identity.

**meter** A device used to measure and record the amount of electricity used by a consumer.

**meter tampering** The unlawful and dangerous practice of interfering with the operation of a meter, generally to avoid paying for electricity used.

**Michigan Country Lines** Official publication of the Michigan Electric Cooperative Association.

**Michigan Electric Cooperative Association** (MECA) The Lansing-based statewide service organization for Michigan's electric cooperatives. Official publication is Michigan Country Lines.

**Mid-America Interconnected Network** (MAIN) One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**Mid-Atlantic Area Council** (MAAC) One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**Mid-Continent Area Power Pool** (MAPP) One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**Mid-West** Mid-West Electric Consumers Association.

**Mid-West Electric Consumers Association** A lobbying and planning organization of more than 340 consumer-owned electric utilities and federal power organizations in the nine-state Missouri River drainage basin, formed to obtain dependable low-cost electric power. Use short form, Mid-West, on second reference; do not use acronym MECA.

**mill** One-tenth of a cent. Used as a measure of electric energy bought and sold.

**Minnesota Rural Electric Association** (MREA) The Maple Grove-based statewide service organization for Minnesota's electric cooperatives.

**Mississippi statewide** (*See Electric Power Associations of Mississippi, Inc.*)

## Letter M (cont.)

**Missouri statewide** (See Association of Missouri Electric Cooperatives.)

**Montana Electric Cooperatives' Association** The Great Falls-based statewide service organization for Montana's electric cooperatives. Official publication is *Rural Montana*.

**municipal** Electric distribution system owned by a city to provide service for its residents. Do not use short form muni.

**municipal rate loan** Money loaned to an electric cooperative by the Federal Rural Utilities Service with interest based on the current market yield on municipal bonds. (See hardship loan, insured loan.)

**mw** Megawatt.

**mwh** Megawatt-hour.

## Letter N

**National Ambient Air Quality Standards** Levels of pollutants that can be present in the atmosphere without endangering public health and welfare; established by the U.S. Environmental Protection Agency.

**National Conference of State Legislators** (NCSL) An advisory council that provides services and information to state legislatures.

**National Country Market** (NCM) The Austin, Texas-based cooperative advertising network organized by the Statewide Editors Association to sell national advertising for rural electric cooperative statewide publications.

**National Electric Cooperative Statewide Editors Association** (SEA) A communications organization representing statewide rural electric cooperative communicators. Statewide Editors Association acceptable on all references.

**National Rural Electric Cooperative Association** (NRECA) The Arlington, Virginia-based national service organization representing about 1,000 electric cooperatives in the United States. Official publication is *Rural Electrification Magazine*. Also publishes *Electric Co-op Today*.

**National Rural Telecommunications Cooperative** (NRTC) The Herndon, Virginia-based national organization helping consumers secure high-quality and affordable telecommunications services; markets the *Rural TV* and *DIRECTV* programming package of television channels available by satellite. (See *Rural TV* and *DIRECTV*.)

**National Rural Utilities Cooperative Finance Corporation** (CFC) The Herndon, Virginia-based national cooperative that provides funds in the private capital markets to supplement loan funds available from the Rural Utilities Service. Cooperative Finance Corporation is acceptable on all references.

**National Telephone Cooperative Association** (NTCA) The Washington, D.C.-based service organization that represents about 450 telephone cooperatives and other independent telephone companies in the United States. Official publication is *Rural Telecommunications*.

**National Utility Training and Safety Education Association** (NUTSEA) An organization whose primary activities are job training, safety education and safety-program administration for electric cooperatives and related organizations.

**natural gas** A fossil fuel used for electric generation and space heating.

## Letter N (cont.)

**natural monopoly** A situation where one firm can produce a given level of output at a lower total cost than possible through competition.

**NCM** National Country Market.

**NCSL** National Conference of State Legislatures.

**Nebraska Rural Electric Association** (NREA) The Lincoln-based statewide service organization for Nebraska's rural public power districts. Official publication is *Rural Electric Nebraskan*.

**NERC** North American Electric Reliability Council.

**net generation** The total amount of electricity produced at a power plant less the amount of electricity used by the plant itself.

**Nevada Rural Electric Association** (NREA) Currently based in Pahump, Nevada. Official publication is *Ruralite*.

**New Jersey statewide** (See Pennsylvania Rural Electric Association.)

**New Mexico Rural Electrification Cooperative Association** (NMRECA) The Santa Fe-based statewide service organization for New Mexico's electric cooperatives. Official publication is *enchantment*.

**nitrogen oxides** Compounds of nitrogen and oxygen formed when fossil fuels burn. Don't use abbreviation NO.

**non coincident demand** The sum of individual uses of electricity that create a peak load on generation and distribution facilities.

**nonprofit** Business not entered into for the purpose of making money. Electric co-ops are nonprofit.

**non utility generators** A generator of electricity whose primary business is not power generation. (See cogeneration and independent power producer.)

**Norris-Rayburn Act** Legislation introduced in 1936 by Sen. George Norris and Rep. Sam Rayburn that continued the Rural Electrification Administration for 10 years as an independent lending agency.

**Northeast Power Coordinating Council** (NPCC) One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**North American Electric Reliability Council** (NERC) The Princeton, N.J.-based federation of 10 regional reliability councils designed to provide a way for North American utilities to coordinate their planning and operations.

**North Carolina Association of Electric Cooperatives, Inc.** (NCAEC) The Raleigh-based statewide service organization for North Carolina's electric membership corporations. Official publication is *Carolina Country*.

**North Dakota Association of Rural Electric Cooperatives, Inc.** (NDAREC) The Mandan-based statewide service organization for North Dakota's electric cooperatives. Official publication is the *North Dakota REC/RTC Magazine*.

**North Dakota REC/RTC Magazine** Official publication of the North Dakota Association of Rural Electric Cooperatives, Inc.

**not for profit, not-for-profit** Organization established with the sole purpose of providing a service to society and not for making a profit. Hyphenate when used as an adjective. (Example: A not-for-profit business.)

**NPCC** Northeast Power Coordinating Council.

**NRC** Nuclear Regulatory Commission.

**NRECA** National Rural Electric Cooperative Association. Acceptable on second reference.

## Letter N (cont.)

**NRTC** National Rural Telecommunications Cooperative.

**NTCA** National Telephone Cooperative Association.

**nuclear energy** Energy produced from the splitting of atoms. (See nuclear fission, nuclear fusion, nuclear power.)

**nuclear fission** The splitting of an atomic nucleus, resulting in the release of large amounts of energy; the basic process a nuclear reactor uses to provide heat for the generation of electricity.

**nuclear fusion** The combination of two light nuclei to form a heavier nucleus with the release of some binding energy.

**nuclear power** Electric energy generated using heat produced by an atomic reaction. (See nuclear fission, nuclear fusion.)

**nuclear radiation** Invisible particles or waves given off by radioactive materials such as uranium.

**Nuclear Regulatory Commission (NRC)** The federal agency responsible for the licensing and safety of nuclear power plants; successor to the Atomic Energy Commission.

**NUTSEA** National Utility Training and Safety Education Association.

## Letter O

**OCR** Oil-circuit recloser.

**Occupational Safety and Health Administration (OSHA)** Department of Labor agency that sets standards for safe work places and enforces them through periodic inspections.

**off-peak power** Electricity supplied during periods of low system demand. (See system demand.)

**off-peak rates** Special lower rates for electricity used at times of low system demand.

**Office of Management and Budget (OMB)** The agency that prepares fiscal estimates and budgets for the White House.

**offset rate** Rate adjustment that allows a system to pass along certain changes to consumers.

**Ohio Rural Electric Cooperatives, Inc. (OREC)** The Columbus-based statewide service organization for Ohio's electric cooperatives. Official publication is *Country Living*.

**ohm** The amount of resistance overcome by one volt in causing one ampere to flow. The ohm measures resistance to current flow in electrical circuits.

**Ohm's Law** The strength of an unvarying electrical circuit is directly proportional to the electromotive force and inversely proportional to the resistance of the circuit. In other words, voltage is equal to current multiplied by resistance. Use the following formula:  $E=IxR$ , where E is voltage in volts, I is current in amps, and R is resistance in ohms.

**oil-circuit recloser (OCR)** (See circuit recloser.)

**Oklahoma Association of Electric Cooperatives (OAEC)** The Oklahoma City-based statewide service organization for Oklahoma's electric cooperatives. Official publication is *Oklahoma Living*.

**Oklahoma Living** Official publication of the Oklahoma Association of Electric Cooperatives.

**OMB** Office of Management and Budget

## Letter O (cont.)

**on-line, online** A generating plant that is operating is on-line. When an operational plant is not on-line, it is “down.” Online refers to communication over the Internet.

**open access** Permitting wholesale power suppliers and sellers to move their power over the transmission lines of other utilities.

**open-loop heat pump system** A heat pump system that uses groundwater from a well or surface water from a lake, pond or river as a heat source. The water is returned to the environment.

**operating expenses** The costs to a utility of generating electricity. In addition to costs of running a plant, includes maintenance expenses, taxes and depreciation.

**operating income** The amount of income remaining to a utility after operating expenses are deducted from operating revenues.

**operating revenues** Money received from selling a utility’s goods and services.

**Oregon Rural Electric Cooperative Association (ORECA)** The Salem-based statewide service organization for Oregon’s electric cooperatives and one of California’s three cooperatives. Official publication is *Ruralite*.

**OSHA** Occupational Safety and Health Administration.

**outage** Interruption of service to an electric consumer because a power plant, transmission line or other facility is not operating.

**ozone layer** The part of the upper atmosphere that contains concentrations of a form of oxygen that screens out ultraviolet radiation. Studies show this layer is being destroyed by chemicals from aerosol cans and refrigeration units. (See chlorofluorocarbons.)

## Letter P

**Pace Act Law** extending the life of the Federal Rural Electrification Administration indefinitely beyond the target expiration date of 1946; also set REA interest rates at 2 percent and lengthened loan term to 35 years.

**passive solar energy** Energy from the sun’s radiation that can be used to heat and to light without requiring complicated machinery. Usually controlled by building design and location.

**patronage capital** (See capital credits.)

**payback** A method of calculating how long it will take to recover the additional cost of a more efficient appliance or building material.

**PCA** Power-cost adjustment.

**PCBs** Polychlorinated biphenyls. Acceptable on all references.

**peak demand** The greatest demand placed on an electric system; measured in kilowatts or megawatts; also, the time of day or season of the year when that demand occurs.

**peak load** The amount of electric power required by a consumer or a system during peak demand; measured in kilowatts or megawatts.

**peak-load pricing** A system of charging higher rates for power used during high-use periods to discourage use at those times and reduce a system’s peak demand.

**peak-shaving plant** A power plant designed to operate during the system’s high-use period to reduce power supply shortages and demand charges.

## Letter P (cont.)

**peaking unit** Part of an electric generating plant used only at high-use periods to provide sufficient electric capacity for the system to meet its peak demand.

**Penn Lines** Official publication of the Pennsylvania Rural Electric Association.

**Pennsylvania Rural Electric Association (PREA)** The Harrisburg-based statewide service organization for Pennsylvania's electric cooperatives and New Jersey's one cooperative. Official publication is Penn Lines.

**percentage method** Retirement of capital credits to members by paying a portion of all capital credits in a member's account. This method ignores the time the money has been in the account. (See capital credits, first in, first out.)

**perm** Unit of measurement for the rate at which water moves through a membrane. Used to measure vapor barriers in home construction and remodeling.

**photovoltaics** Technology that produces electric power directly from sunlight. A common application is in solar-powered pocket calculators, but various equipment remote from electric distribution lines also uses the technology.

**plug-in, plug in** Use with hyphen to mean a receptacle that supplies electricity to appliances. Used without the hyphen, it means the act of connecting an appliance to a receptacle.

**PMAs** Power marketing administrations.

**pollution control** Steps taken to ease any harmful environmental effects resulting from the production of electricity.

**polychlorinated biphenyls (PCBs)** Once used as insulators in electric transformers, PCBs were found in the mid-1970s to be toxic and were banned from use. PCB is acceptable on all references.

**POOLCO** A statewide or regional power marketplace. Generators would supply power to the pool and purchasers would take from the pool based on market-driven rates.

**postage stamp rate** Blending high-cost and low-cost power so that all members pay the same rate; similar to the way postage is charged in that it costs the same amount to send a letter across the country as it does to send one down the street.

**power** In the context of electricity, the capacity of a generating unit, stated in kilowatts, never in kilowatt-hours.

**power cost adjustment (PCA)** (See fuel adjustment clause.)

**powerhouse** An electrical generating station.

**power line** A conductor carrying electricity from the generator to the supplier or the ultimate consumer. Two words.

**power marketer** A person or entity that buys power in bulk from one or more sources for resale to all classes of electric customers, including residential, commercial and industrial users but does not own its own generation or transmission facilities.

**power marketing administrations (PMAs)** The umbrella term for the Bonneville Power Administration (BPA), the Southeastern Power Administration (SEPA), the Southwestern Power Administration (SWPA) and the Western Area Power Administration (WAPA). The federally-owned PMAs sell power produced at federal hydropower projects, giving first priority to consumer-owned systems such as co-ops or municipals and making that power available at the cost of production under the Preference Principle.

**power pool** Two or more utility systems connected to increase reliability and operating efficiencies.

## Letter P (cont.)

**power supplier** A company that supplies the actual energy either by generating it or by arranging for its delivery to the consumer.

**power theft** Tampering with a meter to lower electric bills; a dangerous and illegal act.

**PPD** Public power district.

**Preference Principle** Legislative requirement giving nonprofit consumer-owned electric systems first purchase rights to federal hydroelectric power generated on the nation's rivers and streams. Preference is acceptable on second reference.

**Price Anderson Act** Federal legislation establishing a liability insurance program for nuclear power plant operations.

**private power company** (*See* investor-owned utility.)

**privatization** Turning over government or public assets, such as power marketing agencies, to private interests to be operated for profit.

**Project SHARE** A program of the National Rural Electric Cooperative Association International Foundation, this project is designed to provide money, equipment and technical assistance to villages and communities in Third World countries that can't be helped under more formal arrangements. One aspect of the program sends them surplus equipment from U.S. cooperatives.

**public power district (PPD)** State-created political entity, similar to a school district, formed to provide power to a service area.

**Public Utilities Holding Company Act (PUHCA)** Federal legislation dating from 1935 designed to control corporate activities of investor-owned utilities.

**Public Utility Regulatory Policy Act (PURPA)** One of five parts of the National Energy Act passed by Congress in 1978. It is concerned with voluntary rate standards, cogeneration, small hydro loans, interconnections and wheeling and other regulated utility activities.

**PUHCA** Public Utilities Holding Company Act.

**PURPA** Public Utility Regulatory Policy Act.

**Purchased Power** Wholesale power purchased through a contract or on the spot market.

## Letter Q

**quad** A quadrillion British thermal units, equal to the energy contained in 8 billion gallons of gasoline, a year's supply for 10 million cars.

**quorum** Number of members who must be present to conduct cooperative business legally.

## Letter R

**rad** A measure of the amount of radiation absorbed by the human body.

**radiant energy** Energy traveling outward from a source with a wave motion, such as the energy of electromagnetic waves.

**radiation** Energy emitted as electromagnetic waves or as nuclear particles; a natural component of the environment and an inevitable byproduct of nuclear power. (*See* nuclear radiation.)

**radiator** A device that transfers heat to the air in a room by circulating steam or hot water through pipes.

**ratchet** A rate based on the maximum past or present electric demand so that a wholesale customer is billed for the costs of maintaining generating capacity even during months when capacity isn't entirely drawn on by the customer.

**rate** The cost per kilowatt-hour for electricity.

**rate base** The total value of a utility's plants, transmission lines, buildings and other equipment.

**rate of return** The percentage of profit a utility may earn from its electric rates; generally, it applies only to investor-owned utilities regulated by a state agency.

**REA** Rural Electrification Administration. (*See* Rural Utilities Service.)

**reactor** A complex machine that heats water to boiling, producing steam to turn a turbine that generates electricity. The heat for boiling the water is produced by the fission, or splitting, of uranium atoms. (*See* nuclear fission.)

**real-time pricing** A method of setting rates based on the actual cost of the electricity at the time it is used.

**REC** Rural electric cooperative. Acceptable on second reference.

**recloser** A device that isolates sections of electric lines to help prevent long-term outages and system damage.

**RECNET** A National Rural Electric Cooperative Association satellite television network that offers training and information programs for directors and employees of rural electric systems.

**regional meeting** A gathering of rural electric cooperative leaders from states within one of 10 regions of the National Rural Electric Cooperative Association.

**regulation** A governmental order with the force of law.

**reliability** A utility's ability to deliver uninterrupted electricity to its consumers.

**reliability council** (*See* North American Electric Reliability Council.)

**rem** Roentgen equivalent, man. A measure of radiation received by an individual. A dose of 100 rem will cause severe illness; 500 rem or more is considered fatal.

**REMC** Rural electric membership corporation. Plural is REMCs. Acceptable on second reference.

**renewable resources** Sources of energy that are naturally replenishable, including wind, solar, biomass, geothermal and wave energy.

## Letter R (cont.)

**re-regulation** Changing government oversight of an electric or other utility. A more accurate term than deregulation for the changes taking place in the electric industry.

**reserves** Extra generating capacity required to provide for variations in demand, load-forecasting error, loss of equipment and area protection. (See spinning reserve.)

**RESMA** Rural Electric Statewide Managers Association.

**restructuring** Changes in the electric utility industry resulting from the pressures of competition and deregulation trends. The term also refers to the reorganization of an electric utility. A more accurate term than deregulation to describe changes in the industry.

**retail competition** (See retail wheeling)

**retail wheeling** A system in which individual retail electric customers are allowed to choose their electric energy supplier. (See customer choice.)

**retrofit** Installation or replacement of equipment at a plant after the plant has been built.

**Revolving Fund** Now extinct, the Revolving Fund was eliminated as part of the federal government's credit reform measure implemented in 1991. It is short for Rural Electrification and Telephone Revolving Fund. Acceptable on all references.

**right of way** A strip of land owned by another party on which a utility places their facilities. Sometimes acquired through the right of eminent domain. Plural is rights of way. Hyphenate when used as an adjective (example: right-of-way crew). (See easement, eminent domain.)

**Rochdale Principles** A set of business guidelines drawn up by Charles Howarth, a member of the Rochdale Equitable Pioneers Society, a cooperative store founded in Rochdale, England. (See cooperative principles.)

**RTC** Rural telephone cooperative. Acceptable on second reference.

**RTFC** Rural Telephone Finance Cooperative.

**RUNet** Rural Utilities Network.

**Rural Arkansas** Official publication of Arkansas Electric Cooperative, Inc.

**Rural Business-Cooperative Service (RCBS)** The U.S. Department of Agriculture program that helps cooperatives and other rural businesses compete in a global market.

**Rural Economic and Community Development** A mission area of the U.S. Department of Agriculture created in 1994 to combine rural economic programs into one agency. Its programs are administered through three services: The Rural Utilities Service, the Rural Business-Cooperative Service and the Rural Housing and Community Development Service. (See Rural Utilities Service, Rural Business-Cooperative Service and Rural Housing and Community Development Service.)

**Rural Electrification and Telephone Revolving Fund** A U.S. Treasury fund, created in 1973 that lent money to rural electric and telephone systems. It was called a revolving fund because the money that borrowers paid back on their loans was used to make new loans. Revolving Fund was eliminated as part of the federal government's credit reform measures implemented in 1991. Government now appropriates just the true costs of new RUS loans.

## Letter R (cont.)

**rural electric cooperative (REC)** One of the individual, consumer-owned businesses organized to bring central-station electric service to rural people after Congress passed the Rural Electrification Act in 1936. As with other cooperative businesses, any margin is returned to the consumers according to the amount of business conducted with the cooperative. Spell out on first reference. (*See* cooperative, electric membership corporations, electric power associations, rural electric membership corporations.)

**rural electric membership corporation (REMC)** Cooperatives formed to provide electric service to rural people in Indiana. Spell out on first reference. (*See* electric membership corporations, electric power associations, rural electric cooperative.)

**Rural Electric EXPO** Annual trade show for manufacturers, suppliers and others with products to sell to rural electric cooperatives. Held in conjunction with the annual meeting of the National Rural Electric Cooperative Association.

***Rural Electric Nebraskan*** Official publication of the Nebraska Rural Electric Association.

**Rural Electric Statewide Managers Association (RESMA)** An organization of the managers of statewide rural electric associations around the country.

**Rural Electric Youth Tour** An annual educational trip to Washington, D.C., organized by the National Rural Electric Cooperative Association and statewide associations for high school students selected by local rural electric systems. Short form is Youth Tour, acceptable on all references.

**rural electrification** A term used to describe the introduction of electricity into rural areas previously unserved by power companies

**Rural Electrification Act** Legislation that established the Rural Electrification Administration in 1936 as a lending agency for electric cooperatives. Telephone cooperatives were included in an amendment to the act in 1949.

**Rural Electrification Administration (REA)** A Department of Agriculture agency established by Executive Order May 11, 1935, to lend money and provide engineering services to electric and telephone cooperatives. On October 20, 1994, as part of an Agriculture Department reorganization, REA became the Rural Utilities Service. (*See* Rural Utilities Service and Rural Electric Community Development.)

***Rural Electrification Magazine*** Official publication of the National Rural Electric Cooperative Association.

***Ruralite*** Official publication of Ruralite Services, Inc.

**Ruralite Services, Inc.** The Forest Grove, Ore.-based organization providing publications and training to electric cooperatives in Oregon, Washington, Alaska, Idaho, California, Colorado, Wyoming, Utah and Nevada. Official publication is *Ruralite*.

***Rural Missouri*** Official publication of the Association of Missouri Electric Cooperatives.

***Rural Montana*** Official publication of the Montana Electric Cooperatives' Association.

***Rural Telecommunications*** Official publication of the National Telephone Cooperative Association.

**rural telephone cooperative (RTC)** One of the individual, consumer-owned businesses first organized in the 1890s to bring telephone service to rural farms and homes. As with other cooperative businesses, any profit, or margin, is returned to the consumers according to the amount of business conducted with the cooperative.

## Letter R (cont.)

**Rural Telephone Finance Cooperative (RTFC)**  
Lends money to rural telephone and telecommunications systems.

**Rural TV** Package of C-band satellite television programming offered to rural residents through the National Rural Telecommunications Cooperative.

**Rural Utilities Service (RUS)** The U.S. Department of Agriculture agency that lends money to the nation's consumer-owned electric and telephone cooperatives and offers engineering and accounting assistance. (See Rural Electrification Act.)

**RUS** Rural Utilities Service

**R-value** A number showing the ability of insulation to resist the transfer of heat. Higher R-values indicate more efficient insulation.

## Letter S

**sag** The distance between the actual location of a conductor (at its lowest point in a given span) and an imaginary line drawn between the conductor's two adjacent supports.

**satellite dish** A bowl-shaped antenna used to receive broadcasts transmitted from orbiting satellites. Dishes come in large C-band and 18-inch DBS systems.

**SCADA** Substation Control and Data Acquisition.

**scrubbers** Devices to reduce sulfur dioxide emissions from fossil fuel-fired boiler flue gas emissions.

**SEA** Statewide Editors Association.

**seasonal consumer** An electric customer who uses electricity for only part of a year.

**seasonal energy efficiency rating (SEER)** A measure of the efficiency of air-conditioning systems. The higher the SEER, the more energy efficient the cooling system. (See energy efficiency rating.)

**SEER** Seasonal energy efficiency rating.

**self-generation** Generating power for use by a particular dedicated retail customer.

**SEPA** Southeastern Power Administration.

**SWPA** Southwestern Power Administration.

**service area** The geographic region that a utility is required to serve, or has the exclusive right to serve, in supplying electricity to the ultimate consumer.

**service charge** An amount on a consumer's electric bill designed to recover some of the fixed costs of providing electric service; generally a flat rate charged whether or not any electricity is consumed.

**short, short circuit** Establishment of an accidental or unintended electrical conducting path that bypasses the planned route from the electrical power source to the intended load or end user.

**single-phase power** An electric circuit that consists of one alternating current.

**slag** A residue produced by the combustion of coal. This heat-fused material accumulates on the sides and bottom of a boiler and is removed periodically and disposed of according to environmental regulations.

## Letter S (cont.)

**small power producer** Generates electricity from facilities much smaller than those of base-load power plants; uses biomass, solid waste, geothermal energy, diesel or renewable resources as its primary energy source.

**Smart House** A research project for developing computer controls to make highly efficient energy-use decisions in a new generation of homes.

**solar power** Energy from the sun's radiation converted into heat or electricity. (See active solar energy, passive solar energy.)

**South Dakota High Liner** Official publication of the South Dakota Rural Electric Association.

**South Dakota Rural Electric Association** (SDREA) The Pierre-based statewide service organization for South Dakota's electric cooperatives. Official publication is the *South Dakota High Liner*.

**Southeastern Electric Reliability Council (SERC)** One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**Southeastern Power Administration (SEPA)** One of four regional federal agencies marketing electricity primarily generated from federal dams; based in Elberton, Ga., it sells power in 10 southeastern states. (See power marketing administrations.)

**Southwest Power Pool (SPP)** One of 10 regional electric power planning and pooling organizations that are members of the North American Electric Reliability Council.

**Southwestern Power Administration (SWPA)** One of four regional federal agencies marketing electricity primarily generated from federal dams; based in Tulsa, Okla., it sells power in six south-central states. (See power marketing administrations.)

**spike** An increase in voltage lasting less than 1/60th of a second. Usually caused by switching of heavy loads.

**spike suppressor** (See surge suppressor.)

**spinning reserve** Extra electric-generating capacity in operating power plants, available in case another power plant suddenly stops generating. (See reserves.)

**spot purchases** A single shipment of fuel or volumes of fuel, purchased for delivery within one year. Spot purchases are often made by a user to fulfill a certain portion of energy requirement, to meet unanticipated energy needs, or to take advantage of low fuel prices.

**statewide** A service organization for electric cooperatives in one or more states. Acceptable on second reference.

**Statewide Editors Association (SEA)** A communications organization representing rural electric cooperative statewide communicators.

**step rate** A charge for electricity that depends on the total amount of kilowatt-hours used; the more a consumer uses, the cheaper the cost of each kilowatt-hour.

**stranded benefit(s)** Positive things many regulators and environmental groups argue will be lost with the move to competition in the electric industry. These might include environmental protection, energy efficiency, low-income rate payer assistance and community service programs.

**stranded cost(s)** Assets owned by utilities that become uneconomical in a competitive marketplace. Examples of stranded costs include power plants or line extensions.

**strategic marketing** Process of gathering information to meet consumer needs.

**stray voltage** Neutral to earth voltage, which is voltage that exists between the system neutral (grounded conductor) and the earth.

## Letter S (cont.)

**strip mining** Producing coal from underground by digging pits with giant shovels called draglines.

**sub-bituminous coal** Coal with medium capability of producing heat. (See anthracite, bituminous coal, lignite.)

**subsidiary** A business controlled by another company, called the parent company, but with its own identity, including charter, officers and board of directors.

**Subsidy Costs** What Federal Rural Electric Utilities Service insured loan programs actually cost taxpayers after the loans are repaid with interest. Calculated as the difference needed to cover the gap between the interest the government charges on subsidy costs are appropriated annually by Congress. The subsidy amount is key because it determines just how much co-op lending can be made.

**Substation Control and Data Acquisition (SCADA)** A system that monitors activity at an electric system's substation and transmits the information to a central computer. Often used in connection with a load management program.

**substation** An electrical facility containing equipment for controlling the flow of electricity from supplier to user.

**sulfates** Chemical compounds of sulfur that are part of many fossil fuels.

**sulfur dioxide** A poisonous gas created during combustion of fossil fuels when the sulfates they contain combine with oxygen. Don't use the abbreviation SO<sub>2</sub>.

**superconductors** Materials that offer only slight resistance to the flow of electricity.

**supplemental heating** A heating system used during extremely cold weather when additional heat is needed to moderate indoor temperatures. May be in the form of fossil fuel or electric resistance.

**supply-side management** Activities conducted on the utility's side of the electric meter.

**surge** Overvoltages lasting longer than 1/60th of a second. Can be caused by automatic switching on or off of motor driven devices, or a lightning strike on or near a power line.

**surge suppressor** An electronic device that protects electric equipment from short-term, high-voltage flows of electricity such as lightning strikes; also called spike suppressor.

**sustainable energy** Energy that comes from renewable energy sources such as solar, wind, hydro, bio, geothermal or tidal.

**synthetic fuel** A source of energy created by changing the molecular structure of a hard-to-use fuel to a more usable state.

**system demand** The total amount of energy required to supply all consumers.

## Letter T

**take-and-pay contract** An agreement that says payment shall be made only for power actually delivered.

**take-or-pay contract** An agreement that stipulates payment must be made whether or not the power contracted for is used.

**takeover** The acquisition of a cooperative or company, accomplished by buying the owners' equity.

**tap** An electric circuit with limited capacity extending from a distribution line; usually supplies a small number of customers.

**tariff** An explanation of a utility's rates as filed with a state utility regulatory body.

**Tennessee Electric Cooperative Association (TECA)** The Nashville-based statewide service organization for Tennessee's electric cooperatives and electric membership corporations. Official publication is *The Tennessee Magazine*.

**Tennessee Magazine, The** Official publication of the Tennessee Electric Cooperative Association.

**Tennessee Valley Authority (TVA)** A unique corporate agency within the federal government created by Congress to develop hydroelectric resources of the Tennessee River Valley.

**territorial dispute** A disagreement between two utilities about which one has the right to deliver electricity to a particular service area or consumer.

**territorial integrity** Legally supported right of an electric power supplier not to have its territory or consumers taken over by another power supplier.

**Texas Co-op Power** Official publication of the Texas Electric Cooperatives, Inc.

**Texas Electric Cooperatives, Inc.** The Austin-based statewide service organization for Texas' electric cooperatives. Official publication is *Texas Co-op Power*.

**therm** A measure of heat equal to 100,000 British thermal units (Btu).

**thermal storage system** (*See* electric thermal storage.)

**three-phase power** An electric circuit that consists of three separate currents delivered at one-third cycle intervals by means of a three-wire circuit; typically used to power large industrial motors that operate at 230 volts or higher.

**TIER** Times interest earned ratio. Acceptable on all references.

**time-of-day rates** Rates that vary as electricity is used during more expensive peak (usually daytime) periods and less expensive off-peak (usually nighttime) periods. (*See* off-peak rates, interruptible rate, time-of-use rates.)

**time-of-use metering** Measures both electric use and time of use.

**time-of-use rates** Different charges for electricity used at different times. (*See* off-peak rates, interruptible rate, time-of-day rates.)

**times interest earned ratio (TIER)** A ratio of margins to long-term interest expense, indicating the ability of a cooperative to meet financial obligations. TIER equals long-term interest plus margins divided by long-term interest. A cooperative with interest costs of \$100,000 and margins of \$150,000 has a TIER of 2.5. TIER is acceptable on all references.

**tipple** A facility that loads coal onto trucks or rail cars.

**TODAY in Mississippi** Official publication of the Electric Power Associations of Mississippi.

**Touchstone Energy** A national brand of the nation's rural electric cooperatives launched in April 1998. Do not abbreviate. Do not use Touchstone without Energy and the service mark. Refer to the Touchstone Energy graphic standards manual for proper use of the name and logos.

## Letter T (cont.)

**TRANSCO** Transmission company.

**transformer** A device used to raise or lower voltage in electric distribution or transmission lines.

**transmission grid** An interconnected system of wires and other equipment used to move large amounts of electricity from the generation source to a distribution system. (*See* grid.)

**transmission line** The poles, lines and conductors used to move bulk electricity from a generating plant to a substation.

**transmission system** All the lines, poles and other equipment used to move bulk electricity from a generating plant to a distribution system.

**transmission** The process of moving bulk electricity from where it is generated to where it is used.

**transmission company** A utility that provides bulk power transmission services.

**turbine** Converts the energy of moving water, steam or air to rotation, which can then be used to power a generator.

**TENNESSEE'S** Tennessee Valley Authority.

## Letter U

**UL** Registered trademark of the Underwriters Laboratories, Inc.

**unbundling** Splitting the operations of an electric utility into separate generation, transmission and distribution companies. An unbundled electric bill may itemize the charges associated with providing electricity to the customer.

**Underwriters Laboratories, Inc. (UL)** A Chicago-based not-for-profit company that tests and sets minimum standards for electrical items. The UL seal on a product means the item was tested and found safe to use under the conditions for which it was designed. Consumers are urged to look for the UL seal on all electrical appliances and equipment.

**universal service** Electric service sufficient to meet basic needs available to virtually all members of the population regardless of income.

**universal service charge** A charge levied on retail electric providers by regulators and used to assist utilities in providing service to poorer, high-cost consumers.

**uranium** A soft, radioactive metal and the heaviest of natural elements, it is a fuel of nuclear energy. A pound of enriched uranium contains nearly 3 million times the energy contained in a pound of coal.

**U.S. Army Corps of Engineers** A federal agency responsible for large-scale dam construction and operation; works with the Bureau of Reclamation in western states. Hydropower generated at this agency's facilities helps pay for its other projects, which include flood control, irrigation and navigation dam projects. This electricity is marketed by the power marketing administrations. Short form is the Corps of Engineers, acceptable on all references, or the Corps, acceptable on second reference.

**usage, use** Usage refers to the way language is practiced. Use is correct in other contexts, such as when referring to a member's use of electricity.

**used and useful** Requirement that before the fixed assets of a plant may be included in a utility's rate base the plant in question must be in operation (used) and be needed to provide service to the public (useful).

## Letter U (cont.)

**Utah Rural Electric Association** (UREA) The Sandy-based statewide service organization for Utah's electric cooperatives.

**Utility Data Institute** A Washington, D.C.-based research firm that tracks trends in the electric utility industry.

**utility** A cooperative or company that provides electricity, water or gas for residential and commercial use.

**utility plant** The fixed assets of a utility.

## Letter V

**v** Volt

**vertically integrated utility** An electric utility owning generation, transmission and distribution facilities.

**viewshed** The landscape or topography visible from a geographic point, especially that having aesthetic value.

**voltage** An electromotive force that acts like water pressure to cause electrons to flow. Voltage is a measure of the potential for current flow and may exist between objects without a flow of current.

**Virginia, Maryland and Delaware Association of Electric Cooperatives** (VMDAEC) The Glen Allen, Va.-based statewide service organization for Virginia's electric cooperatives, Maryland's electric cooperatives and Delaware's electric cooperative. Official publication is *Cooperative Living*.

**volt** (v) A unit of electric force that measures the pressure of electricity. (See kilovolt.)

**volt-ampere** The basic unit of electric power; figured as the product of a system's voltage multiplied by amperes. Abbreviation is the same for singular and plural.

## Letter W

**w** Watt.

**WAPA** Western Area Power Administration.

**Washington Rural Electric Cooperative Association** (WRECA) Based in Olympia. Official publication is *Ruralite*.

**water heater** An appliance for heating potable water. Do not use hot water heater.

**water-source heat pump** A heating and cooling system that uses electricity to move heat to and from surface or ground water. Also called a ground water heat pump. (See earth-coupled heat pump, geothermal system, ground-source heat pump, heat pump.)

**watt** (w) The standard unit of electric power, named for James Watt, a 19th-century Scottish engineer. A measure of the power that can be generated by an electric current; equal to 1/746 horsepower. (See kilowatt.)

**watt-hour** (wh) Energy converted or consumed at a rate of one watt during a period of one hour.

**weatherhead** The top of the conduit that holds the homeowner's service wires, constructed so it will resist the action of the weather on the wires. One word.

**weatherstripping** Insulation placed around doors and windows to save energy. One word.

## Letter W (cont.)

**Web**, the Short form for the World Wide Web, acceptable on all references.

**Web site** Another name for a site on the World Wide Web.

**wellness program** Organized effort to promote good health by encouraging employees to exercise, eat properly, reduce stress and practice health and safety awareness.

**Western Area Power Administration (WAPA)** One of four regional agencies marketing electricity generated primarily from federal dams. Based in Golden, Colo., WAPA serves 15 Western and Mid-western states. (See power marketing administrations.)

**wh** Watt-hour.

**wheeling** Transmitting bulk electricity from a generating plant to a distribution system across a third system's lines.

**wholesale competition** A system in which a distributor of power has the option to buy power for resale from a variety of power producers. (See retail wheeling.)

**wholesale customer** A power purchaser that buys for resale to retail customers.

**wind energy** Kinetic energy present in wind motion that can be converted to mechanical energy for driving electric power generators.

**wind farm** A large number of wind turbines built close together.

**wind turbine** A turbine that captures the wind's energy with two or three propeller-like blades, which are mounted on a rotor, to generate electricity.

**Willie Wirehand** A cartoon figure created in 1950 by free-lance artist Drew McLay and adopted as NRECA's mascot in 1951.

**wires charge** Fee imposed on retail accounts for wheeling power through a local distribution system. This charge would cover the cost of providing distribution service and may also include additional charges levied by regulators, such as supporting energy-efficiency programs, renewable energy sources and possibly stranded costs.

**Wisconsin Electric Cooperative Association (WECA)** The Madison-based statewide service organization for Wisconsin's electric cooperatives. Official publication is *Wisconsin REC News*.

**Wisconsin REC News** Official publication of the Wisconsin Electric Cooperative Association.

**World Wide Web** A part of the Internet that makes possible almost instantaneous exchange of information by linking documents and graphics into electronic pages. Short form is the Web, acceptable on all references.

**Wyoming Rural Electric Association (WREA)** The Casper-based statewide service organization for Wyoming's electric cooperatives. Official publication is *Wyoming Rural Electric News*.

**Wyoming Rural Electric News (WREN)** Official publication of the Wyoming Rural Electric Association.

## Letter Y-Z

**yaw drive** Upwind wind turbines face into the wind; the yaw drive is used to keep the rotor facing into the wind as the wind direction changes. Downwind turbines don't require a yaw drive; the wind blows the rotor downwind.

**yaw motor** This motor powers the yaw drive.

**Youth Consulting Board** Composed of one member from each state that participates in the annual Rural Electric Youth Tour.

**Youth Tour** Acceptable on all references for Rural Electric Youth Tour.

**Yucca Mountain** A ridge line in Nevada proposed as the site of the Yucca Mountain Repository, a storage facility for spent nuclear fuel and other radioactive waste.

**zero-interest loans** A federal Rural Business-Cooperative Service loan program designed to assist rural economic development.



