Central Alabama Electric Cooperative
A Touchstone Energy® Cooperative

Contact Us

Toll Free: 1-800-545-5735
Outage Hotline: 1-800-619-5460
www.caec.coop

Prattville Office:
1802 U.S. Hwy. 31 North
Mailing: P.O. Box 681570
Prattville, AL 36068

Clanton Office:
1601 7th St. North

Rockford Office:
9191 U.S. Hwy. 231

Wetumpka Office:
637 Coosa River Pkwy.

The Right Tools for the Job

Darren Maddox
Manager of Training & Safety

Automobiles are a part of our daily lives, and the first thing the vast majority of us does when we get into a vehicle is fasten our seatbelt—to help keep us safe in case of an accident. We use seatbelts along with airbags, back-up cameras and traction control systems to keep us safe with something that we use every day and rarely give it a second thought. The same is true for another integral part of our lives—electricity.

From substations, poles, wires and other equipment to the outlets and appliances in your home, the power that makes so many of our daily activities possible and adds convenience to our lives, surrounds us. And just like with automobiles, the potential consequences it holds must be respected and requires the right tools and equipment to keep us safe when working around it.

Our employees at CAEC, such as linemen, utilize particular protective gear including belts, gloves, eyewear, harnesses and a large variety of other personal protection equipment (PPE) to perform their jobs safely each day. In your home or at work, you can utilize safety equipment such as ground fault circuit interrupters (GFCIs), outlet covers and more to aid in keeping you and your family protected around electricity. But even with all of the protective gear available, the best tools for the job when it comes to safety are awareness, education and preparedness.

Awareness is having the knowledge of hazards around you. For example, if you're going to perform work on your roof requiring the use of a ladder, take the time to stop and look around for power lines and the service drop (the wire connecting CAEC's electrical system to your home), noting where these items are located in regard to your work area. This simple step takes only a fraction of time and helps you be aware of potential dangers while you work.

Education is a key part of safety. For this reason, employees at CAEC attend numerous safety training classes and seminars throughout the year. They also participate in online training to keep reinforcing a culture of safety at the workplace. Educational opportunities with safety demonstrations for all ages—from grade-schoolers to adults—are offered to our communities. We stress the importance of electrical safety through these programs as well as numerous safety articles in publications such as this magazine.

But at times, accidents can still happen and being prepared can offer the difference as it pertains to life, death or injury. Our employees work on preparedness by participating in exercises depicting different scenarios—such as pole top rescue and CPR. You can also be prepared, by knowing what to do if you come in contact with a downed power line, see someone receiving an electric shock or see an electrical fire (all of which are covered on our website at caec.coop). While we hope none of us ever has to experience any of these circumstances, preparedness is an essential tool when it comes to electrical safety.

Awareness, education and preparedness go hand in hand in regard to electrical safety—and when you have all three working together in your toolbox, you can help eliminate electrical hazards in your home.

Youth Tour 2015 – Leadership Up Close and Personal

Learning how historic places and people have shaped our world, gaining valuable leadership skills and establishing personal relationships with leaders are just some of the beneficial aspects of Alabama Rural Electric Association's (AREA) Youth Tour. The 2015 delegates gained a new awareness of the world around them and were able to meet and discuss issues with various state representatives and elected officials during the Montgomery Youth Tour, held March 10-12.

Eight extraordinary high school juniors, sponsored by CAEC, participated in this year's Montgomery Youth Tour. Participants were Tatum Connell, Prattville High School; Emma Gunter, Wetumpka High School; Blake Johnson, Prattville Christian Academy; Macie Lee, Autauga Academy; Brandon Perdue, Perdue Preparatory School of Business and Law; Jaila Rhodes, Autaugaville High School; Dan Wendland, Autauga Academy and Caroline Williams of Autauga Academy.

The students were in agreement that this program gave them the opportunity to develop team building, social and leadership skills while interacting with area students sharing similar goals.

"The Youth Tour program is such a life-changing and informative experience," said Perdue. "I left it a changed person, wanting to work harder to make a difference and be a positive change in the lives of those around me."

Montgomery Youth Tour

Joined by more than 140 other students from across the state, the participants toured the Civil Rights Memorial, the First White House of the Confederacy, the Dexter Avenue Church, the state capitol and the newly remodeled State Archives.

Another highlight was spending several hours at the State House observing the Senate and House while in session. Several house and senate members took time to speak on topics ranging from the role of the Rules Committee to viewpoints on many issues being discussed in the 2015 Legislative Session such as the General Fund Budget. The students were also able to meet CAEC service territory representatives Senators Cam Ward and Clyde Chambliss.

Delegates speaking with Senator Clyde Chambliss at the State House

Washington D.C. Youth Tour

Another part of the Youth Tour Program is the Washington D.C. Youth Tour, scheduled for June 12-18. After going through a rigorous judging process, Gunter, Perdue, Wendland and Williams were selected to attend this upcoming conference and Johnson was named as first alternate. These representatives will join approximately 1,500 high-school juniors from other electric co-ops across the country.

This tour provides young leaders a life-impacting opportunity to increase their understanding of the value of rural electrification and become more familiar with the historical and political environment of the nation's capital with visits to monuments, government buildings and cooperative organizations. They will also be able to meet with elected officials and increase their knowledge of how the federal government works.

Congratulations to all of our students who participated in this valuable and unique process.

Application information for the 2016 Youth Tour will be available in the September 2015 issue of *Alabama Living* and on our website, caec.coop. For more information, call 1-800-545-5735 ext. 2125.

Members' Economic Participation

Official Founding Principle #3:

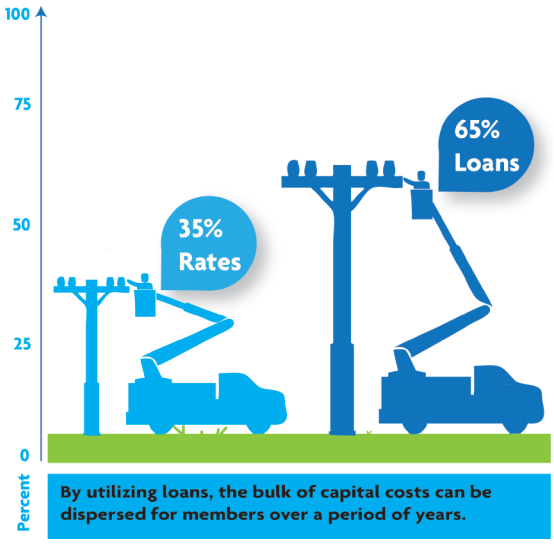
Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital is usually the common property of the cooperative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing the cooperative, possibly by setting up reserves, part of which at least would be indivisible; benefitting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

Principle number three is another way that sets cooperatives apart from other business models, by laying out the responsibilities of members and the cooperative in regard to how funds should be handled. Central Alabama Electric Cooperative receives money to operate through two main channels: rates, or the funds supplied from your bill payments, and through loans from the National Rural Utilities Cooperative Finance Corporation (NRUCFC) or federal agencies such as the Rural Utilities Service (RUS).

As a member, you have a say (principle number two, democratic member control) through your elected board of trustees. The board sets the strategic direction of the cooperative with management and staff, putting that into action by developing equity and operational plans that determine the balance between how much of our obligation is paid from rates and how much is paid with loans. Our current plan calls for 35 percent of these costs to be covered by member rates, and 65 percent is borrowed. Because the electric utility industry is an extremely capital-intensive business, loans are the principal avenue utilized for building infrastructure (substations, poles, wire, transformers, meters, etc.), spreading the costs of these required materials over a period of years and reducing the need for our current membership to pay the brunt of these costs on their monthly power bill. So, when you pay your bill, where does that money go?

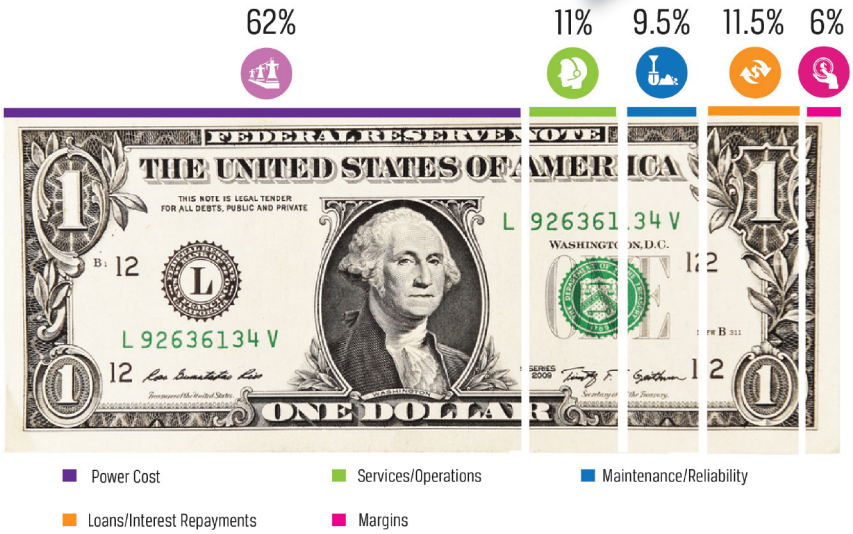
Of each dollar you pay, approximately 62 percent is used to purchase power from our generation and transmission cooperative, PowerSouth Energy Cooperative. In addition to this power cost, 9.5 percent of each dollar goes to the maintenance of the lines and equipment required to deliver reliable power to your home, through programs such as vegetation management, line and pole inspections and equipment repair. For the loans we utilize to pay for the bulk of our capital needs, 6 percent goes to pay for the long-term debt and 5.5 percent pays for the interest on the loans. All of the other services that allow your co-op to serve you—billing and customer service, community programs, efficiency programs and this very magazine—comprise approximately 11 percent. After all expenses are paid, approximately 6 percent is used as the members' contribution for infrastructure improvements. Not only is this required by our lenders and state laws, under our bylaws, this is the members' participation in the cooperative. The record of this con-

WHERE DOES THE MONEY COME FROM FOR CAEC TO OPERATE?



By utilizing loans, the bulk of capital costs can be dispersed for members over a period of years.

Where Does Your Member Dollar Go?



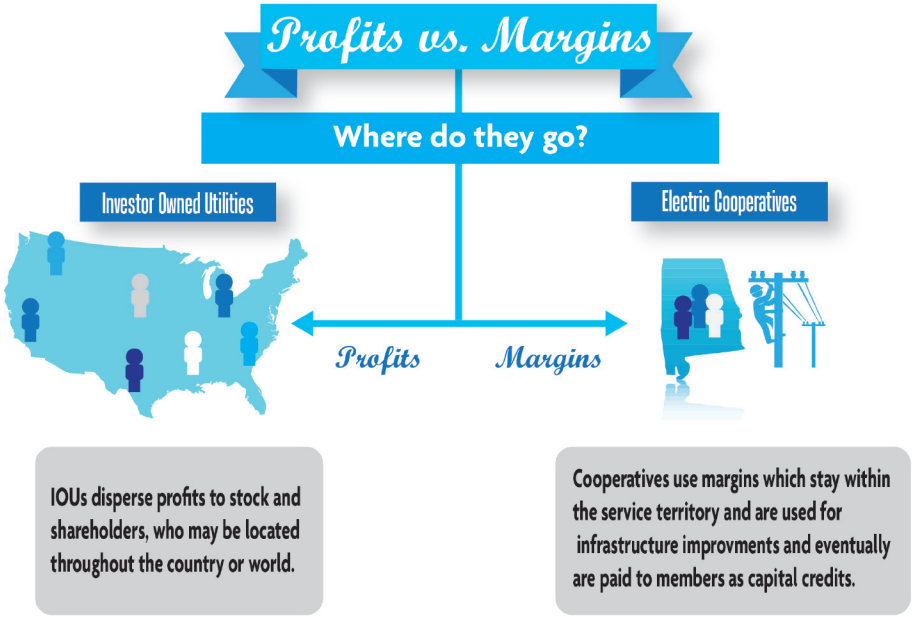
tribution is kept in the form of capital credits.

As a not-for-profit organization, unlike investor-owned utilities (IOUs), your cooperative operates at cost, receiving only enough revenue to run and ensure the future viability of the business. There is, however, a certain level of margins required by our lenders, like RUS, as part of our loan agreements. Additionally, those margins are a portion of the overall equity, which is the members' ownership level in the cooperative.

Cooperatives are unique in returning margins through capital credits to local members who used the service, contrasting to IOUs who take profits and disperse it, in the form of dividends, to shareholders who may be located throughout the country (or world) and who may never do business with the company. The return of capital credits is intended to approximately match the average life of the utility plant and is in proportion to the amount of business done by each member. In essence, upon the retirement of the capital investment, each member gets back the portion of margins their own purchases generated for the co-op.

It is important to remember cooperatives are businesses that exist to provide goods and/or services to those who participate, the members. The third principle makes it clear that members have a responsibility to capitalize their cooperative, and that by pooling funds, they agree to participate in an association that exists for the good of the whole group, not just a few individuals. In fact, principle three lays this out so well, that the state of Alabama used it for the basis of its law regarding the financial operations of cooperatives.

According to this principle, cooperatives are not-for-profit organizations, not non-profit ones, which means they do pay taxes. However, the margins generated by a cooperative do not benefit a small group of owners or investors, but the entire cooperative membership. It is this use to which revenue is put that differentiates the cooperative model from private businesses.



CAEC offices will be closed May 25 for Memorial Day

Knowledge & Power

There are some great combinations in this world—peanut butter and jelly, the sand and surf and the moon and stars just to name a few, but there's one pairing that could help keep you and your family out of harm's way—safety and electricity. With May being Electrical Safety Month, take the time to see how you score on our Electrical Safety Quiz and see if you have the combination of knowledge and power.

1. True or False: When using extension cords, it's best practice to place them under a rug so they don't become a tripping hazard.

2. The best way to extinguish an electrical fire is:

a. With a Class A rated fire extinguisher

b. Douse it with water

c. With a Class C or ABC rated fire extinguisher

d. Flour

3. Which of the following is NOT a nationally recognized testing laboratory used to certify products for product safety standards?

a. Underwriters Laboratory (UL)

b. Intertek

c. Canadian Standards Association (CSA)

d. Electrical Safety Foundation International (ESFI)

4. True or False: Using a light bulb with wattage too high for the light fixture could be a fire hazard.

5. How often should you replace your home's smoke alarms?

a. Every 10 years

b. Every 8 years

c. Every 5 years

d. Never, only replace the batteries once a year

6. If you see someone who is receiving an electrical shock or is being electrocuted from an appliance, you should:

a. Turn off the home's main switch at the circuit breaker

b. Use a piece of wood to push the appliance away

c. Grab them and pull them away from the appliance

7. What is the function of the third prong on a 3-prong plug?

a. Provides extra power for equipment requiring higher wattage

b. Provides a path to ground any electricity that may stray from an appliance or product

c. Helps to hold the plug firmly in the outlet

d. Reduces the chance of electric shock when around water

See page 42 to see the answers and how you scored.

Knowledge & Power: Safety Quiz Answers (Quiz on page 8)

Question: True or False: When using extension cords, it's best practice to place them under a rug so they don't become a tripping hazard.

Answer: **False.** Placing cords under rugs could cause them to overheat and become a fire hazard.

Question: **The best way to extinguish an electrical fire is:**

Answer: **C.** A class C or ABC rated fire extinguisher. Never use water or a Class A rated fire extinguisher on an electrical fire. If you do not have a C or ABC rated extinguisher or the fire is not quickly extinguished, exit the building.

Question: **Which of the following is NOT a nationally recognized testing laboratory used to certify products for product safety standards?**

Answer: **D.** Electrical Safety Foundation International (ESFI). While a wonderful organization that promotes electrical safety, ESFI is not one of the OSHA-recognized testing laboratories. For a full, current list, visit osha.gov/dts/otpca/nrtl

Question: **True or False:** Using a light bulb with wattage too high for the light fixture could be a fire hazard.

Answer: **True.** Always use the appropriate wattage for each light fixture. If converting from an incandescent bulb to a CFL, look for the wattage conversions on the CFL package to find the appropriate bulb for your fixture.

Question: **How often should you replace your home's smoke alarms?**

Answer: **A.** At least every 10 years. While changing your smoke detector batteries at least once a year is vital, it's just as important to replace the unit itself at least every decade since the electrical components within the detector can age, making them susceptible to false alarms or failure, and when any component of a smoke detector fails, the unit fails completely.

Question: **If you see someone who is receiving an electrical shock or is being electrocuted from an appliance, you should:**

Answer: **A.** Turn off the home's main switch at the circuit breaker. By turning off the appliance's source of electricity, you can safely evaluate the person. Touching someone while the item still has power could conduct electricity into your body as well, and while wood may not be a conductor, if it's wet or dirty, it could still cause you electrical harm.

Question: **What is the function of the third prong on a 3-prong plug?**

Answer: **B.** The third prong on a 3-prong plug provides a path to ground as a means to protect the equipment and user from electric shock. You should never remove the third prong in an attempt to use a 2-prong outlet. Use an adapter or replace the outlet.

Energy Efficiency: Radiant Barriers

Derek Blankenship
CAEC Energy Services Representative

As we enter the hot months of summer, many of us may see our energy bills increase with the rising temperatures. While we try to stay cool, we also look for ways to lower our energy costs. One product that can help is a radiant barrier.

These barriers reduce the effect of thermal radiant heat, or heat that comes from visible and infrared light such as sunlight, from entering your home through the roof. Radiant heat travels from one object directly to any solid object, so when heat from the sun flows down, it absorbs into the first available object it encounters, with your home's roof being such an object. The heat flow then passes through the roof and into the attic space.

This is where radiant barriers, or reflective insulation systems, can help. Just as their name implies, they reflect the radiant heat out, away from your attic space. While there are many brands and types of radiant barriers, due to how they operate, it is recommended that at least one side of the system be very reflective, typically with some type of aluminum foil. Also, there needs to be some type of insulation material attached, either foam board or bat insulation attached to the foil or between two pieces of foil.

Radiant barriers can be purchased for a do-it-yourself project or installed by a licensed, reputable company. Basically, there are two methods for installation; either attaching them under the roof joists or mounting them on the floor of the attic on top of your insulation. In the south, where radiant barriers are needed more in the summer months, the best location to install the barrier is under the roof joists, especially in the area that faces the southeast, and with the reflective side facing downward. This allows for the radiant barrier to block up to 95 percent of the heat before reaching the rest of the attic, helping to keep the area cool.

The other type of installation, which involves mounting the barriers on the floor of the attic, offers more help for homes in northern states because this method is effective in both summer and winter months. It is designed to keep the heat out of the house in the summer and inside the house during the winter. In northern states, winter is the most prevalent season and the goal is to keep heat inside the home as much as possible. In the south, however, this method can cause an issue because capturing heat between the insulation and radiant barrier in the winter can create a moisture problem in your insulation.

Radiant barriers stop thermal radiant heat, or heat from sunlight, from entering your home through the roof.

While radiant barriers are a cost effective product to install, it's always important to keep in mind safety issues as well as proper ventilation. Take safety precautions by investigating the installation location for nails or any sharp objects pointed toward you and if you have to go around electrical wiring, be sure to verify that the power is off to those wires so you can freely work. If a barrier is installed on top of the insulation, take caution so that you or anyone working in the attic can see the ceiling joists for secure footing, which can help prevent a fall through the ceiling.

Lastly, proper ventilation must be taken into account when installing radiant barriers. There needs to be at least one inch of space between the barrier and the bottom of the roof to allow for constant air flow between the soffit vents and the ridge vent or fans on your roof. If placed directly against the roof, there is no air space and the barrier becomes completely ineffective while eliminating the ability of your roof to ventilate.

If you are looking to make your attic more comfortable and help lower your energy bill this summer, having a properly installed radiant barrier is one of many options that could help you reach that goal.