

September 2019 Share Package

Utility Contacts

Pam Spettel, Blachly-Lane Electric Co-op, 541-284-2147, spettelp@blachlylane.coop

Brent ten Pas, Central Electric Co-op, 541-312-7753, btenpas@cec.coop

Shelly Yockey, Coos-Curry Electric Co-op, 541-332-6186, shelly.yockey@cooscurryelectric.com

Sabrina Owens, Escambia River Electric Co-op, 850-675-7433, sabrinaa@erec.com

Jennifer Koukos, Glades Electric Co-op, 863-531-5004, jkoukos@gladeselectric.com

Brenda Everts, Lane Electric Co-op, 541-284-0463, brenda.everts@laneelectric.com

Matt Haynie, Marlboro Electric Co-op, 843-454-2894, mhaynie@marlboro.coop

Sandra Ghormley, Oregon Trail Electric Co-op, 541-524-2822, sghormley@otecc.com

Mark Sellers, Peace River Electric Co-op, 863-767-4644, mark.sellers@preco.coop

Steve Meyers, Umatilla Electric Co-op, 541-567-6414, steve.meyers@umatillaelectric.com

Traci Brock, Wasco Electric Co-op, 541-296-2740, tracib@wascoelectric.com

Co-op month ghost message

You have a unique story to tell about yourself because you are part of an electric cooperative community. But if you're like a lot of co-op members, you might not feel you know enough to tell that story well. Here's some help.

About one in 10 Americans receives their power from an electric cooperative, which belongs to the people it serves. That is you and your neighbors.

Electric co-ops were developed in the 1930s because city utilities—owned by investors wanting to make a profit—ignored rural America. They didn't think there was enough money to be earned there. So people in rural communities met with each other and formed local electric co-ops.

October is National Co-op Month—the time of year when cooperatives across the country celebrate the many ways co-ops are unique and, more importantly, the members they serve.

This year, the focus is on our ties to the local community. Your co-op was built by the community, for the community.

What that means for you, as members of a cooperative, is:

- Your co-op is here to stay. Since it belongs to the members it serves with safe, reliable, affordable energy, your cooperative is not going to move out of the country, or even across the state. It's staying right where it is.
- Your co-op knows you. Across the country, there are more than 900 electric cooperatives. No two are alike. Because each belongs to the people who live there, the co-op listens to the community it is a part of. Whether it's working with the latest energy-efficiency technologies or keeping the electric grid safe and secure, your electric cooperative can offer solutions that make the most sense locally.
- Your co-op cares about your community. Its top priority is to power the community. It is not owned by far-away, or even nearby, investors looking only for a good return on their money. Your co-op partners with local organizations on community events, fundraisers, youth programs and more. It is run by your friends and neighbors. By investing in the community, your electric co-op supports economic development and prosperity for all, right here at home.

These are just a few ways you and your electric co-op are one of a kind.

Metal Roofing Reduces Costs, Increases Comfort



Each large metal roofing panel covers a large area of the roof for simpler installation

Photos courtesy of McElroy Metal



This simulated tile roof is made from painted steel. Many stock colors are available.



To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH, 45244, or go to www.dulley.com.

Copyright 2019, James Dulley

Q. *It is replacement time for my old dark shingle roof. What type of roof do you recommend?*

A. A dark colored roof absorbs much of the sun's heat. This heat not only makes your house hotter and drives up air-conditioning costs, but it hastens the degradation of the shingle material itself.

A dark shingle can easily reach 150 F in the hot afternoon sun. If you have ever tried to lift a square of shingles, you know how heavy they are. When this thermal mass gets hot, it stores the heat and radiates it down into your house well into the evening.

Even if you have adequate attic insulation on the attic floor, the radiant heat from the hot roof easily passes through it to the room ceilings. Standard thermal insulation, such as batts and blown-in fiberglass, rock wool and cellulose, are most effective for blocking conductive heat transfer, but less so for radiant heat from a hot roof.

The two most common roofing materials for houses are asphalt/fiberglass shingles and metal. White shingles can be fairly energy efficient and effective for reflecting much of the sun's heat. Some white shingles even qualified for the former federal energy tax credit. It takes very little color tint, however, for shingles to get hot and absorb heat.

Metal roofing can cost as much as double that of low-end shingles, but many types have lifetime warranties. Kynar 500 or Hylar 5000 PVDF resin-based finishes are durable and reflect most of the sun's heat for savings on cooling costs.

Aluminum and steel are the two most common materials for residential use. Copper is attractive and durable, but expensive. The natural aged patina color is beautiful, but it does not reflect the sun's heat well. Be sure the roofing has passed UL580 uplift and UL2218 Class IV impact resistance tests.

I installed an aluminum roof on my house five years ago. It consists of 1-foot-by-2-foot interlocking panels with a heat-reflecting paint coating. The panels are

made of recycled aluminum from soda cans and are formed to look like individual cedar shakes.

Aluminum is a particularly efficient roofing material because the underside surface of the roofing panels are bare and never rust. Bare aluminum has a low emissivity rating. It blocks heat from the hot metal top surface from radiating downward through the roofing lumber and attic insulation to the rooms below.

When selecting an aluminum roof, choose one with a contour that provides at least a 1-inch air gap over the sheathing or old roofing for its low-emissivity properties to be effective. After my simulated shake roof was installed, the second-floor bedrooms stayed much cooler on summer afternoons. A simulated clay tile aluminum roof is also effective with the many deep air gaps under it.

The only drawback to an aluminum roof is you must be careful not to step on the high shakes edges because you may dent it. In areas where you walk often, such as to clean a skylight, have molded foam inserts installed under those panels.

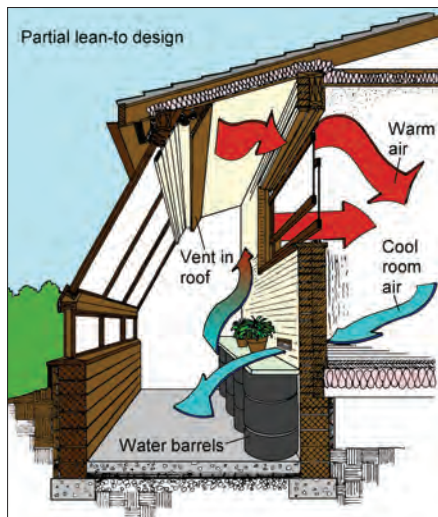
During winter, snow sometimes slides off in big sheets. In snowy climates, have small snow stops glued to the roof to hold the snow in place as it melts.

Painted steel roofs are available in many colors and simulated contours. The steel is treated with many layers of corrosion-resistant coatings, so rust is not a problem. Shingles with aluminum-alloy coating are particularly durable. Steel is very strong, so there are fewer issues when walking on it.

Most metal roofs can be installed over existing shingles, no matter what their condition. This saves the cost—often about \$1,000—for removing old shingles.

Whether you choose white shingles or a metal roof with heat-reflecting paint, install an attic ridge vent. While doing a reroof job, adding a ridge vent is a minor additional expense. Also make sure the soffit vents are not blocked with attic insulation. Even with the metal roof, adequate attic ventilation is needed for both summer and winter energy efficiency. ■

Sunrooms Provide Energy-Producing Living Space



This schematic shows how to use thermal mass—water barrels and concrete floor—and vents to circulate hot air into a house.



This do-it-yourself sunroom is built around an efficient windows removed from a older house. An airtight fireplace provides supplemental heat during winter.

Photo by John Robbins



To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, OH, 45244, or go to www.dulley.com.

Copyright 2019, James Dulley

Q. What design factors should we consider when building a sunroom on our house?

A. Adding a sunroom can be a good investment by providing more living space at a reasonable price. This is particularly true if you build one yourself from scratch or a kit. It will still be a substantial investment, so plan properly. Realistically, for a sunroom also used for living space, a savings of 5% on winter heating bills is reasonable.

For the average do-it-yourselfer, it is wise to buy a sunroom kit and follow the construction instructions precisely. Before selecting a kit, ensure it is designed for DIY construction. Get a list of recommended power tools. Building a sunroom can be more difficult than it first appears.

When comparing sunroom kits, determine how much comes preassembled—particularly the windows, roof panels, skylights and doors. I built a kit at my home, and many of the structural aluminum pieces were delivered in long lengths. They had to be carefully measured, mitered and cut to length. It was not a simple DIY weekend project.

Determine your priority of extra living space versus capturing heat for your house. A sunroom can do both to some extent, but if you primarily desire one or the other, it must be designed with that purpose in mind. Sunrooms designed primarily for winter heating often become uncomfortable during summer.

The sunroom's location and its orientation to the sun are primary factors. To capture meaningful solar heat for your house, the sunroom should be oriented with 20 degrees of true solar south. This can be different than compass south. If your only location is to the north, forget about overall heat gain. It likely will require supplemental heat to be used in winter.

Other factors to consider for sunrooms used for heating are adequate solar thermal mass and a way to transfer the extra heat into your house. Thermal mass can come from stone or brick sides, flooring and barrels filled with water. Without adequate thermal mass, the sunroom will quickly overheat in the afternoon and quickly cool

in the evening.

A concrete floor can be effective thermal storage. Pour it twice as thick as local building codes and insulate the perimeter with rigid foam insulation. The ground itself provides thermal mass, so extend the foam insulation down an additional 24 inches below the ground surface.

Add two groups of thermostatically controlled fans. One group is used to force solar-heated air into the house during winter. The other group, spaced near the roof, is used to ventilate the excess heat during summer. If the entire side of the sunroom opens to inside the house, heated air will circulate in naturally. Install sliding glass doors between the house and sunroom for more heat control.

Building a sunroom yourself using standard lumber is the most inexpensive option. It also provides more design flexibility to meet your specific needs.

Before starting the project, visit local window installers and builder suppliers. They may have large windows that someone returned available at a significant discount.

For year-round use and to gain heat from the sunroom, use double- or triple-pane windows. If, due to poor sun orientation or other factors, you cannot use the sunroom for solar heating, lower-cost single-pane windows are fine. This will create a three-season sunroom.

Another glazing option is clear double-walled polycarbonate sheets. It is designed with multiple insulating cavities between the two skins for incredible toughness and rigidity. It does not provide a clear view outdoors like glass, but you can make out objects, color and movement.

A lean-to design with a sloped front is the simplest sunroom to build and captures more solar heat than a vertical front. It uses less lumber and roofing materials, but it may overheat during summer.

Placing one-half-inch-thick foil-faced polyurethane foam insulation sheets (foil facing outward) over the slanted face during summer works well. However, usable floor space is limited because of the sloped front and reduced headroom. ■

Annual Meetings Aren't All Business

Cooperative annual meetings offer a chance to reconnect with community

It's 6:30 a.m. on a warm Saturday morning in rural South Carolina as I pull into a dirt field across the street from Marlboro Electric Cooperative's headquarters and warehouse. Eleven months out of the year, this land is home to corn or soybean crops. This morning, however, it is empty.

In about an hour, it will transform into a vast impromptu parking lot, ultimately filling with thousands of vehicles. Today is Marlboro Electric Cooperative's annual members' meeting. A crackle of excitement fills the air even before the sun begins to peek over the horizon.

While ads list the official start time as 10 a.m., eager members gather at the entrance hours before, hoping for a good seat for this year's meeting. As the crowd builds, the day begins to fill with warm hugs and excited squeals of "I haven't seen you since the last annual meeting!" and "It's so wonderful to see you again!" It's moving to see people catching up with old friends and neighbors they would not normally run into in their day-to-day lives, or families from around the county reunited in one place.

With roughly 6,000 members, MEC is by no means the largest electric cooperative in the country, but a newcomer attending one of our annual meetings might not guess that. I never cease to be amazed by the great number of people who decide to spend their Saturday with us at the annual meeting. Although only 5% of our membership is required to make quorum for an official meeting to take place, we consistently have more than 20% of our members present.

Since my department oversees the planning and execution of the annual meeting, we always seem to be talking about how to keep the turnout so strong. There are two prevailing theories

MEC's annual meeting always seems to smell more like a county fair than a business event. Held in our truck shed—basically a huge, open warehouse—there's everything from grilled hot dogs to freshly popped popcorn. Our hot dog chili features a homemade (secret) recipe, and all co-op

employees put their baking skills to the test and bring fresh sweets from home. Fair warning: Some of us are better bakers than others! However, members seem to taste the love we put into our food and appreciate the low prices. I have even heard a few say our \$1 hot dogs are the main reason they come to the annual meeting year after year.

We generally have an awesome local band that plays all sorts of hit tunes. They even have a saxophonist, which gives their performance a little something extra—a jazzy feeling. Last year, we had a nationally renowned magician. As part of his act, he brought kids on stage and did magic tricks, and pulled a rabbit out of a hat. We also had a balloon artist who was a hit with all ages. Few things bring me more joy than seeing a child's eyes light up when they witness a regular balloon transform into a giraffe or some other exciting animal.

After our business meeting, we have a raffle for everyone in attendance. I'm not trying to brag too much about the quality of the prizes, but just for context, we raffle things like small kitchen appliances and generally have around 50 prizes.

While all the food, music and fun is understandably compelling, I like to think the underlying reason so many members attend the annual meeting is because your electric co-op is just that: yours. You have a say in how it is run because membership equals ownership. Your annual meeting not only serves as an opportunity to socialize with long-lost friends and far-flung neighbors, it's your chance to meet face to face with the folks who work for you and discuss ways they might better serve you in the future.

Electric co-ops belong to the members they supply. Every member has an equal voice in how their co-op is run. When members attend the annual meeting, those individual voices can be heard. Sitting in that truck shed with a belly full of popcorn, you can feel confident any decisions being made that day are in your best interest and the best interest of your community. ■



Matt Haynie is vice president of marketing and public relations at Marlboro Electric Cooperative in Bennettsville, South Carolina.

Weather the Storm

Prepare now to better cope with hazardous conditions

By Pam Blair

Severe weather can happen any time in any part of the country, leaving behind damage and danger—including electrical safety hazards. Downed power lines are visible, but electrically charged water is not. Both carry the risk of electrocution.

September is National Preparedness Month. Understand, plan and practice for weather-related risks in your area.

Hazardous conditions include thunderstorms with damaging winds, tornadoes, hurricanes, hail, flooding and flash flooding, and winter storms with freezing rain, sleet, snow and strong winds.

The Emergency Alert System and National Oceanic and Atmospheric Administration Weather Radio provide emergency alerts. Some communities also have a warning system.

Floods

Floods are the most common natural disaster in the United States. Floods result from rain, snow, hurricanes, tornadoes, storm surges, and overflows of dams and other water systems. They can develop slowly or quickly. Flash floods can come with no warning.

Failing to evacuate flooded areas, entering floodwaters or remaining after a flood can result in injury or death.

Know the flood risk in your area. Visit FEMA's Flood Map Service Center (<https://msc.fema.gov>) for information. If flash flooding is a risk in your area, monitor potential signs, such as heavy rain.

Gather supplies in case you have to leave immediately or if services are cut off. Keep in mind each person's specific needs, including medication, and pets.

Keep important documents in a waterproof container. Create

password-protected digital copies. Move valuables to higher levels. Declutter drains and gutters. Install check valves. Consider a sump pump with a battery.

Learn and practice evacuation routes, shelter plans and flash flood response.

If you are under a flood warning, find safe shelter right away. Evacuate if told to do so. Do not walk, swim or drive through floodwaters. Never drive around barricades. Just 6 inches of moving water can knock you down, and 1 foot of moving water can sweep your vehicle away. Stay off bridges over fast-moving water. Fast-moving water can wash bridges away without warning.

Avoid driving, except in an emergency. If your vehicle is trapped in rapidly moving water, stay inside. If water is rising inside the vehicle, seek refuge on the roof.

If trapped in a building, go to its highest level. Do not climb into a closed attic. You may become trapped by rising floodwater. Go on the roof only if necessary. Once there, signal for help.

If evacuated, listen to authorities for information and instructions. Return home only when authorities say it is safe.

Avoid wading in floodwater, which can contain dangerous debris and be contaminated. Snakes and other animals may be in your house. Wear heavy gloves and boots during clean up.

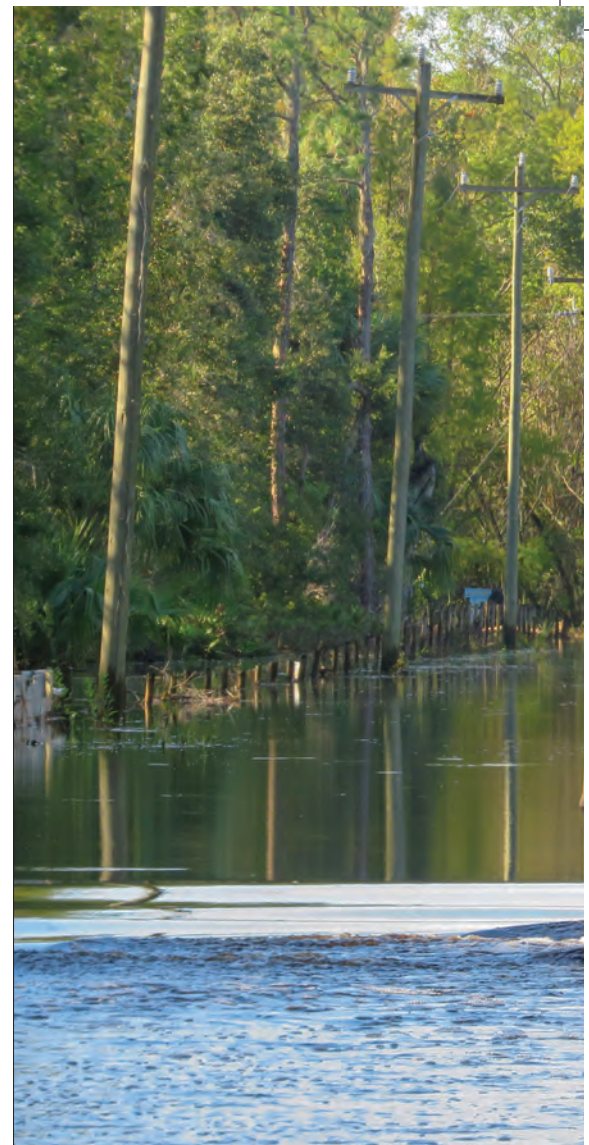
Be aware of the risk of electrocution. Underground or downed power lines can electrically charge the water. Do not touch electrical equipment if it is wet or if you are standing in water.

If it is safe to do so, turn off the electricity to prevent electric shock.

Thunderstorms and Lightning

Thunderstorms often include lightning and powerful winds, sometimes exceeding 50 mph, with the possibility of hail, flash flooding and tornadoes.

Lightning is a leading cause of injury



and death from weather-related hazards. Although most victims survive, people struck by lightning often report a variety of long-term debilitating symptoms.

Know your area's risk. In most places, thunderstorms can occur year-round.

Cut or trim trees that may be in danger of falling on your home. Consider buying surge protectors, lightning rods or a lightning protection system to protect your home, appliances and electronic devices.

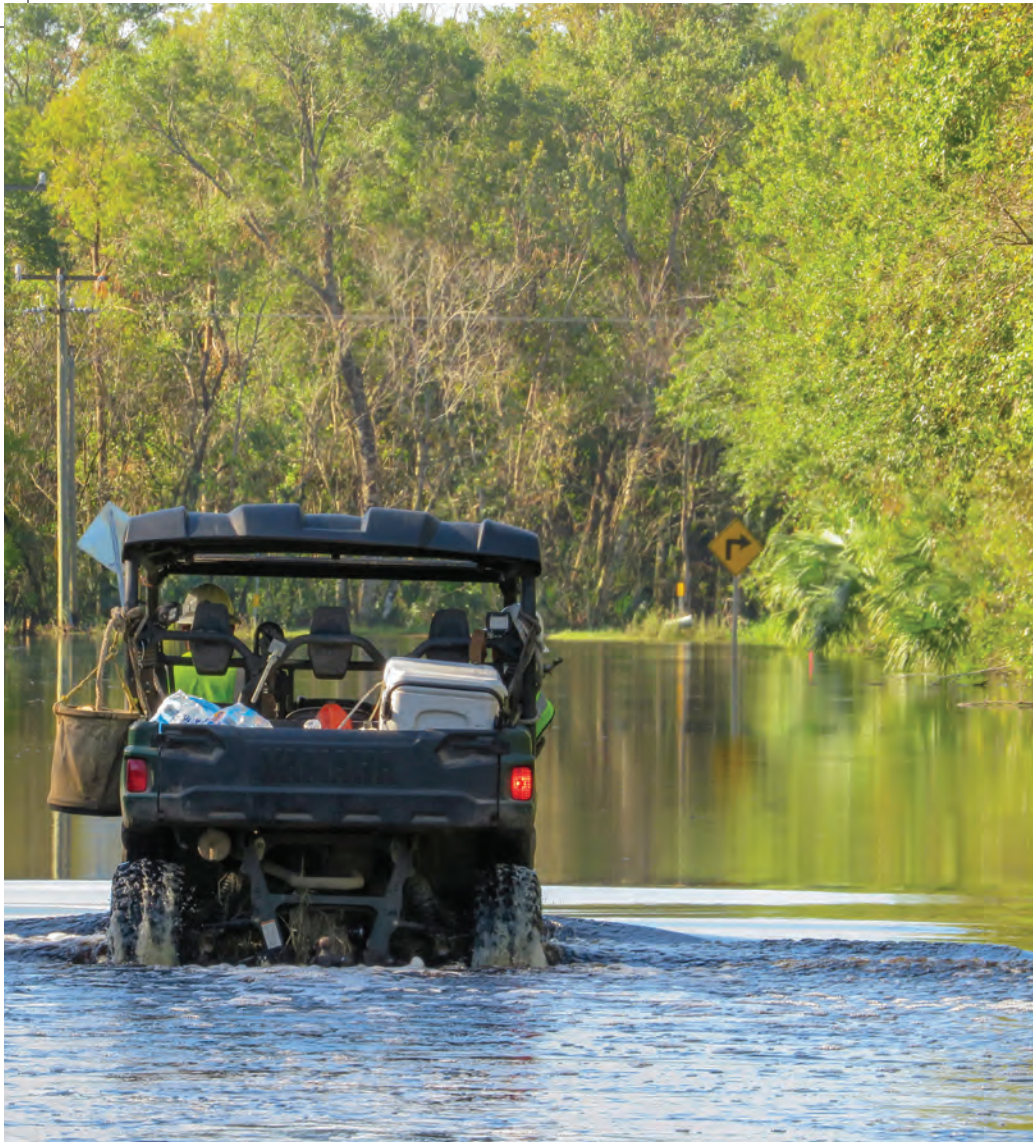
Pay attention to alerts and warnings. If under a thunderstorm warning or you hear the roar of thunder, go indoors.

A sturdy building is the safest place to be. If boating or swimming, take shelter indoors or stay in a car with a metal top and sides. Do not touch anything metal.

Once indoors, avoid running water or using landline phones. Electricity can travel through plumbing and phone lines.

Unplug appliances and other electric devices. Secure outside furniture.

Avoid flooded roadways, and watch for fallen power lines and trees.



Floods are the most common natural disaster, caused by a variety of weather conditions. In the Northwest, rising water typically is a result of heavy rainfall or melting snow. In the Southwest, flash floods are common. In the Southeast, hurricanes and tornadoes are accompanied by a rapid accumulation of rainfall.

Tornadoes and Hurricanes

Tornadoes are violently rotating columns of air that extend from a thunderstorm to the ground. They can destroy buildings, flip cars and create deadly flying debris with winds exceeding 200 mph.

The Southeast and Midwest have the greatest risk for tornadoes, although they can happen anytime and anywhere.

Know the signs of an impending tornado, including a funnel-shaped cloud, an approaching cloud of debris or a loud roar similar to a freight train.

If your community has sirens, become familiar with the warning tone. Pay attention to weather reports.

If you are under a tornado warning, take shelter right away in a sturdy building. Go to the basement or storm cellar. If in a building with no basement, get to a small interior room on the lowest level.

Stay away from windows, doors and outside walls.

If outside, avoid overpasses or bridges. You are safer in a low, flat location. Do not try to outrun a tornado in a vehicle.

Watch for flying debris. Shield your head and neck with your arms and put materials such as furniture and blankets around you. Cover your mouth with a cloth or mask to avoid breathing dust.

After a storm, reserve phone calls for emergencies. Phone systems are often down or busy after a disaster. Use text messaging or social media to communicate with family and friends.

Be careful during cleanup. Wear thick-soled shoes, long pants and work gloves. Stay clear of fallen or broken utility lines.

Do not enter damaged buildings until you are told they are safe. As with floods, be aware of electrocution risks. ■

Be Prepared for Outages

Severe weather often results in interruption to electrical service.

To stay safe and more comfortable during a power outage:

- ▶ Before an outage, take inventory of the items you need that rely on electricity. If you plan to use a generator, make sure it is properly sized for what you plug into it and that it is not directly connected to household wiring unless a transfer switch has been installed by a licensed electrician. Use generators outdoors, away from windows.
- ▶ Put together an emergency kit. Include flashlights with extra batteries, a radio, nonperishable food, water and first-aid supplies.
- ▶ Talk to your medical provider about a plan for devices powered by electricity and critical medicines that require refrigeration.
- ▶ Keep mobile phones and other electric equipment charged, and gas tanks full ahead of a storm.
- ▶ Monitor weather reports.
- ▶ During an outage, disconnect appliances and electronics. Power may return with momentary surges or spikes that can cause damage.
- ▶ Keep freezers and refrigerators closed. The refrigerator will keep food cold for about four hours. A full freezer will keep the temperature for about 48 hours.
- ▶ Do not use a gas stove to heat your home. Go to a community location with power if necessary.
- ▶ Check on your neighbors. Older adults and young children are especially vulnerable to extreme temperatures.
- ▶ After an outage, throw away any food that has been exposed to temperatures 40 degrees or higher for two hours or more, or that has an unusual odor, color or texture. If power is out for more than a day, discard medication that should be refrigerated, unless advised otherwise by a medical professional.

Low-Cost Energy Tips for Renters

Save on your energy bill without investing major dollars on energy efficiency

By Pat Keegan and Brad Thiessen



Get the most out of hot water use by only washing full loads of dishes.

Homeowners have a number of ways to make energy-efficiency improvements to their home and save money, but what about folks who are renting or don't have a lot of money to spend? While not everyone can replace their furnace with an air-source heat pump, here are seven low-cost efficiency tips that can help reduce your energy bills.

- **Mind the thermostat.** You can trim your energy bill by managing the temperature in your home. The Department of Energy suggests setting your thermostat to 68 F in winter. If that's too cool, try other ways to stay warm, such as layering with an extra sweater. You can save more energy by turning down the thermostat even lower at night or when no one is home. The same principle works in reverse during summer months. Set the thermostat higher to reduce your energy use for air conditioning.



- **Go programmable.** If you don't always remember to adjust your thermostat manually, you could benefit from a programmable model. In the right situation, set correctly, programmable thermostats can save \$150 a year. Some programmable thermostats can be managed from your smartphone or other devices. Before you buy and install a programmable thermostat, make sure your landlord approves.

- **Try zone heating.** If you don't mind less-used rooms being colder, you might be able to save energy and money by using zone heating. Electric baseboards make it easy because they typically have thermostat settings on the units in each room. Portable electric space heaters can also be a good tool for zone heating if used safely and wisely in the area you spend the most time. Keep in mind, if you're using space heaters, you need to reduce the heating you supply to the rest of the home. Space heaters that are used incorrectly can be dangerous and increase energy costs. If your heating system needs to be replaced, talk to your landlord about installing a mini-split system, which is perfect for zone heating and cooling, and easier to install than a new duct and furnace system.

- **Stop air leaks.** Small gaps around windows, doors, wiring and plumbing penetrations can be major sources of energy loss. This problem can be alleviated with a little weatherstripping and caulk, but check with your landlord before you get started. Better yet, convince the landlord to do the work! A \$10 door draft stopper—also known as a door snake—is a simple way to block gaps underneath exterior doors. Sealing air leaks around your home could shave up to one-fifth of your heating and cooling bills.



- **Manage your windows and window coverings.** Your windows may be letting heat out during the winter and letting heat in during the summer. Medium or heavy-weight curtains and thermal blinds can help. On cold winter days, window coverings can keep warmth inside and improve comfort. Opening window coverings when you are receiving direct sunlight is a passive solar technique that can help cut your heating costs. In winter, cover windows with clear plastic to reduce heat loss and air



Installing clear plastic on windows during winter months is easy, and can reduce heat loss and air leaks.

Photo by James Dulley

leaks. During the summer, keep window coverings closed to block the sun and keep windows from heating the cooler indoor air.

- **Look for energy wasters.** There are small steps you can take every day to reduce your energy use. Water heaters should be kept at the warm setting of 120 F. Wash dishes and clothes on the most economical settings that will do the job, and always wash full loads. Use the microwave instead of the oven when possible.

- **Ask landlords—and others—for help.** Consider talking to your landlord about additional ways to save, such as installing better insulation, energy-efficient windows or heating systems. Many landlords make these types of investments to add appeal to their rental properties, which ultimately improves the value of the property. A home energy audit is the best way to identify areas for energy-efficiency improvements, and to start a conversation with your landlord about potential improvements. Check with your electric utility to see if it offers energy audits or can recommend someone. ■



Energy-Saving Behaviors

Saving money on your energy bill is about more than making energy-efficiency improvements to your home. It involves how you use energy. Small changes can net big savings. Consider these changes:

- ▶ Use natural daylight when possible. Use efficient lightbulbs, such as LEDs. When you leave a room, turn off the lights.
- ▶ Avoid blocking heating and cooling registers with furniture or drapes. Dust or vacuum registers so heated or cooled air flows freely.
- ▶ Keep all doors and windows closed while heating or cooling your home.
- ▶ When using the oven, prepare several items at the same time. On the stove, cover pans and use as little liquid as possible to cook food faster. Use pans that fully cover the burner for best heat transfer. Avoid warped pans on electric burners.
- ▶ Let hot food cool down before you put it in the refrigerator.
- ▶ If you don't have an automatic air-dry switch on your dishwasher, turn off the control knob after the final rinse and open the door a little to allow dishes to air dry.
- ▶ Instead of a bath, take a short shower, setting a timer to remind you when time is up. Showers typically use less hot water. Install a water-saving low-flow showerhead.
- ▶ Don't leave the water running while brushing your teeth or shaving.
- ▶ When washing clothes, avoid using hot water when possible.
- ▶ Hang clothes outside when it is sunny. After each dryer load, clean the lint filter. Check the dryer vent hose twice a year to make sure it isn't clogged. A dirty filter and clogged hose restrict air flow.
- ▶ Keep your fireplace damper closed when not in use to prevent heated air from escaping.

'Smart' Not Necessarily Efficient

Technology puts control in hands of consumers

By Derrill Holly

Home automation systems are placing control in the hands of consumers, but questions remain about the best ways to use systems to save money and energy.

"Most smart home technology is about comfort and convenience," says Brian Sloboda, director of consumer solutions for the National Rural Electric Cooperative Association. "Consumers interested in saving money on monthly energy purchases should look at internet-connected thermostats first."

Around half of all thermostats sold today are smart thermostats. These devices have the potential to reduce air conditioning energy consumption by 10%. During winter months, the thermostats could save 7% on energy used to heat the home.

Brian has watched home automation systems evolve. He is particularly interested in identifying ways to enhance efficiency and savings.

"Laundry, dishwashing and water heating can be set to occur outside of your co-op's (or your utility's) peak demand periods, which typically are during weekday business hours," Brian says.

NRECA is working with one of the Department

of Energy's national laboratories on a demonstration project examining energy-saving options that could time-shift some activities. However, Brian says actual cost savings for the consumer is likely to be limited.

"Pool pumps, dishwashers, thermostats and car chargers can learn their owners' behavior and then communicate with the utility so the data can be used for demand response," Brian says. "The goal is to determine if a system like this can be implemented without inconveniencing the consumer, providing energy demand savings to the utility."

Security system notifications and thermostat controls that adapt to home automation are among the most popular options available.

"There are different kinds of smart when it comes to smart appliances and devices," says Peter May-Ostendorp, principal researcher at Xergy Consulting, which specializes in emerging technologies for energy savings in buildings. "For some, smart simply means 'We connected this thing to the network,' which adds minimal value to the consumer. In other products, smart means that there is some intelligence either built into the product or connected via the cloud that enables a taste of artificial intelligence."

Not every product using artificial intelligence is designed to save energy. In many instances, energy use is secondary to convenience or connectivity.

"Most smart devices have nothing to do with energy use, grid management or other resource conservation, like saving water," Peter says. "Generally, the benefits—dollar savings to the consumer—have not been proven, with the exception of smart thermostats, grid-connected water heaters and similar devices."

According to the Environmental Protection Agency, interest in connected or smart appliances is trending upward among consumers. Manufacturers are responding with a growing list of products.

"If you are thinking of purchasing a smart appliance or thermostat, look for one that is Energy Star-certified with connected functionality," EPA officials suggest. "Those that meet our criteria are designed to encourage interoperability and offer the following features: low energy use, energy use reporting and consumer ownership of all data."

Products available include room air conditioners, refrigerators and freezers, laundry equipment, light-bulbs and fixtures, and power strips.





Today, more than **4,000 smart devices** are available to consumers.

A recent international survey asked people how they are using smart home assistants.

65% check weather and news, and play music

6% control lighting, televisions and other appliances



While owning a smart product doesn't automatically save you energy, if you are smart about using them, they can make a significant difference in your home, according to EPA officials.

That means making the investment pay off could take lifestyle changes.

"I don't think many people want infinite control over dozens of appliances and systems in their homes," says Spencer Sator, president and CEO of Crimson Consulting, an energy-efficiency adviser. "What we really want is set-it-and-forget-it features that we don't have to actively manage. The best devices get installed, adjusted and the consumer can walk away and still potentially save some energy."

Spencer says consumers are looking for simplicity. That's feeding the popularity of virtual assistant technologies such as Amazon's Alexa and Echo, Google Assistant and Apple HomeKit. Other companies—including Samsung, Logitech and Wink—offer home-management hubs and platforms designed to help manage connected technology.

Convenience and programming simplicity are among the most important factors fueling consumer acceptance of what Spencer describes as "home ecosystem" products. Home security controls—including locks, alarm systems and lighting—are popular.

"We're seeing adoption of the technology not necessarily for energy-saving reasons, but for life-enhancing applications, including some that help elderly consumers maintain independence in their homes," Spencer says.

The challenge for consumers is deciding which features justify the investment, and how well products work together under a particular hub device or app.

"No one wants a hodge-podge of technologies that can't communicate with each other," Spencer says. "The technology isn't very smart if devices can't work together."

Command, Control and Energy Savings

Artificial intelligence is changing the way we live, and that has the potential to bring major changes to the way we use energy.

Smart home automation allows folks from all income levels to become more energy efficient. Using a platform to further tie together appliances and loads, consumers can pick and choose their preferred efficiency routes depending on their lifestyle and budgets.

According to the Consumer Technology Association, about 5.5 million units of Wi-Fi enabled devices are added to the internet each year. By 2020, the total is expected to surpass 21 billion.

That prediction has designers and manufacturers of consumer products looking for new ways to add value to products with Wi-Fi enabled features.

As artificial intelligence devices create opportunities for home automation, consumers will play larger roles in deciding how and when systems in their home are controlled.

Smart thermostats have been around for a while. Some electric utilities offer discounted smart thermostats to not only encourage consumer savings, but to help manage peak energy demand.

As the energy sources we use to generate power evolve—and management of the electric grid becomes more agile and sophisticated—the true potential of energy load control provides opportunities for more savings through wholesale power supply.

That's challenging electric utilities to find ways to strengthen partnerships with consumers who are more interested than ever in actively managing their energy use. Two-way, real-time communications and artificial intelligence offer opportunities to learn consumer preferences and how best to reduce energy during peak demand periods.

"We could soon see serial commands allowing your appliances to interact with other devices," says Keith Dennis, senior director of strategic initiatives for the National Rural Electric Cooperative Association. "Your HVAC system could learn your schedule and regulate heating and cooling for your comfort based upon when you are home. Instead of maintaining a steady supply of hot water when no one is home to use it, water could be heated during periods when demand is lowest and electricity costs less, and then boosted to ideal temperatures to meet specific needs like bathing, laundry or washing dishes."

Thus far, expectations are not being met.

"The Jetsons-like experience—where your Fitbit recognizes you're awake, tells the coffee to brew, queues up your morning news on a smart speaker, ramps up the heating setpoint—isn't really happening," Peter says. "People have thought that Alexa or Google Home might be the answer, but do we all really want to talk to our home, Star Trek style, to accomplish basic tasks?"

From a technology perspective, Spencer says, "This is still the Wild West. When you consider available options and actual performance of the devices available, some gadgets perform well and can save consumers money and energy, while others don't measure up to the hype." ■

Celebrating the Power of Community

Public power utilities mark their local heritage and impact in October

By Pam Blair

Flip a light switch. Plug in a cellphone. Run a load of laundry. As long as it is there when you need it, odds are you don't even think about where your electricity comes from.

But your power is more than a convenience. It's a rich, locally-grown heritage built by people like you. Each October, we celebrate the impact of public power. October is National Cooperative Month, and the first week of October is Public Power Week.

From remote rural farming communities to booming suburbs and large cities, electric cooperatives and public power utilities collectively provide reliable, low-cost electricity to more than 90 million Americans across all 50 states.

Publicly-owned utilities first appeared more than 100 years ago when communities came together to provide light and power to areas overlooked by profit-driven utilities. By joining forces to take care of their local needs, citizens discovered they are more powerful together.

Although structurally different—electric cooperatives are run by member-elected boards while public power utilities run as a division of local government—both are not-for-profit businesses, with a keen eye on doing what is best for the people and businesses they serve.

But providing affordable electricity is just the start for publicly-owned utilities. More than utilities, they are powerful community partners working hand-in-hand with consumers to make life better in the areas they serve.

A Local Lifeline

Decisions about how publicly-owned utilities run are made by the people who live and work in the community. Local needs are considered when looking at rates and services, power generation and renewable energy alternatives.

By contrast, investor-owned utilities are controlled by shareholders who often are not customers and do not live in the community. Their goal is to operate the utility in a way that maximizes the return on their investment. Board meetings are conducted in private, and decisions are made behind closed doors.

Public power consumers—or members, in

BY THE NUMBERS

Public power utilities:

- ▶ Service provided by **2,000** PUDs and municipals in all states except Hawaii.
- ▶ Serve 1 in 7 Americans, or **49 million**.
- ▶ Average **48 consumers** per mile of line.

Electric cooperatives:

- ▶ Service provided by **832** co-ops in all states except Connecticut and Massachusetts.
- ▶ Serve more than **42 million** Americans.
- ▶ Average **7.4 members** per mile of line.

the case of electric co-ops—have a direct voice in utility policymaking, with an opportunity to express the community's values and priorities at meetings that are open to them.

Built by and belonging to the communities they serve, publicly-owned utilities are led by community members uniquely qualified to ensure the focus remains local.

Because member/consumers have a say at the ballot box in who represents them, they retain control. If they disagree with the direction of the elected board, they can run for a seat and help shape the utility's future.

With public utilities, you are more than a number. You are a valued member of the team—and your voice matters.

Expert, Innovative Solutions

Because publicly-owned utilities aren't motivated by profits to sell more power, they care about helping consumers reduce energy use and lower power bills through everything from simple energy-efficiency measures to cutting-edge technologies.

Even though most electric cooperatives added members in 2017, residential power use dropped by 2%, according to the National Rural Electric Cooperative Association.

Energy-efficiency and rebate programs vary based on local priorities. Some utilities provide energy audits to help consumers find the best ways to cut costs and improve comfort. Others offer rebates to help offset the cost of

Take a Moment

October is a time to reflect on the benefits of being served by public power.

Electric co-ops join credit unions, food co-ops and other member-owned businesses each October to celebrate National Cooperative Month.

Public power utilities across the U.S. celebrate Public Power Week the first full week of October.

By understanding what makes your member- or community-owned utility special, you can better benefit from its offerings.



implementing efficient changes.

Innovation drives public power. Since 2010, electric co-ops have 145% more renewable energy capacity. Community solar projects give consumers a way to support local renewable power development. Wind is picking up too. Electric co-ops generate enough wind to power 2 million homes. To store renewable energy for the times it is needed most, public power utilities support battery storage research.

Public power utilities also are laying the groundwork to support electric vehicle use. By providing public charging stations and coaching consumers on the best times to charge, local energy experts are helping consumers tap into energy technology trends affordably.

Driven to Make a Difference

In areas served by public power, the community directly benefits. Powered by a shared vision, America's public power utilities drive local economic development.

Public power employs 93,000 people in

hometown jobs and invests more than \$2 billion annually directly back into the community, according to the American Public Power Association. NRECA says electric cooperatives support 68,200 local jobs and invest \$12 billion annually in local economies.

But publicly-owned utilities provide more than jobs. Community-funded scholarships strengthen local talent pools. Public power staff volunteer in hometown groups.

These community-first utilities also give communities room to grow. They provide efficient, smart electricity to current businesses, while investing in a smarter grid and robust infrastructure to attract new businesses to the areas they serve. Every step is backed by the voices of local member/consumers like you.

Think about where your power comes from, and how you can get involved. You are a part of this continued success story.

Our community is more powerful when everyone works together to make our shared vision a reality. ■

Nick Erickson, maintenance and project manager at Diamond Fruit Growers, worked with the energy experts at Hood River Electric Cooperative to cut energy waste, improve operations and lower the fruit co-op's energy bill. It is a great example of the community-utility partnership that is a hallmark of publicly-owned utilities.

Photo by Drew Myron

Learn more about locally-owned power at www.publicpower.org and www.electric.coop.

HARVEST SAFETY TIPS FOR FARMWORKERS

- Maintain a 10-foot clearance around all utility equipment in all directions.
- Use a spotter and deployed flags to maintain safe distances from power lines and other equipment when doing field work.
- If your equipment makes contact with an energized or downed power line, contact us immediately by phone and remain inside the vehicle until the power line is de-energized. In case of smoke or fire, exit the cab by making a solid jump out of the cab, without touching it at the same time, and hop away to safety.
- Consider equipment and cargo extensions of your vehicle. Lumber, hay, tree limbs, irrigation pipe and even bulk materials can conduct electricity, so keep them out of contact with electrical equipment.

Source: Safe Electricity



Keeping Overhead Power Lines Clear

Wasco Electric Cooperative works hard to provide safe and reliable service to its members. One of our most challenging and expensive maintenance items includes keeping overhead lines clear of vegetation.

Through the years, WEC has maintained an intense tree-trimming program of our distribution system's right-of-way. However, in recent years an increase in the number of hazardous trees near our power lines has become more prevalent within WEC's service territory.

"On regular line inspections, pine trees are looking healthy and not posing a threat," says Operations Manager Casey McCleary. "Then the next inspection, they become a hazard and need to be addressed."

A hazardous tree is identified as a visibly dead, diseased, dying or unstable tree near power lines. Bark beetles are one of the leading causes of hazardous trees throughout WEC's service territory. Bark beetles can detect when a tree is stressed from drought, root disease and storm damage. That is when they attack, burrowing through the bark to lay their eggs and killing the tree.

Suggested guidelines to properly eliminate a hazardous tree



Above, contractor crew Trees LLC ropes off a hazardous tree at the top to safely fall it away from Wasco Electric Cooperative's three-phase line in the Wamic area. Above left, a fallen hazardous tree shows disease.

are to delimb the tree of all branches, cut the tree into sections to allow for safe falling, and leave the tree on site to eliminate the transportation of infested trees.

Trees LLC, our licensed tree-trimming contractor, is eliminating hazardous trees by addressing them as they are brought to management's attention through regular line inspections or when members notify the office.

If you suspect there is a hazardous tree on your property near power lines, contact the cooperative office at 541-296-2740 and let us know the location of the tree. ■

Member Satisfaction Survey Coming Soon!

Central Electric wants to hear from you.

Take the member satisfaction survey online at www.cecsurvey2019.com
(You will need your account number to log-on)

Opens September 15 and ends October 15, 2019

WIN \$\$\$ OFF YOUR FEBRUARY ELECTRIC BILL!

1st Place - \$500 2nd Place - \$250 3rd Place - \$100

Your participation will automatically enroll you for a drawing.
CEC will announce the winner in November.



**CENTRAL ELECTRIC
COOPERATIVE, INC.**



Help Us Build On Our Green Legacy



Invest in a Cleaner Future Starting Today for as Little as \$1.80 a Month

Central Electric created the Green Power program to help build clean, renewable energy projects. Since 1998, members' voluntary participation have supported:

- 5.6 megawatt Coffin Butte landfill gas-to-electricity renewable energy facility; and
- 200,000-watt community solar project—first of its kind in Oregon at the time it came online.

100% Renewable Energy

The Green Power program costs as little 1.8 cents per kilowatt-hour—\$1.80 for 100 kilowatt-hours. Or you can choose to invest more!

Your financial contributions will help build, expand, and secure Central Electric's renewable energy future.

Action is Easy.

Fill out and return this form, visit www.cec.coop/green-power, or call (541) 548-2144.

Help us build on our green legacy and invest in a cleaner future today!



**CENTRAL ELECTRIC
COOPERATIVE, INC.**

Green Power Sign-up Form

Account Name: _____

Account Number: _____

I wish to purchase the following amount of Green Power every month:

- | | | |
|---|---|---|
| <input type="checkbox"/> 100 kWh (\$1.80) | <input type="checkbox"/> 400 kWh (\$7.20) | <input type="checkbox"/> 1500 kWh (\$27.00) |
| <input type="checkbox"/> 200 kWh (\$3.60) | <input type="checkbox"/> 500 kWh (\$9.00) | <input type="checkbox"/> 2000 kWh (\$36.00) |
| <input type="checkbox"/> 300 kWh (\$5.40) | <input type="checkbox"/> 1000 kWh (\$18.00) | <input type="checkbox"/> All my power |

I agree to purchase Green Power in the amount indicated for 12 months, at a premium of 1.8 cents per kilowatt-hour more than the average residential rate of 7.57 cents per kilowatt-hour (the average of CEC's winter and summer rate). I understand that my agreement will be automatically renewed at the end of 12 months unless I notify CEC that I no longer wish to participate in the Green Power program.

Mail form to: Central Electric Cooperative, P.O. Box 846, Redmond, OR 97756



Coos-Curry Electric Cooperative crews clear damage from a storm in 2012. Having supplies on hand is critical to successfully dealing with an extended power outage.

Don't Wait. Be Prepared Before the Storm.

By Anne Prince

It's your worst-case scenario. A major storm was predicted, and this time, the predictions were right. Many power lines are down, and your electricity may be out for several days. You are low on everything: food, pet supplies, toilet paper, batteries, diapers and your medication.

This was more than just a scenario for our neighboring utilities in Douglas and Lane counties in February when record snowfall leveled trees, closed highways and created historic extended power outages to thousands of rural communities with widespread damage. Coos-Curry Electric Cooperative crews were able to help restoration

efforts in the Lane Electric Cooperative service area, where many members were without power for a week or more.

Imagine how you would feel in this situation.

While you can't predict which weather forecast will come true, you can plan ahead so when a severe weather event strikes, you have the tools and resources to effectively weather the storm.

The Department of Homeland Security offers several resources to help you prepare for major weather events and natural disasters. Visit www.ready.gov/make-a-plan.

Preparedness Actions and Items

Stock your pantry with a three-day supply of



nonperishable food, such as canned goods, energy bars, peanut butter, powdered milk, instant coffee, water, and other essentials such as diapers and toiletries.

Confirm you have adequate sanitation and hygiene supplies, including towelettes, soap and hand sanitizer.

Ensure your first-aid kit is stocked with pain relievers, bandages and other medical essentials, and make sure your prescriptions are current.

Set aside basic household items you will need, including flashlights, batteries, a manual can opener, and a portable battery-powered radio or TV.

Organize emergency supplies so they are together in an easily accessible location.

With Advance Warning

If a severe storm with gale-force winds and sustained rain is expected, you may need to take extra steps to safeguard your home. Shutter windows and securely close exterior doors. Fully charge all cell-phones, laptops and devices so you have maximum power in the event of a power outage.

If you plan to use a small generator, make sure it is rated to handle the amount of power you will need, and always have a licensed electrician wire your home or building's electrical system into a generator. An incorrect connection could cause power to backfeed through the meter and into CCEC's power lines. When linemen are working to restore your power, backfeeding puts them at risk of encountering the unidentified power source you created, resulting in injury or death.

During a Prolonged Outage

In the event of an outage, turn off appliances, TVs, computers and other sensitive electronics. This will help avert damage from a power surge, and will help prevent overloading the circuits during power restoration. That said, leave one light on so you will know when power is restored.

If using a small household generator, consider using LED holiday lights to illuminate a living area. A strand of 100 white lights draws little energy, yet produces considerable light. Solar lights also work, if they can receive some sunlight during the day for charging.

During thunderstorms, the American Red Cross recommends avoiding electrical equipment and land-based telephones. Use battery-powered TVs and radios instead. Keep away from windows. Listen to local news or NOAA Weather Radio for emergency updates, and check CCEC's Facebook page or website for restoration updates.

After the storm, avoid downed power lines and walking through flooded areas where power lines could be submerged. Allow ample room for utility crews to safely perform their jobs, including on your property.

Power in Planning

Advance planning for severe storms or other emergencies can reduce stress and anxiety caused by the weather and lessen the impact of the storm's effects. Sign up for NOAA emergency alerts and warnings.

Act today, because there is power in planning. ■

Build Your Emergency Supply Kit

Assemble everything you need for a robust emergency kit by buying or collecting a few items each week over the course of three months. Here is the third of three shopping lists to help you gather supplies. See last month's issue for the second list.



WEEK 9: Grocery Store

- 1 large can juice
- 2 boxes energy bars/snacks
- Plastic food bags and aluminum foil
- 3 rolls paper towels
- Paper plates, cups and utensils
- **BONUS:** Backup/copy important computer files, photographs, documents, etc. Send a copy to an out-of-state family member or friend.

WEEK 10: First Aid

- Diarrhea medicine, allergy medications
- Vitamins
- Latex gloves
- Rubbing alcohol
- **BONUS:** Speak to neighbors about who may need help during an emergency, such as the elderly or disabled. Discuss who can help your children if an emergency occurs when you are not home.
- **BONUS:** Include extra clothes in your supply kit.

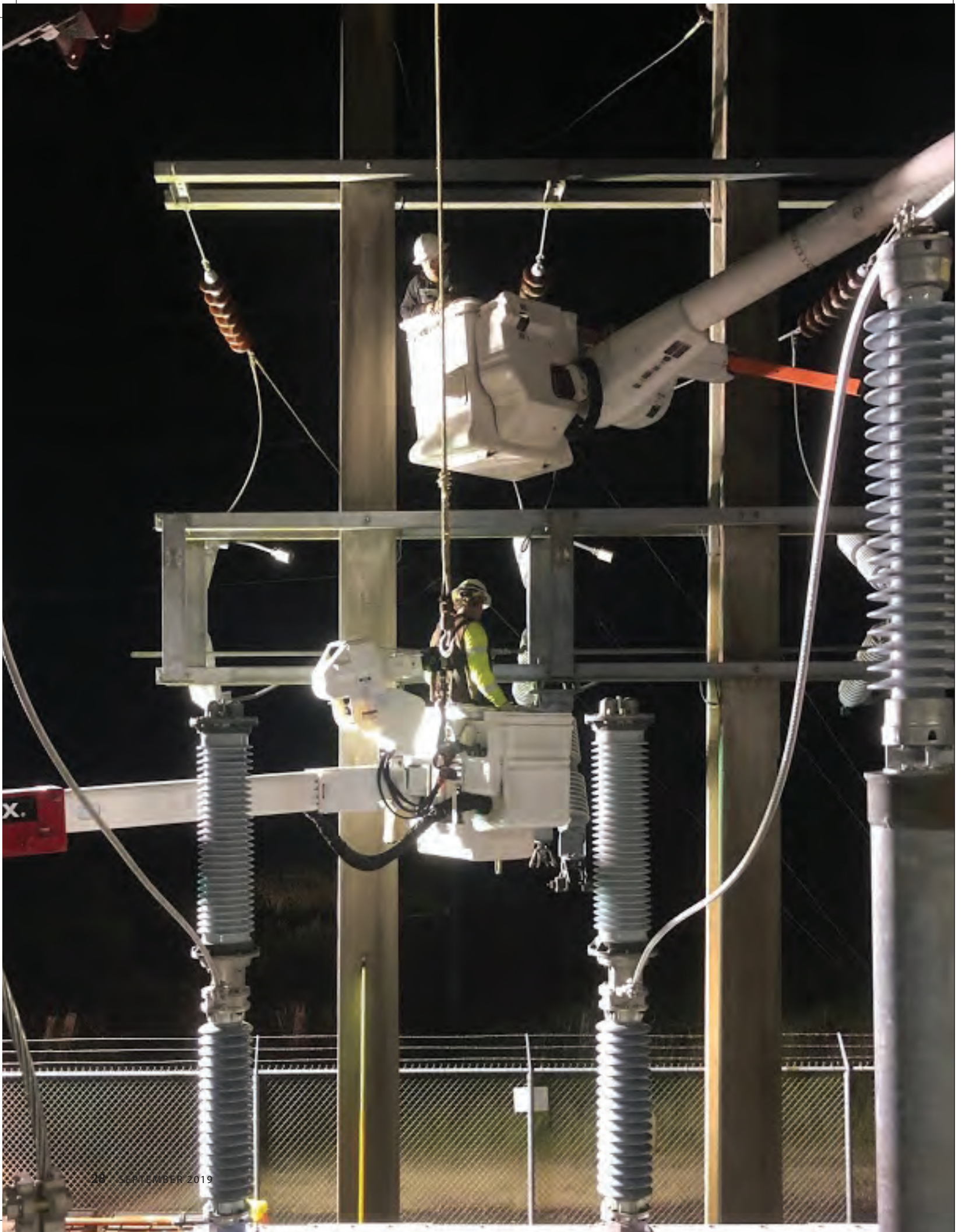
WEEK 11: Hardware and Supplies

- Fire extinguisher

- Pliers and work gloves
- Extra batteries for flashlight and radio
- Extra nails and screws
- Emergency blankets and rain protection
- **BONUS:** Find out about your workplace's emergency preparedness plan
- **BONUS:** Include cash in the kit as you are able

WEEK 12: Grocery Store

- Dry cereal and crackers
- Quick snacks
- Assorted plastic storage containers with lids
- Instant coffee, tea, drinks, etc.
- **BONUS:** Have an earthquake or severe weather drill at home.
- **BONUS:** Replace your emergency supply of water every six months.
- **BONUS:** Buy food you enjoy. This will make it easy to rotate your supplies and keep them fresh. Find occasions to swap out your emergency food supplies such as a camping trip or food donations.
- **BONUS:** Mark your food with the purchase date—especially for perishable items. Take note of expiration dates of food.



Construction Projects Strengthen Blachly-Lane's System

By Pam Spettel

This summer, Blachly-Lane crews have focused their energy on projects to improve the reliability and safety of the electric system.

Keeping our system strong is the goal of Blachly-Lane's capital improvement plan, which was started five years ago to address the years of deferred maintenance.

Blachly-Lane members spoke out about the lack of service reliability, and the co-op responded.

The following projects are planned or have been completed this construction season.

Parker Substation transformer replacement, feeder cable replacement and raptor protection. In late September, a larger transformer will replace an under-capacity one, giving Parker Substation adequate capacity to serve our industrial load. The new transformer comes with a maintenance-free load tap changer to replace the aging single-phase regulators, which will cut down on upkeep costs.

Two feeder cables will be replaced with larger conductor to balance the load between the two transformers. This project includes boring under Highway 99 and installing new 6-inch conduit for the feeder cables and new vaults.

Parker Substation has numerous outages due to birds. Increasing the amount of bird guard lessens the number of outages in the industrial corridor and limits the liability we face due to fires.

Alderwood 115-kilovolt circuit switcher installation. This summer, we completed construction of footings and foundation at Alderwood and installed and tested a new circuit switcher to protect the power transformer and the downstream 34.5-kV transformers. This new equipment matches the protective devices found in the Parker and Junction City substations, standardizing Blachly-Lane substations for greater efficiency.

Distribution cable replacements. This ongoing project supports our continuing effort to improve reliability for our members. In the past, most of our underground cables were installed without conduit, making replacement costly. This will harden our system by upgrading the hardware on the riser poles and at the same time installing sleeves under our equipment to allow for safer and more efficient operation.

Overhead line capital improvements. This project supports our strategic plan to improve member reliability and service. Blachly Lane tests and treats approximately 10% of its nearly 7,000 wood poles each year. This project hardens our system by upgrading line subject to outages.



Above, Blachly-Lane crews replace a pole with a unique side arm design. Photo by Matt Smith. Opposite page, crews make Alderwood Substation improvements. Photo by Jeff Jones

Transformer replacement. This project supports the strategic objectives of reliability and member satisfaction. Distribution transformers are subject to failure each year due to overloading, storm damage and lightning damage. Replacement is required due to leaking gaskets and seals. Transformer replacement is done on an as-needed basis throughout the year.

Fuse coordination and reliability study. This engineering study on the newly rebuilt High Pass Substation will be a model for the rest of our system to increase reliability by reducing the number of consumers out per outage and by reducing the time it takes to restore outages.

Indian Creek Substation fence/rock. This safety-related work repairs holes in the substation fencing and re-rocks the graveled area to maintain the insulation integrity of the substation rock. This work is expected to be completed in September.

Oil Circuit Reclosers replacement/upgrade. BLEC's aging reclosers harm our overall reliability. This ongoing project maintains some existing reclosers and replaces others with updated versions that require less maintenance.

Three-phase Service on Evers Road. Due to the increase in load and the number of splices in the primary conductor, we will add two additional conductors to this 16-span tap in November. This service reliability project will make three-phase service available to our members who have not previously had that option. ■

Look Up During Harvest Season

Farmers are urged to remember electrical safety when out in the fields

By Molly Hall

For farmers across the nation, harvest brings long, grueling hours in the field. This can cause workers to be weary and prone to forget the safety precautions that can prevent serious or fatal electrical injuries. Every year, an average of 62 farmworkers are electrocuted in the United States and many more are injured, according to Labor Department statistics.

O TEC and Safe Electricity urge farm operators, family members and employees to beware of overhead power lines, keep farm equipment safely away and know what to do if accidental contact is made with power lines.

The increasing size of farm equipment—particularly grain tanks on combines that have become higher with extensions—allow operators to come perilously close to overhead power lines. Before operating farm equipment, it is essential to be aware of electric facilities in the harvest areas and to keep farm equipment a safe distance from all electric lines.

“The No. 1 cause of electrocution on the farm is an auger that hits a power line when being moved,” says Bob Aherin, extension agricultural safety specialist at University of Illinois.

Portable augers being maneuvered by hand around bin sites have caused the death of many farmworkers who became the path to ground for electricity when the top of the auger touched overhead power lines. Always retract or lower augers when moving or transporting.

The most common equipment involved in power-line accidents are portable grain augers, oversized wagons, large combines, and other tall equipment that come into contact with the overhead lines.

“Harvest time is the most likely period for farm-related injury accidents and fatalities,” Aherin says.

Combines and other equipment loaded onto trailers also can hit power lines and cause electrocutions, as can raising the bed of a truck to unload. That is exactly the reason for the tragic electrocution of a 53-year-old Michigan truck driver who raised the bed of his semitrailer truck while parked beneath a power line at the edge of a field. Colleagues said he was attempting to clean out the bed. When he touched the truck bed, he became the path to ground for the electricity.

Farm operators, family members and farm employees are urged to take these measures:

- Use a spotter when moving tall loads near lines.
- Inspect equipment for transport height. Determine clearance with power lines under which equipment must pass.



Keep harvest equipment a safe distance from all electrical facilities. Call your local Oregon Trail Electric Cooperative office if you have any concerns.

Photo courtesy of the Safe Electricity and the Energy Education Council

- Make sure everyone knows what to do if accidental contact is made with power lines.

“It’s almost always best to stay in the cab, call for help and wait until the electric utility arrives to make sure power to the line is cut off,” Aherin says. “If the power line is energized and you step outside, your body becomes the path and electrocution is the result. Even if a power line is on the ground, there is still the potential for the area nearby to be energized. Stay inside the vehicle unless there’s fire or imminent risk of fire.”

In that case, the proper action is to jump—not step—with both feet hitting the ground at the same time. Jump clear, without touching the vehicle and ground at the same time, and continue to shuffle or hop to safety. Keep both feet together as you leave the area.

“Like the ripples in a pond or lake, the voltage diminishes the farther out it is from the source,” Aherin says. “Stepping from one voltage level to another allows the body to become a path for that electricity. A large difference in voltage between both feet could kill you. Be sure that at no time you or anyone touches the equipment and the ground at the same time. Never should the operator simply step out of the vehicle. The person must jump clear.” ■

To learn more about electrical safety, visit www.SafeElectricity.org.

Attention, Photographers

Your photo could be on the cover of Ruralite magazine

Oregon Trail Electric Cooperative is hosting a Ruralite cover photo contest. Photos will be judged by Ruralite magazine.

- Contest is open only to OTEC members.
- Each member can submit up to three photos.
- Submitted photos must be vertical (portrait) orientation.
- All submissions must include the photographer's name and location of the photo.
- All submitted photos must be taken within the OTEC service territory.
- Submissions must be high-resolution, digital images in jpeg format, 300 dpi at approximately 8-by-10 inches.
- Prints WILL NOT be accepted.

Email your high-resolution photos to communications@otecc.com. Winning photos will be featured on the covers of the OTEC edition of Ruralite throughout the year. Winners also will receive a \$100 gift card and a poster print of the cover with their winning photo.

Winning Tips:

- Make photos near sunset or sunrise. The light is low in the sky and makes for prettier landscapes.
- Include people doing interesting things such as kayaking, hunting, fishing or biking.
- Get close to your subject so it will fill the viewfinder.
- Only send your best photos.

By submitting photos to this contest, you agree to give Oregon Trail Electric Cooperative the right to use submitted photos on the cover of Ruralite magazine and on the OTEC website.



Contest Deadline: December 20, 2019

Charity Serves Those in Need

Bennettsville couple makes a difference in their community one plate at a time

By Vanessa Wolf

With a population of fewer than 27,000, census statistics show Marlboro is one of South Carolina's most economically challenged counties. Throughout the years, the once-thriving agriculture-based community has suffered from population and economic decline due to the mechanization of farming techniques throughout the mid-20th century.

More than 25% of the population lives in poverty, and many older residents depend on fixed Social Security incomes—a particular challenge when unexpected expenses arise.

Such widespread need can seem insurmountable, but Bennettsville residents Roger and Anne Griggs are determined to make a difference.

Borrowing some name-based inspiration from the same Myrtle Beach charity, Community Kitchen of Bennettsville was soon born. After defining the bylaws and establishing a board of directors, the Griggs' momentum shifted to finding a location for their operation.

"My wife and I have a little bungalow at the beach, and we spend a lot of time at it," Roger says. "I had an idea that we

were going to retire there, but all that changed one Sunday when our pastor started doing a sermon series entitled 'All In.' As I sat there, I felt like it was directed at me."

The message led the Griggs to make a tangible positive impact on their hometown.

"We'd felt led to do this for a few years," Roger says. "In 2016, we took some first steps and visited the Community Kitchen of Myrtle Beach. We spent some time down there looking at their operation and understanding the undertaking. When we came back from the beach, I proceeded to get our 501(c)(3) nonprofit status with the state."

"I made a vow that we would not solicit any outside funds until we had a suitable building," Roger says. "I wanted something that had or that we could convert into having a kitchen and which would also be suitable for serving food."

Soon after, Bennettsville Mayor Heath Harpe donated a building and propelled the mission further. Constructed in the 1940s, the former Buick car dealership had been vacant for 20 years and was in dire need of care.

"Heath gave us the building November 1," Roger says. "We started work that weekend."



Roger and Anne Griggs believe they were led to help serve their community.

Although the structure needed to be gutted, the four exterior walls and simple concrete floors provided a basic foundation. While Roger took stock of the situation, Anne created a Facebook page and put out a call for help.

"We started receiving volunteers," Roger says. "It was really humbling. People just started walking in. Folks would show up with a bag of tools and say, 'I hear you need some help.' Carpenters who had never met each other before came together and started forming teams."

Financed solely with funds donated by friends, family

and the Marlboro community, the Griggs set a six-month target date to serve their first meal. The building was ready by mid-April. Despite new walls, flooring and roofing, the fully functioning community kitchen was still just a notion.

"While we were working on the structure, my wife was working behind the scenes to gather volunteer teams," Roger says. "By May 1, she had arranged for 19 churches to come in one day per month. They cook, serve and clean up afterward."

The effort also includes crews from both the Marlboro



Clockwise from top left, community member Billy Cornell enjoys a hot meal prepared by Trinity United Methodist Church. A volunteer gets ready to serve drinks. Trinity UMC volunteers take their turn serving.

and Tatum Domtar Industries plants, as well as teams from the sheriff's department, the police department, the fire department and the Marlboro county administration office.

After buying food, the teams prepare and serve the meals.

"It's been so gratifying to see how well the community as a whole has responded," Roger says.

The operation is entirely debt-free. There are no paid positions. The 15 to 20 volunteers serve between 120 and 140 meals each day.

Offered Monday through Friday from 11:30 a.m. to 1 p.m., the kitchen has a strict "no questions asked" policy.

"If someone wants to pay for their meal, we don't allow that," Roger explains. "This is for those who can't afford it otherwise. We have a short devotion time for about five minutes before we serve the meals. We bring people in. We seat them, and then we serve them. We don't have them form a line here."

Above the front door of the kitchen is a sign printed with James 2:15-16: "Suppose a brother or a sister is without clothes and daily food. If one of you says to them, 'Go in peace; keep warm and well fed,' but does nothing about their physical needs, what good is it?"

The passage has resonated

with Roger throughout the project, inspiring plans for phase two of the Community Kitchen.

"The space next door is close to 3,000 square feet," Roger says. "The roof collapsed, but as part of a joint effort with Domtar Industries, we're going to make a really nice courtyard. The 'stay warm' part really stuck with me, so we'll have benches, and in the cold months, we'll have warm air circulating. We're also going to plant shade trees and put in at least three industrial fans to keep the air circulating during the hot summer days. This will be a safe place people can come and even stay if they want."

Any member of the community who wants to help is welcome to the phase two groundbreaking ceremony and workday Saturday, October 19.

The Community Kitchen also needs continued financial donations.

"Most churches have mission offerings they make," Roger says. "Charity that stays in the area can be just as important as money sent overseas. We hope church and other organizations will include us as part of their offerings."

Private individuals can donate through the charity's Facebook page or by sending a tax-deductible donation to Community Kitchen of Bennettsville, P.O. Box 31, Bennettsville, SC 29512.

All proceeds go toward helping a neighbor in need, and the money they might have spent on the meal can be put toward utilities or an unexpected expense.

"It's a helping hand, not a handout," the Griggs say. ■



Design Your Workout Plan

As a personal trainer, one of the guidelines I follow to help determine an individual's workout needs is called the FITT principle. FITT stands for frequency, intensity, time and type. This varies from person to person, and is a great way to help design your own workout plan.

Let's start with frequency and time. The standard recommendation for weekly exercise is 150 minutes a week. If you can exercise 150 minutes within a seven-day period, you're already on the right track.

For intensity, look at your goals. Are you trying to lose weight, build muscle or maintain? Personal goals are important when it comes to determining how difficult an exercise should be.

Your overall health is also significant. Be aware of any health limitations when determining the intensity of your workout. Never attempt something that may cause problems. Start with something easy and gradually work your way up.

Last is type. Look at your goals to

determine what type of exercises to perform. I believe resistance training should be included in every workout plan, even if you're only trying to lose weight or maintain. Resistance training not only helps build muscle, it increases bone density and metabolism.

Be sure to include some type of resistance training in your workout routine. Try to hit each major muscle throughout your weekly routine.

When trying to lose weight, cardio is also important. Plan for a cardio-based day or two within your workout program, such as walking, jogging or running.

Now it's time to combine type with intensity. Know what you can and can't do, and design your workout from there. A simple workout routine to follow for Monday to Friday could be:

Monday—chest, shoulders and triceps.

Tuesday—cardio and high-intensity interval training.

Wednesday—legs.

Thursday—cardio and HIIT.

Friday—back and biceps.


Hopefully applying the FITT principle



Combine strength training and cardio to start getting healthier today.

can help you determine a workout routine. If you need help, feel free to contact me via phone or text at 843-439-2049 or by email at TNolanFitness@yahoo.com.

I am happy to help you design a workout program based on your personal goals and needs. Investing in your own health is one of the best investments you can make for your life. ■



Tyler Nolan is a certified personal trainer. For fitness information, call 843-439-2049 or email TNolanFitness@yahoo.com.

Endless Summer

10 Ways to Extend Patio Season Year-Round

By Robin Howard

There's something relaxing about spending time on the patio grilling, eating, gathering with friends, reading and napping.

In South Carolina, we're lucky to have temperate weather most of the fall and winter. There's no reason not to enjoy your favorite outdoor space all year.

The key to year-round patio living is to notice how you use your patio in late summer and early fall, then add elements that make up for less daylight, greenery and natural warmth.

Below are 10 easy ways to get your patio ready for good times in cooler temperatures.

1 Cover up with sunbrella fabric

Don't store your furniture when the mercury drops. You may already know Sunbrella fabric stands up to sunlight, but did you know it's also designed to stand up to frigid conditions? Sunbrella patio cushions and pillows are made from a material that lasts approximately 10 years in any weather. They are sewn with thread that is three times stronger than typical thread used in outdoor cushions. Sunbrella fabric comes in a range of colors, patterns and styles. If you don't already have Sunbrella on your outdoor furniture, any local upholster can recover your cushions and pillows.

2 Keep a stash of Swiss Army blankets

Travel to a Nordic country in fall or winter, and you likely will see people sitting outside at cafes wrapped in bright wool blankets. Many restaurants have a set of signature blankets they loan to guests so everyone can enjoy an alfresco meal or drink during the day or early evening.

Swiss Army blankets are made of 75% wool, so they are warm and durable. Go for a set of vintage blankets from a military resale shop or buy a stack of reproductions online. Traditional Swiss blankets are off-white or oatmeal with orange or red stripes, not dour Army green. If you already have a stash of throw blankets, keep a stack in a big basket or on a ladder rack by the door so guests can help themselves.

3 Make a signature hot beverage

Whether it's from-scratch hot chocolate, mulled wine or warm oolong tea, keep a stash of your favorite warming beverage around so you can sneak in a few minutes of quiet patio time each day.



4 Up your outdoor lighting game

When days are short, there is nothing cozier than outdoor lights on the patio. Since South Carolina's bugs never take a break, be sure to choose warm yellow LED lights for a nostalgic glow that won't attract them. If you have a covered patio, create an outdoor living room by placing one or two outdoor floor or table lamps in your space. Outdoor lights are made of durable materials such as resin wicker and come with plugs rated for outdoor use.

5 Add a fire pit or fire table

If you have an open patio, a fire pit or fire table is an easy way to warm up on chilly evenings. Smokeless fire tables are about the size of a coffee table. They are made of composite stone and topped with lava rocks. Fire tables run on liquid propane and are easier to control than wood-burning fire pits.

If you love the nostalgic feeling of s'mores over a wood-burning fire, you can buy a metal fire pit for about \$100. DIY fire pits are easily built out of pavers and gravel for less than \$50. You can cook hot dogs and marshmallows on a fire table, but be sure to clean the burner and lava rocks afterward.



Outdoor string lights, cozy blankets, fire pits and creative decorating can extend your patio enjoyment well after summer.

6 Keep it green
Keep your patio space alive with evergreen plants and trees. We are zone 8a. Try Golden Sword yucca, Green Mountain boxwood, Japanese pieris and Bergenia in containers that have bright sun or light shade. Growing a winter vegetable garden will get you outside even when you're not entertaining or relaxing. In fall and winter, try your hand at broccoli, collards, onions, spinach, beets, cabbage, peas and cauliflower in containers.

7 Embrace play
It's easy to get in a rut of watching Netflix for months until spring returns. Be the couple that has wear-a-sweatshirt happy hours, the person who runs the martini flag up the pole in January and the family that plays lawn games in February.

8 Hang outdoor curtains
Outdoor curtains can block chilly breezes on a screened patio or porch and help retain heat from a porch heater. Most outdoor curtains are made of polyester, so they are durable. Pop them in the washer as needed and hang to dry.

9 Invest in a patio heater
Portable heaters can produce enough heat to make your patio as warm as a summer night. Most are less than \$100, are lightweight and have wheels, so they are easy to move. These heaters rely on a standard 20-pound propane tank hidden in the base. You can repurpose your gas grill tank. Make sure the heater has a safety feature that automatically shuts off the gas if it's tipped. Follow manufacturer recommendations to find the right size heater for your patio, and place it 3 to 4 feet away from walls and ceilings.

10 Hang a bedswing or hammock
If you have a covered porch or patio, a bedswing made from treated lumber with a mattress covered in Sunbrella fabric provides cozy seating year-round. Swap out lightweight cotton or knit throws for chunky wool or sturdy Swiss Army blankets. Although hammocks are usually associated with summer, you can winterize your rope or fabric swing by adding a sheepskin. Top it off with a warm blanket, and you will be ready for a toasty outdoor nap. ■

Living on Co-op Lines

By investing in more than the electrical system, EREC powers the community

Electric cooperatives are as local and community centered as they come. Founded as a way to bring electricity to rural areas, electric cooperatives have been a cornerstone of community and economic development in rural America and beyond for decades.

Living on co-op lines is more than just knowing there are people out there working to bring you safe, reliable and affordable electric service.

Living on co-op lines is an investment in our community and its members.

Escambia River Electric Cooperative is a not-for-profit business. Because we are owned by our members, we have a vested interest in making sure our community is prosperous. We do this by investing in economic development and community service projects. Youth athletics and academic programs benefit from our sponsorships, and students learn how to be safe around electricity through our safety demonstrations.

Each year, the community has the opportunity to participate in EREC's annual meeting. Members come together for a morning of family fun with entertainment, a magic



Right before the start of a new school year, EREC Lineman David Greene worked from a bucket truck to remove an empty nest from rafters at an outdoor pavilion used by Bratt Elementary students for physical education classes. Birds leave droppings on the concrete and occasionally knock down straw from the nests.

show for the kids and, of course, great door prizes. As part of the meeting, members also exercise their democratic control by voting on trustees for the cooperative and taking care of business matters.

As an EREC member, you can take pride in the fact you are an owner of your electric co-op. At times it may seem easy to take the provision of electricity for granted.

We work 24 hours a day, 365 days a year to make sure you, the member-owners of the co-op, are well taken care of when it comes to your electricity needs.

Locally based cooperatives believe this is a special bond,

and that they have an obligation to be an integral part of the community. EREC understands you can't sell electricity to a business that has closed its doors, or to people who have left the community because there are not enough local opportunities.

Electricity is a critical need, but it takes more than poles, wires and kilowatt-hours to make a community.

Through programs such as the USDA's Rural Economic Development Loan and Grant program, EREC is able to help new businesses receive funding and create jobs for our community.

Our community is strong.

Think about how much greater it can be when we work cooperatively to tackle our future challenges. If we act like owners on a consistent basis, we will put even more care and attention into our community, and we will look locally for solutions. Finding local solutions can help keep money—and people—here in northwest Florida.

We hope you view EREC not just as your electric utility provider, but as a local business that helps bring pride and prosperity to our community.

We love living on co-op lines. We hope you feel the same way, too. ■



Above, the co-op's annual meeting gives members the opportunity to take care of business and is a day of family fun. Lilee Swager enjoyed facepainting at this year's event.

At left, Mike Henderson emphasizes electrical hazards using Safety City during Northview High School's Fresh From Florida day. EREC presents safety demonstrations to help educate students about electrical dangers.



Each year, EREC sends a group of high school juniors to Tallahassee and a few to Washington, D.C., for the Rural Electric Youth Tour to learn more about state and national government and rural electric cooperatives. It is an investment in the future of our community.



The Terrace at Ivey Acres, an assisted living facility, operates a much-needed service for elderly residents of the community. It also boosts the local economy by providing jobs. EREC's Revolving Loan Fund, established by USDA's REDLG program, helped fund construction of the facility.

Keep It Safe

Be Careful Working Outdoors

Many of us work outdoors in late summer and early fall before the weather turns cooler. Outdoor chores require caution, especially around electricity.

Metal ladders making contact with overhead power lines and faulty extension cords are common sources of injury.

The U.S. Consumer Product Safety Commission offers the following tips:

Ladders

- Use fiberglass or wooden ladders when working around overhead wires or other electrical sources. Metal conducts electricity and can kill anyone touching the ladder if it comes into contact with electricity.

- If you must use a metal ladder, carefully check the location of all overhead power lines to avoid contacting the wire or touching the ladder to something that makes contact with the electrical source, such as a tree branch.

- Lower the ladder before carrying or moving it.

- Never work on a windy day. A gust of wind can shift the ladder into a power line.

- When placing a ladder on the ground, make sure the distance to the nearest overhead power line is at least twice the length of the ladder.

- Place the ladder on solid level ground to prevent sliding.

Extension Cords and Power Tools

- Check power tools and electrical cords to make sure they are in good condition. Use only power tools outside that



Follow safety rules when using a ladder near power lines. Your life may depend on it.

Photo by Mike Teegarden

are designed for outdoor use.

- Use extension cords designed for outdoor use. They are thicker, more durable and have features to prevent moisture damage.

- Use three-wire extension cords with three-pronged plugs.

- Check the amperage rating of the

extension cord to make sure it is adequate to meet the power demand of the tool.

- Do not plug one extension cord into another. Use the proper length for the job.

- Unplug extension cords when you are finished. Never leave an open extension cord plugged into an outlet. ■

A Word About Water

Sixteen Ways to Conserve in the Home

Water conservation has become an essential practice in all regions, even in areas where water seems abundant.

In addition to saving money on your utility bill, water conservation helps prevent water pollution in nearby lakes, rivers and local watersheds.

To maximize water conservation in your home:

- Check faucets and pipes for leaks.

A small drip from a worn faucet washer can waste 20 gallons of water a day. Larger leaks can waste hundreds of gallons.

- Don't use the toilet as an ashtray or wastebasket. Every time you flush a cigarette butt, facial tissue or other small bit of trash, 5 to 7 gallons of water is wasted.

- Check your toilets for leaks. Put a little food coloring in your tank. If the color appears in the bowl within 30 minutes without flushing, you have a leak that should be repaired immediately. Most replacement parts are inexpensive and easy to install.

- Use your water meter to check for water leaks. Read the house water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.

- Install water-saving showerheads and low-flow faucet aerators. Low-flow showerheads or restrictors are easy for homeowners to install. Long, hot showers use 5 to 10 gallons every unneeded minute. Limit showers to the time it takes to soap up, wash and rinse off. Low-flow means it uses less than 2.5 gallons a minute.

- To cut down on water waste, buy an inexpensive tank bank or float booster or put an inch or two of sand or pebbles inside two plastic bottles to weigh them down. Fill the bottles with water, screw the lids on and put them in your tank, away from the operating mechanisms. This can save 10 or more gallons of water a day. Be sure at least 3 gallons of water remain in the tank so it will flush properly.



Install a low-flow showerhead for significant water savings.

- Insulate your water pipes with pre-slit foam. It is easy and inexpensive. You will get hot water faster and avoid wasting water while it heats up.

- Take shorter showers. Turn off the shower after soaping up, then turn it back on to rinse. A four-minute shower uses 20 to 40 gallons.

- Turn off the water after you wet your toothbrush and fill a glass for mouth rinsing.

- Rinse your razor in warm water in the sink rather than running the water.

- Run full loads in your dishwasher and clothes washer. Most dishwasher soap manufacturers recommend not pre-rinsing dishes, which is a big water savings. With clothes washers, avoid the permanent press cycle, which uses an extra 5 gallons for an extra rinse. For partial loads, adjust water levels to match the size of the load.

- Replace old clothes washers. New Energy Star-rated washers use 35 to 50 percent less water and 50 percent less energy per load. Consider buying a water-saving front-load machine.

- Minimize use of in-sink garbage disposals. They require lots of water to operate properly, and add to the volume of solids in a septic tank, which can lead to maintenance problems. Start a compost pile to dispose of food waste.



Get the most out of your hot water use by only washing full loads.

- When washing dishes by hand, do not run the water for rinsing. If you have a single-basin sink, gather washed dishes in a dish rack and rinse them with a spray device or a pan of hot water. Dual-swivel aerators are available to make this easier. If you have a double-basin sink, fill one with soapy water and one with rinse water.

- Do not let the faucet run while you clean vegetables. Rinse them in a stoppered sink or a pan of clean water. Use a dual-setting aerator.

- Store drinking water in the refrigerator in safe drinking bottles. Running tap water to cool it off for drinking is wasteful. If you are filling water bottles to take on a hike, consider buying a LifeStraw personal water filter, which enables you to drink water safely from rivers, lakes or any available body of water. ■

Use Energy Wisely

Keep Your Refrigerator Humming



For maximum energy efficiency, keep your refrigerator and freezer well stocked.

Photo courtesy of General Electric

Look for ways to maximize its energy efficiency

The refrigerator is one of the home's biggest energy hogs. You can help it run more efficiently by:

- **Keeping it level.** A fridge on an uneven floor can lean forward just enough to prevent the door gasket from sealing tightly.
- **Checking gaskets.** Even on a level floor, a refrigerator's door gasket can wear out over time. If your door isn't closing tightly, replace the gasket.
- **Filling it up.** A full refrigerator and freezer work more efficiently than a half-empty one. If you don't have enough food and beverages in the refrigerator, fill it with jugs of water until about two-thirds of the empty space is taken. The same goes for the freezer. Pack bags full of ice and scatter them around the freezer so it is at least three-quarters full.
- **Cooling food before refrigerating it.** Putting hot food into a refrigerator or freezer forces the unit to adjust its temperature to compensate for the heat.
- **Covering food before storing it in the fridge.** Uncovered food and liquids release moisture and can force the compressor to work harder.
- **Giving it some breathing room.** For proper ventilation, a refrigerator needs clearance between its top and the cabinets above it and between its sides and the walls. Likewise, don't use the top of a refrigerator for storage. Cartons and other items can restrict airflow.
- **Moving the unit out of the sunlight and away from the oven.** The refrigerator has to work harder to keep everything cool when the outside of it is exposed to heat.
- **Cleaning it.** Regularly wipe dust, dirt and cobwebs from the top of the fridge and from the coils behind it. ■

Need a New Fridge? Upgrade to an Energy Star Model to Increase Savings

Got an old, energy-wasting refrigerator? Replace it with a new Energy Star-certified model. Not only will you enjoy a state-of-the-art fridge, according to the Energy Star website, you can save more than \$270 during the next five years and do something good for the environment.

Thanks to recent improvements in insulation and compressors, today's refrigerators use much less energy than older models. With an Energy Star-certified refrigerator, you can maximize your energy and dollar savings without sacrificing the features you want. When shopping for a new fridge:

- ▶ Look for the Energy Star label to ensure it is energy efficient.
- ▶ Check the yellow EnergyGuide label to determine the model's energy use, compare it to similar models and estimate annual operating costs.

- ▶ Buy a refrigerator with a top-mounted freezer. They use 10% to 25% less energy than bottom-mount or side-by-side models.

- ▶ Buy an appropriately sized refrigerator. Generally, the larger the fridge, the greater the energy use. The most energy-efficient models are 16 to 20 cubic feet.
- ▶ Skip the automatic ice-maker and through-the-door dispenser. They increase energy use 14% to 20% and raise the price \$75 to \$250.

Don't forget to recycle your old refrigerator. If you have a second refrigerator in your basement or garage, you should recycle that one, too. Refrigerators more than 10 years old could be costing you \$110 a year.



Rule Aims to Reduce Emissions

Trump Administration focuses on possible energy-efficiency improvements in new plan to cut carbon produced at power plants

By Dan Riedinger

The Trump administration recently issued a rule to reduce power plant carbon emissions. Known as the Affordable Clean Energy rule, the new regulation will require power plants to work with state regulators to assess steps that can be taken to cut emissions through energy-efficiency improvements.

America's electric cooperatives welcome the new rule, noting it is far preferable to an earlier, costlier attempt to regulate carbon emissions that ultimately was put on hold by the U.S. Supreme Court.

"The ACE rule represents a more flexible path forward that will minimize the cost to consumers and preserve the reliability of the electric grid as electric co-ops work to promote a healthy environment and vibrant rural communities," said Jim Matheson, CEO of the National Rural Electric Cooperative Association.

"Electric cooperatives have invested billions of dollars in diverse energy sources and emission-reduction technology to meet the electricity needs of their local communities while protecting



the environment," Matheson said. "The ACE rule gives electric cooperatives the ability to adopt evolving technology and respond to market and consumer demands while continuing to serve as engines of economic development for one in eight Americans."

Matheson stressed the ACE rule will allow electric co-ops to ensure affordable and reliable power remains available throughout communities like those served by Glades Electric Cooperative in Florida's Heartland.

Power plant emissions have steadily

declined due to market forces and evolving consumer expectations.

Nearly 60% of the electricity supplied by electric co-ops comes from low- or no-emission energy sources. Electric cooperatives have reduced carbon emissions 9% since 2009, even while increasing electric generation by more than 12 million megawatt-hours. Co-ops are also investing in research to develop proven carbon capture, storage and reuse technologies that can extend the operation of coal-fueled power plants.

Electric cooperatives work hard to



Seminole Electric Cooperative—Glades Electric’s wholesale power supplier—has invested more than \$530 million in state-of-the-art environmental control technology at Seminole Generating Station in Putnam County, Florida, showcasing some of the most efficient and environmentally sustainable generation practices in the country.

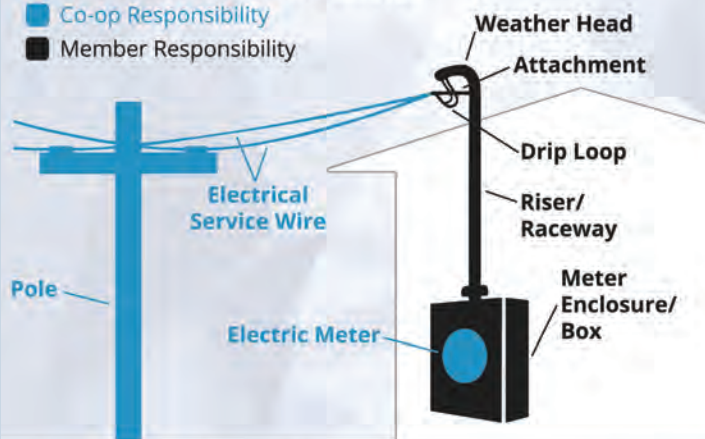
minimize the cost of new regulations to reduce the impact on electric rates for their consumer-members. In this instance, the ACE rule is consistent with the co-op mission to provide consumer-members with safe, reliable and affordable power while continuing to reduce emissions and meet environmental goals. ■

Who is responsible for fixing what?

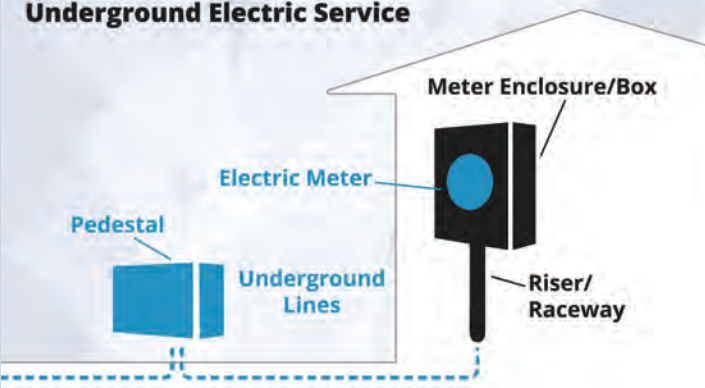
If your electrical components are damaged, you may be responsible for repairs. Identify your type of service connection below to learn what your responsibilities are. You may need to complete repairs before power can be restored to your home.

Above Ground Electric Service

- Co-op Responsibility
- Member Responsibility



Underground Electric Service



Maintaining Reliable Service Together

Glades Electric Cooperative works year-round to maintain a strong, reliable electrical system. To ensure safe delivery of power to your home, it is important members understand where the co-op’s maintenance responsibilities end and the member’s begins.

The co-op is responsible for servicing and maintaining all facilities up to the point of delivery, which is normally the weatherhead. Any damage to these lines or equipment up to the point of delivery, including the meter, will be corrected as quickly as possible by Glades Electric at the cooperative’s expense.

All wiring and equipment after the point of delivery belongs to the member, and maintenance is your responsibility. This includes the meter box, service riser/raceway, attachment hardware, weatherhead and all associated vegetation management. Members should contact an independent electrician to make repairs or improvements.

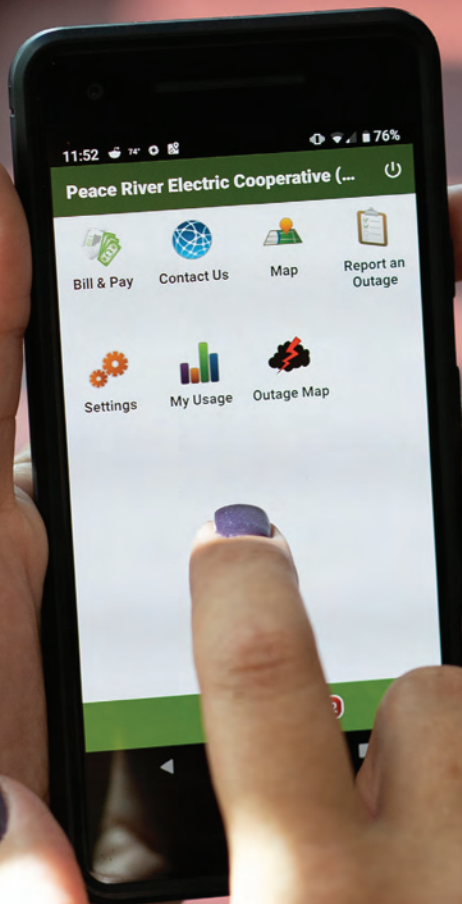
If you inadvertently damage or notice damage has occurred to GEC’s electric facilities, it is the member’s responsibility to give us prompt notice. Call 863-946-6200 if you see a power line down or damaged equipment.

FLORIDA

Peace River Electric Cooperative

Currents

SEPTEMBER 2019



SmartHub

Mobile application access allows you to be in control of your PRECO account while on the go. See details on page 4.