February 2020 Share Package
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When People Speak, Congress Still Listens

Washington legislators recognize the importance of co-op tax-exempt status

Politics have become so polarized it can be tough for Democrats and Republicans to come together to tackle big challenges. But that's exactly what happened recently in Washington, D.C., thanks to dedicated lawmakers, including five from Washington.

Reps. Susan DelBene (D-2), Dan Newhouse (R-4), Cathy McMorris Rodgers (R-5), Derek Kilmer (D-6) and Denny Heck (D-10) listened to thousands of electric cooperative stakeholders as they fought tirelessly to add important legislation to the 2020 federal government spending bill. The bill was signed into law in December, and included a provision known as the Revitalizing Underdeveloped Rural Areas and Lands—or RURAL Act—which solved an existential issue for electric co-ops and America's rural communities.

Electric co-ops work to secure government grants to help pay for numerous activities that benefit the communities they serve. These include grants for storm recovery, broadband deployment, renewable energy and economic development.

To maintain their tax-exempt status, co-ops can receive no more than 15% of their income from nonmember sources. Historically, government grants to co-ops were counted as contributions to capital. But due to a glitch in the 2017 tax law, government grants were reclassified as income, pushing some co-ops beyond the 15% threshold and jeopardizing their tax-exempt status.

The tax problem left co-ops with an unfair choice: Do they take the money they need to turn the lights back on for their members as quickly as possible after a disaster? Do they accept the broadband grants to help close the digital divide between rural and urban America? Or do they turn down those grants so they don't have to spend their members' money paying taxes rather than improving service?

Thanks to Congress, electric co-ops across Washington don't have to make those trade-offs. This is good news for both co-ops and their members, because some co-ops would have had to raise their electric rates to pay new taxes.

The electric cooperatives in Washington are extremely grateful to the members of the Washington State Congressional Delegation for their support of the RURAL Act. In standing up for Washington's local communities, they proved that Congress still works for the people. Notably, the legislation drew the bipartisan support of more than 300 lawmakers in the House and more than half of the Senate before it was passed. That's a rarity these days.

In today's fast-paced society, pausing to give thanks is done with increasing rarity. That is unfortunate.

Thank you, Reps. DelBene, Newhouse, Rodgers, Kilmer and Heck for looking out for rural communities across Washington. And thank you for working with us to solve this problem. ■

Kent Lopez is general manager of the Washington Rural Electric Cooperative Association in Olympia, Washington.

ZOOMTEAM/STOCK.ADOBE.COM

Grow Fruit Trees With Confidence

By Kym Pokorny

People tend to have a love-hate relationship with their fruit trees. The fruit they love; the work they hate.

But times have changed. Research has developed easier methods of dealing with pests and diseases, from resistant trees to low-toxicity products. For years, Steve Renquist, a horticulturist with Oregon State University's Extension Service, has advocated for integrated pest management, an approach using the most effective, least-toxic methods first.

"Everyone wants to minimize spraying," Steve says. "Low input means it's better for the people eating the fruit, better for the environment in the backyard, better for the safety of the pets and family running around out there. It's a pretty easy sell."

Steve recommends home gardeners choose the most disease- and pest-resistant varieties. Extension Service master gardeners can make recommendations, as can nurseries with expertise in fruit trees.

"If you start from that point, you've got a much better chance of having a low-input orchard," Steve says. "You don't have to be constantly spraying for something."

Apples and pears are the two most common fruit trees grown in Oregon because they can be grown throughout most of the state. But people often grow fruit trees that are hard to maintain.

"Everybody has the desire to grow cherries," Steve says, "but after you try to grow them and keep the birds away, you realize you're putting a lot of effort into feeding the birds. And they get a number of diseases, too, which compounds it."

He advises sticking to apples, pears and, if you're in the right area, stone fruits such as peaches, plums and prunes. If you're partial to figs and persimmons, those fruits are almost entirely carefree.

After choosing an appropriate variety, the next step is to be vigilant about monitoring for pest insects with pheromone traps, which are sold at farm stores or online. The tent-shaped traps have bases smeared with a sticky substance. On the trap bottom, place a lure with pheromones that waft a scent to attract certain insects. Starting in late spring, hang the traps in the trees and check each week. If there are more than the target level of insects caught in the trap in one week, spraying with the least toxic spray is recommended. If not, knock off the bugs trapped and start counting again in the new week.

"Scientists make it pretty simple," Steve says. "That's the beauty of the system. They determine the number of insects to look for. It's something hard and fast you can follow. You're applying on the basis of need rather than the basis of prevention."

On top of that, the recommendations for sprays are for low-impact sprays—many of them organic—although even some organic products have risks. For information on specific products, contact your local master gardeners.

Steve stresses that home gardeners need to rotate sprays—three per season is best—to avoid resistance.

Another strategy is to apply low-input dormant oils before trees have budded out, which smother the eggs and larvae of many insects and decrease problems down the line.

Of course, keeping your trees in top shape is key.

"A lot of it is the health of the tree," Steve says, "well-timed sprays, good pruning, good fertilization. You really can have fruit produced with far fewer inputs than people lead you to believe."

For more information, refer to Growing Tree Fruits and Nuts in the Home Garden, https://catalog.extension.oregonstate.edu/ec819; and Training and Pruning Your Home Orchard, https://catalog.extension.oregonstate.edu/pnw400.

Kim Pokorny is a communications specialist for Oregon State University's Extension Service. Before joining EESC, Kym worked for The Oregonian newspaper in various positions.

Keep Pets and Energy Bills Comfortable

We hope these answers are helpful as you work to save energy while caring for your furry friends.

Don't let winter weather and thermostat confusion ruin your winter. Learn to control costs and maintain comfort.

Will a pet door affect your energy bill?

Pet doors are convenient for pet owners and pets, but they can affect energy bills. A poorly made or improperly installed pet door will create unwanted drafts that increase energy bills and reduce the overall comfort level of your home. The wrong type of door also may be pushed open during high winds.

Consider installing a pet door certified by the Alliance to Save Energy, or one that has a double or triple flap. These types of pet doors can reduce energy loss and make life easier for you and your furry friends.

The best solution may be a high-quality electronic door that is activated by a chip on your pet's collar.

It's difficult to undo a pet door installation, so we suggest doing your homework before taking the leap. There may be other strategies that will give you and your pet some of the convenient benefits without the downsides.

How much hot and cold can your pup and tabby handle?

Cats and dogs can handle the cold better than humans. The U.S. Department of Agriculture, which regulates facilities that house cats and dogs, requires facilities to maintain temperatures above 50 F.

Some exceptions are allowed for breeds accustomed to the cold or if some form of insulation is provided for the animals. Your pet's tolerance really depends on their breed and coat thickness.

A report by the Purdue Center for Animal Science says Siberian huskies can tolerate temperatures below freezing, but some short-haired dogs require temperatures of 59 F or warmer. Older animals may require warmer temperatures than younger ones.

During summer, cats and dogs handle the heat in different ways. Cats clearly enjoy warmer temperatures more than dogs, and do a good job reducing their activity level as temperatures climb. But both cats and dogs can get overheated. The USDA says room temperatures in facilities housing dogs or cats should not exceed 85 F for more than four hours at a time.

Is it OK if your pet sleeps in the garage overnight?

USDA rules suggest this should be fine if your garage temperature stays between 50 F and 85 F. Pets might be able to handle a lower temperature if they have a warm, insulated bed.

I do not recommend heating or cooling your garage for your pet. This could lead to extremely high energy bills, which makes sense. An uninsulated, but heated, garage could easily cost more to heat than a home. A better solution is a heated pet house, which you can buy from multiple retailers. If you're willing to spend a little more, you can find climate-controlled pet houses that include heating and cooling options.

You can also buy heated beds for cats and dogs. Some beds use as little as 4 watts of electricity, so they won't drain your energy bill. ■

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more energy tips, go to www.collaborativeefficiency.com/energytips.

Natural Light Saves Electricity, Improves Vision

Question: Are rectangular or tubular skylights better for more natural light and energy savings?

Answer: Although the amount of electricity used for lighting in a house is only a fraction of what is used for heating, cooling and water heating, it still constitutes a significant annual cost. Using more natural light instead of lightbulbs is not a difficult task.

If saving electricity is your primary concern, replacing all your lightbulbs with LEDs is a less expensive option than installing either a typical or tubular skylight. Although not as natural as true sunlight, higher temperature bulbs—rated at 4000+ degrees Kelvin—produce a more natural, whiter light. Bulbs with a high color rendition index make colors looks more realistic.

Most people's vision is better under natural lighting—even at a somewhat lower brightness level—than under typical artificial lighting. I can read a magazine easier by a window even on a cloudy day. Some businesses now use special lights that closely simulate natural light. They can reduce bulb wattages by more than 15% for big savings, and the workers cannot tell the light is dimmer.

For more information or to ask a question about energy savings, go to www.dulley.com. (c) 2020 James Dulley

A tubular skylight is generally a more efficient and less expensive choice than a traditional rectangular skylight. A traditional skylight provides more lighting and a view of the sky, but it creates a large hole in the insulation envelope of your roof and loses energy.

I installed a tubular skylight in my garage. It provides adequate light for most activities during the daytime. When there is a full moon, it produces enough light for me to walk to my car in the garage without switching on the light.

Tubular skylights are available in several diameters, depending on how much light you need and the space available. As a reference, a 10-inch-diameter model produces as much light as three 100-watt incandescent lightbulbs. A 14-inch model is equivalent to using five 100-watt bulbs.

If you are still using incandescent bulbs, the annual electricity savings from installing a large tubular skylight is about $90. If you typically use compact fluorescent bulbs or LEDs, the annual savings is about $20. This might not sound like a lot, but the tubular skylight should last for many years.

A tubular skylight is installed on a shingle roof. Notice how the shingles fit over the flashing to eliminate leaks.
PHOTO BY SOLATUBE

A tubular skylight requires no maintenance other than wiping off the glass or globe in the home. The dome on the roof should stay clean from the rain. It is not difficult to install one yourself, especially if you have an asphalt shingle roof.

Tubular skylights use a sheet metal tube that extends from above the roof to the ceiling below. The interior of the sheet metal has a reflective coating, so little brightness is lost as the sunlight bounces back and forth on its way down. A clear dome seals the top of the tube above the roof and a flat diffuser snaps over the bottom in the ceiling.

To control the brightness, optional dimmer flappers are available to reduce light intensity. These can be operated by an electric motor or a solar panel with a remote control. Another nice feature for bathrooms is a model that also works as an exhaust fan.

Most natural light comes in through windows. If you have relatively efficient windows, open the curtains or use just sheers during the daytime to allow light in. If you have old single-pane windows, use insulating shades. Opening them loses more energy than you save on lighting. Prune back shrubs that have grown up and block the window.

Placing decorative mirrors opposite windows can be effective. One method uses mirrors on opposite walls. This reflects light, and the repeating images in the mirrors add a sense of depth to the room. For a window near a corner, place the mirror on the adjacent wall close to the window. It will reflect the light out at 90 degrees from the window to brighten the entire room. ■

A Designer Trend

New technology and personal preferences give you more control over your electricity.

By Paul Wesslund

The thermostat on your wall marks a new era in electricity. Whether it's a dial-style older than you or a digital model installed last month, it's become more than just a way to set the temperature in your home.

That familiar gadget is now a gateway to a world where consumers have more say over their electric service.

You might call it designer electricity.

New technology, new regulations and new ways of thinking are reshaping the utility industry. Consumers can regulate the temperature in their home more precisely. They can even generate their own electricity with rooftop solar panels and sell the excess power back to their utility.

This new world started taking shape in the 1990s, says Andrew Cotter, a program manager for the Business and Technology Strategies Group of the National Rural Electric Cooperative Association.

Cutting costs and raising reliability for sensitive electronic equipment was top of mind. Companies were willing to pay extra for electric service that wouldn't blink off for even a fraction of a second. Other companies didn't need such high reliability, and looked for ways to pay less in return for occasional power interruptions.

"This is a trend that's been going on for a long time, but it's just starting in homes," Cotter says, noting that thermostats "can be the entry point for a lot of people to take advantage of smart-home technology and be more energy efficient."

A programmable thermostat can be set to avoid heating and cooling when you're not home, or set separate temperatures for rooms you don't use often.

That's just the beginning of ways consumers are making more of their own energy decisions. Highly efficient LED bulbs can be controlled from your smartphone. Washers and dryers sense how much water and heat need to be used to clean and dry your clothes.

All that efficiency makes a difference. Americans' electricity use decreased by about 2% in the past three years, according to the U.S. Department of Energy's Energy Information Administration. That trend is expected to continue for at least the next couple of years.

It Started With Batteries

While energy efficiency saves money, the story of battery storage shows the bigger picture of how consumers are putting utility decision-making into their own hands.

The story began with homeowners using portable, motorized generators to power refrigerators and other crucial appliances during extended outages. Driven by the demand for smaller and stronger chargers for smartphones and other electronics, battery technology improved.

Battery companies thought their improved product could grab part of the

Saving Big? Timing Is Everything

DID YOU KNOW that *when* you use electricity often matters as much as *how much* electricity you consume?

It's no surprise electricity use fluctuates throughout the day.

Electric utilities must be able to provide enough electricity to meet the energy demands of their consumers during times of highest energy use—"on-peak hours"—typically in the early morning, when people start their day, and evening hours, when they return home after work.

To reduce peak energy demand and save money, many electric utilities have created a time-of-use rate program to encourage electricity use during off-peak hours, when energy is less expensive to provide. Using less on-peak power means lower costs for your utility and, ultimately, lower rates for consumers.

That involves performing some of your daily chores such as running the dishwasher or doing laundry during off-peak hours; plugging electronics, TVs and power tools into a power strip and turning it off during peak hours; adjusting the settings on your programmable thermostat so your heating/cooling system syncs up with off-peak rate periods; and using automatic timers to run hot tubs, pool pumps, water heaters and other appliances.

Similar to saving money by attending a matinee, you can keep more money in your wallet simply by using electricity during an off-peak period.

portable generator market. Tesla, the high-end electric car company, soon announced a battery designed to look attractive enough to hang on your wall and provide backup power. Other companies followed.

In addition to promising relief from power outages, Tesla promoted its battery to the growing renewable energy market.

Homeowners installing solar panels on their roofs ran into a problem: They generated a lot of electricity in the middle of a sunny day, when no one was home to use it, and none at night, when they were home wanting to use electricity.

Batteries can store the sunlight.

Utilities Navigate the New World

Offering more options for consumers complicates business for electric utilities since their model didn't plan for consumers storing electricity or selling electricity back to the utility.

"Utilities are navigating a lot of difficult decisions," Cotter says. "They're not selling as many kilowatt-hours. They're selling technology that reduces sales, so they're working to come up with a sustainable business model. There are no easy answers."

Cotter says the member-owned, not-for-profit business structure is an advantage in a more consumer-centric industry. Co-ops are in a unique position, with long power lines that have to cover a much larger area, he says, noting that has prompted pilot programs to test utility-scale batteries.

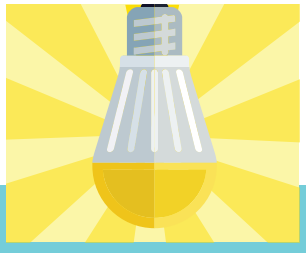
"It might be really expensive to hook the last person up to the end of three or four miles of line," Cotter says. "Co-ops might be in a more natural position to adopt batteries for use in those remote locations."

A network of nearly 1,000 electric co-ops shares results from small pilot programs across the country. Co-ops are experimenting with batteries, incorporating home renewable energy projects into the electric grid and making the most effective use of energy-efficient technologies.

"Co-ops are developing a more robust understanding of how consumers want to use electricity," Cotter says. "They are all working together so one co-op doesn't have to do all the testing. There are no top-down solutions."

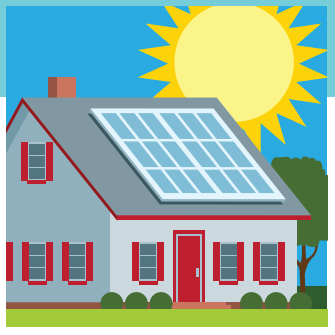
THE POWER TO SAVE

Consumers have more options in how they use electricity, which means big changes for electric utilities. Here are a few of the major trends and developments:



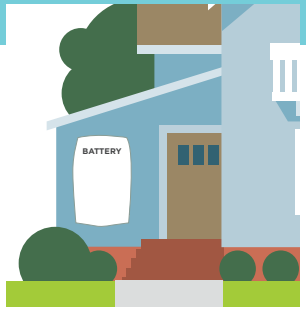
Energy Efficiency

Efficient lightbulbs and other appliances have reduced electricity sales, even as the population increases, the economy improves and we use more electronic devices.



Renewable Energy

Rooftop solar panel use is increasing enough that some utilities notice a decrease in sales during the sunniest part of the day. Homeowners with solar panels are selling excess electricity back to the utility.



Bigger, Better Batteries

Spurred by research into stronger batteries for electric cars and smartphones, you can now buy a battery powerful and pretty enough to hang on your wall as a backup during power outages. Note: That cool gizmo can cost up to $10,000!

But Where Is the Price Point?

While the march toward more choices in electric service might seem inevitable, Cotter sees it as an uphill battle because of one key question: Is it worth it?

"Do you want to spend $10,000 for a photovoltaic system on your roof and another $10,000 for a battery to avoid 45 minutes a year of power outage?" he asks.

That's where your old-fashioned thermostat could put you on the cutting edge of the trend toward more customer choice. You can decide you like things the way they are.

"People are generally happy with their electric service," Cotter says.

Some hobbyists might want to design ways to manage their electricity, but a lot of others don't want to pay money for hardware only to save a few dollars a year, he notes.

In an era of more energy options, vendors will be promoting batteries, solar panels and other gizmos. Cotter advises consumers to check with their utility before making major power-use decisions.

"Talk to your co-op first because they're the local energy expert," he says. "Vendors have a goal of selling products. The co-op—as a not-for-profit, member-owned utility—has a different perspective that will be more in your interest." ■

The Evolving Electric Power Grid

By Jonathan Susser

When we turn on a light or plug in a phone charger, we receive electricity from a complex web-like network of equipment. Power plants, power lines, substations and transformers all communicate and work in tandem to deliver the right amount of energy when and where we need it. Together, these wires, switches and related equipment are known as the electric power grid, or just "the grid."

As the grid was being built in the late 19th and early 20th centuries, electric utilities operated in isolation. The power plants that popped up from coast to coast consisted of large, centrally located generators that delivered electricity in one direction to the communities that needed it.

In time, the grid became more interconnected and efficient. It has provided safe, reliable and affordable electric service for more than a century. Much of the time we don't even notice it is there.

But the grid's equipment and infrastructure are aging, and our needs are changing.

With a growing population, advancements in technology and many new electronic devices, we consume substantially more electricity than we used to. Electricity use today is more than 16 times greater than it was in the 1950s—and we expect more information and feedback about our energy consumption.

We also see new sustainability initiatives and a rise in renewable, more variable, energy sources located closer to their points of use. We also have to combat the threat of mounting physical and cyberattacks, and manage and respond to changing weather patterns.

These developments are pushing the grid to do more than it was designed for and have forced it to evolve and modernize.

Getting Smarter

Similar to phones, thermostats and watches, the grid is getting smarter. Advanced instrumentation and technologies such as relays, sensors and switches have become more affordable and are being added to our grid's existing network, enhancing communication, adaptability and efficiency. The result is a bidirectional system that supports energy consumers, communities and utilities, as well as environmental and economic efforts.

Benefits of a smart grid include:

- Increased reliability and resiliency.
- Faster restoration after disruptions.
- More information and energy management for consumers.
- Easier integration of renewable energy.
- Enhanced security and protection.
- New business opportunities supporting the smart grid supply chain.

The rise of the smart grid has coincided with and been supported by emerging technologies such as battery storage, renewable energy, smart meters and advanced metering infrastructure, self-optimizing networks and electric transportation. Although these technologies are not new—electric vehicles have been around for more than a century—their growth today is especially impactful because they are able to enhance a grid that is now capable of effectively harnessing them.

Microgrids

The arrival of these emerging technologies on the grid also has supported development of custom-designed microgrids: independent electric systems. The miniature grids use local energy resources such as solar arrays and battery storage to control equipment and help power a defined area, such as a building, campus or community.

These systems are becoming more popular, and for good reason: They can increase grid reliability and resiliency; ease periods of peak demand, when consumer demand for electricity is high; act as a testing ground for new technologies; and provide an alternative source of generation and storage to reduce power supply costs.

North Carolina launched a microgrid in electric cooperative territory in 2017 with a diesel generator, Tesla batteries, a rooftop solar array on the diesel plant, thermostats and water heaters that can be coordinated by the cooperative and a controller that pieces it all together.

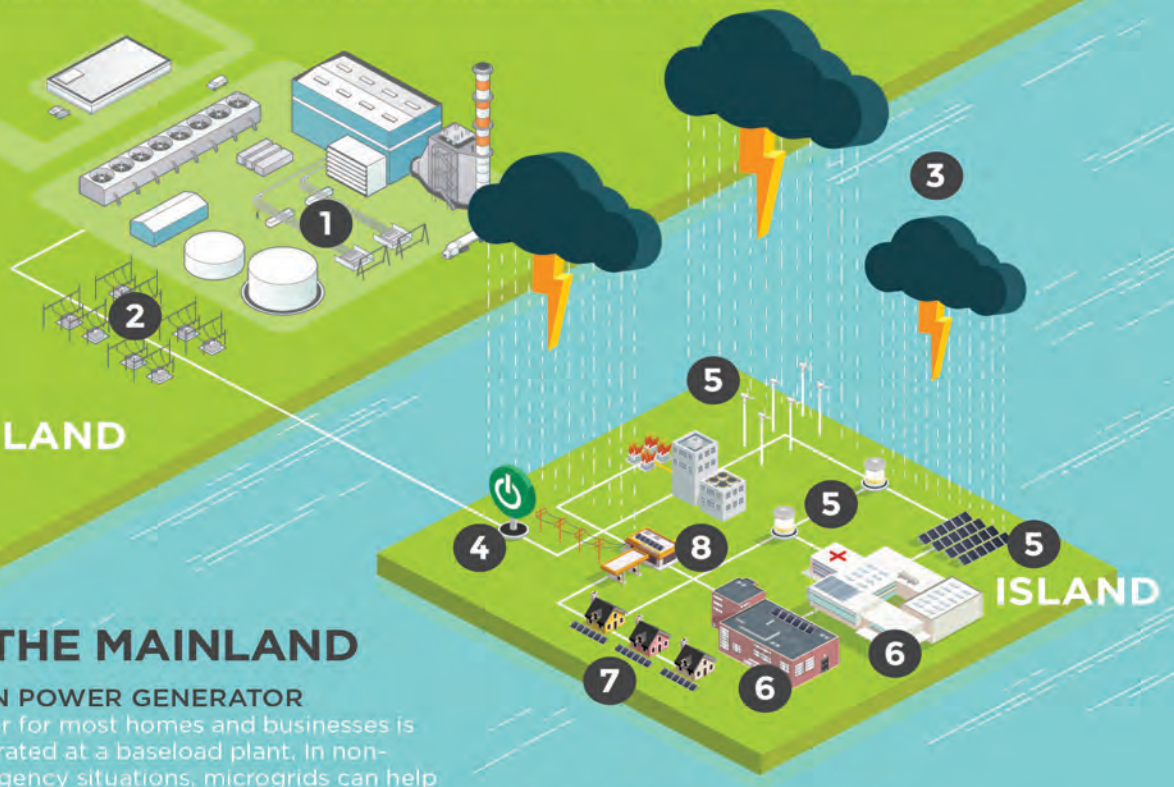
The combination of supply-side and demand-side components provides flexibility, and can improve performance and speed recovery during a loss of power.

Alaska's cooperatives have deployed dozens of microgrids—many featuring networks of wind turbines—to ensure remote communities have reliable power under the harshest weather conditions. Some communities are so rural a microgrid is the only way to serve them.

It can be easy to take for granted a ready supply of electricity, but the grid is truly a marvel of engineering. It has been able to evolve with the changing needs of society. The transition to a smarter grid with emerging technologies will allow for even more reliable, safe and affordable service. ■

How Microgrids Work

The electricity grid is like the mainland, where energy is generated at a central power plant and sent to where it's needed. A microgrid is like an island — it can function on its own, power a concentrated area, and connect to the mainland. Microgrids can keep power on during blackouts, storms and other disasters.



ON THE MAINLAND

1 MAIN POWER GENERATOR
Power for most homes and businesses is generated at a baseload plant. In non-emergency situations, microgrids can help reduce peak demand at the baseload plants.

2 SUBSTATION
A substation is the intermediary between the power plant and the consumer. If the substation fails or has problems, consumers lose power or experience brownouts.

ON THE ISLAND

3 STORMS
Storms and other disasters can cause large-scale outages on the main grid. Microgrids are being built today to increase resilience and keep the power on during emergencies.

4 MAIN COUPLING SWITCH
The microgrid and main grid connect. The coupling switch functions as the main switch point in case of grid outage. On an average day, the coupling switch ensures that voltage levels remain equal between the regular grid and the microgrid.

5 INDEPENDENT GENERATION
The microgrid system can generate electricity from a single solar or wind installation, or a combination of traditional and alternative power generation methods.

6 CRITICAL SERVICES
A microgrid is usually built to power critical community resources like hospitals, police and fire departments, and schools so that they can continue to function in emergency situations.

7 HOMES
Individual homes are usually low on the microgrid priority list, but can be linked to the microgrid if they have power generating capabilities, like rooftop solar panels.

8 BUSINESSES
A key commercial property may sometimes be included in the microgrid, depending on its generating power and the needs of the community.

SOURCE: American Public Power Association

Hello, This Is A Scammer Speaking

ADOBE STOCK PHOTO BY DAISY DAISY

Scammers may try to get you to give them personal information by impersonating your power provider. Here's how you can stay safe.

By Juan D. Alfonso

It was a typical weekday afternoon in Moore Haven, Florida, when Jennifer Koukos' phone rang. On the other end, she heard a man's voice calmly asking for whoever was in charge of the electric bill.

Unfortunately, the gentleman said, he had some bad news. Her electricity rates were going to increase.

Jennifer had some bad news for him, too. He called the wrong person. She knew better.

"I knew it was a scam the moment he said that," says Jennifer, chief communications officer for Glades Electric Cooperative. "We were eligible for tax credits, and we'd actually reduced rates less than two months ago."

Jennifer was the target of a phone scam that has become all too common in recent years. This type of identity theft scam starts when the perpetrator asks for personal information, such as the names of residents, address, Social Security numbers or account passwords. Luckily, as an electric utility employee, Jennifer already knew the information needed to combat it.

"The first red flag was when he asked who was in charge of the bill, instead of asking for me by name," Jennifer says. "If your utility company is calling you, they have your name and address. This isn't information we would ask for over the phone. If we are billing you, we already know who you are."

These scams are becoming more frequent, according to Elecia Copenhaver, marketing and communications coordinator for Benton Rural Electric Association, based in Prosser, Washington.

"The most typical scam we see is the kind where they call you and say, 'You owe X amount on your bill. If you don't pay it immediately, we will shut off your electricity,'" Elecia says.

Scammers attempting the "immediate payment" con will often ask for payment in the form of wire transfers, prepaid debit cards, gift cards or other untraceable forms of currency. While the average consumer may normally be savvy enough to see through the ruse, these criminals use fear tactics to prevent utility members from thinking the situation through.

"Some people will actually come to your door impersonating an employee," Elecia says. "Obviously, we don't go door-to-door to collect payments, but some of these scammers will go as far as renting a service truck with tools saying they are prepared to cut your power if they don't receive payment immediately. That kind of in-your-face pressure can be scary and get the better of a lot of people."

If a real utility worker comes to your door or says anything about your meter, the worker already will know your name.

"Never give out any personal information to a stranger at your door or over the phone," Elecia says. "If you are ever hesitant or feel like they may not be who they say they are, just shut the door or hang up the phone and call your utility to verify who they are."

If there was an actual problem with a payment, letters from the utility would have arrived in the mail long before the threat of power being disconnected. Your utility would never surprise you with that information at your doorstep.

Despite utilities' best efforts, a portion of the community is particularly susceptible to these types of scams.

"Our senior members tend to fall for it a little more often than the rest," says Courtney Cobb, communications coordinator for Central Electric Co-op, based in Redmond, Oregon. "They tend to be more trusting, and these scammers go out of their way to target them and take advantage. If you have older family members, check in on them from time to time and remind them that scammers are out there. We need to take a more proactive, rather than a reactive, approach to protecting our seniors from these people."

"Renewable energy scams are starting to become popular," Courtney adds. "These people will call or come to your door asking for money to invest in solar or wind. Sometimes it's an identity theft scam where they ask you for your information. Some of it is asking for prepaid debit cards to be mailed to them. It is all the same scam. They just change the story."

According to the utility communicators, the best way to combat energy scammers is to report incidents to your utility immediately. Hanging up and calling your utility directly is guaranteed to keep you safe. If you think you may have encountered a scammer, check your utility's Twitter, Facebook or other social media channels.

"When we get an alert from a member we put it up on Facebook immediately," Jennifer says. "Check your utility's social media and remember to never give personal info to someone calling you out of the blue—especially if they are threatening you." ■

CPI 2020 System Improvements

Continuing work ensures a reliable, safe and efficient system

In 2019, CPI crews installed more than 351 distribution and transmission poles, more than 126,000 feet of overhead conductor, 130,000 feet of underground cable and one new substation transformer. They also rebuilt another. Due to increased housing and business growth, crews also installed more than 350 transformers throughout CPI's service area. The best part is, all projects were completed safely.

These system improvements increase the reliability and capability of the distribution system. This reduces the number of outages members may experience and the overtime costs associated with corresponding repairs. These proactive upgrades keep our rates low, and help prevent the possibility of a wildfire.

Continuing with this proactive approach, here are some of the larger projects happening in CPI's service area in 2020.

Wren-Adair Pole Replacement and Re-conductor
CPI will install 15 new steel poles and larger wire between Corvallis and Adair Village. This project is a portion of the ongoing Corvallis system upgrade, and will be built in conjunction with the proposed development in the surrounding area.

Harrisburg Distribution Re-conductor
Phase three of this re-conductor project consists of moving an existing line from a difficult-to-access area to a county right-of-way next to the road, plus installing larger poles and wire. The existing line is at capacity during peak-use times. The project allows for continued load growth in the Harrisburg area.

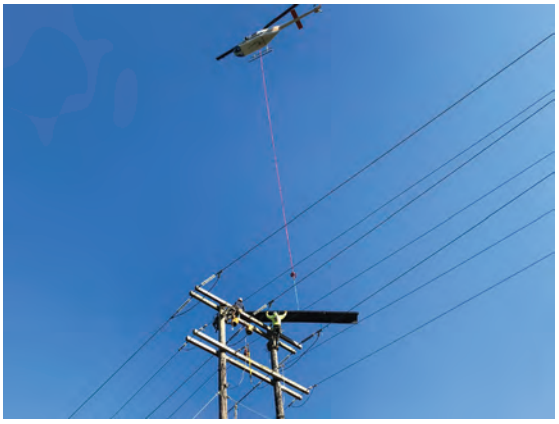
Alsea Area Overhead-to-Underground Conversion
CPI will again partner with Pioneer Connect to install 8,000 feet of underground distribution lines along with fiber optic cable. This is the second part of a two-phase project started last year. When completed, the new underground line will allow increased load carrying capacity to feed Alsea Valley and Waldport from our Philomath Substation. It will also help reduce the possibility of a local wildfire. Joint efforts with Pioneer Connect have proven to be cost effective and an efficient use of both organization's resources.

North Corvallis System Resiliency and Re-conductor
This project will involve installing new high-voltage transmission lines between substations along with re-conductoring existing lines with larger wire. This project will improve resilience in the north Corvallis area.

Underground Cable Injection
Underground cable will be reconditioned using an insulating fluid injection system. This method has proven to be a cost-effective way to prolong the life of underground cable for those with minimal corrosion on neutral wires and an unobstructed path for fluid to flow through. Successful cable injection prolongs the life of underground lines up to 40 years. The Lebanon and Corvallis areas will be targeted this year.

Underground Cable Replacement
Underground cable sections installed during the 1970s need replacement. These sections are prioritized by number of faults, impact to members and difficulty to repair. The focus will be to replace the areas that cannot be refurbished with cable injection. Most of the replacement this year will take place in rural areas scattered across our service area.

These are just a few of the larger projects CPI will be working on in 2020. As you come across our crews working, give them space so they can do their job safely. Thank you for helping us provide safe, reliable and affordable power to our members.



CPI AT A GLANCE

2,100 MILES OF OVERHEAD LINES

925 MILES OF UNDERGROUND LINES

25,604 TOTAL SERVICES

167 NEW LOCATIONS

2019 Energy Conservation Highlights

Energy Star Homes: More than a dozen members bought an Energy Star-certified home, saving themselves an average of $500 a year in energy costs.

Insulation: Members added more than 30,000 square feet of insulation, which is the simplest and most cost-effective way to reduce energy waste.

Heating and Cooling: More than 150 members upgraded to heat pump technology, decreasing their heating/cooling costs by up to 50 percent.

Window Replacement: Members replaced nearly 6,500 square feet of inefficient windows, where up to 22 percent of heat loss typically occurs.

Appliances: Nearly 70 members upgraded to Energy Star clothes washers and dryers, which on average save $700 during their lifetime.

Heat Pump Water Heaters: Almost 200 families opted to save up to 50 percent of their water heating costs by switching out their old water heaters. Water heaters are the second largest power usage in the home.

Lighting: CPI sold more than 5,500 energy-efficient bulbs, which can save you as much as 85 percent of your lighting costs.

Showerheads: More than 100 showerheads were given away, saving the average family 2,900 gallons of hot water a year. If you heat with an electric water heater and haven't yet received one please stop on by one of our offices for your two free shower heads.

Smart Thermostat: More than a dozen members installed a smart thermostat. A smart thermostat can save you around $50 a year in energy costs.

Renewable Energy Systems: 28 new systems were added, bringing the total to 345 net-metered installations. CPI members now have over 2 megawatts of solar capacity installed on their homes, which is enough to power more than 175 homes.

In 2019, hundreds of CPI members participated in energy-efficiency projects. Together, we conserved more than 2.5 million kilowatt-hours. That is enough energy to power nearly 200 homes for an entire year. If you are interested in participating in these programs, visit us at www.cpi.coop or (800) 872-9036.

When the Power Goes Out

Behind-the-scenes technology reduces outage times

By Shelly Yockey

The wind is howling and the rain is falling sideways. A steaming hot pot of coffee brews while the news in the background reports the storm of the season. The power flickers, and suddenly it's dark and silent. The power has gone out.

You check your breakers to find that is not the issue, glance at the neighbor's house and they also appear dark. You turn to social media and post to your friends or community group, "my power just went out. Anyone else?"

People begin to respond, "Yes, mine too," or "No, all good over here." You might even ask CCEC via its Facebook page about the outage. Then what?

Technology has changed the face of the electric power industry, helping reduce outage times and improve reliability. Meters are more sophisticated and we are far more automated than years past. However, Coos-Curry Electric Cooperative still asks members to report outages directly through the after-hours outage line or the CCEC mobile app. Members turning to Facebook or other social media first often limits the reliable information available to your utility, which can make restoring power take longer.

CCEC's outage management system or OMS can predict which device has a fault. The predictions are based on system monitoring tools and reports from you when your home or business lacks power. When a member reports an outage to CCEC directly, their member information and location are logged in OMS. This allows events to be grouped and helps the dispatch center to know where to send linemen to locate the fault.

CCEC experienced multiple weather-related outages from Brookings to Coquille the day before Thanksgiving 2019. This event was one that affected each area differently, so it was important for members to report their locations so CCEC dispatch and operations could assess and prioritize repairs.

When multiple outages of this scale occur, the first step is to identify if a power line on the ground is causing a safety hazard. Problems that affect the public's safety and the greatest number of people are the first priority.

For example, if a problem is identified at a substation level, it could impact every member served from that distribution substation.

What if a tree falls and damages a main distribution line? This could affect a large group of people that receive power through that line.

What if a crew repairs the distribution line and power to the area has been restored, yet you remain out? CCEC may not know your service is affected by a smaller localized problem. This could mean there is more to be repaired, possibly affecting only the tap line feeding power to you, and possibly, your neighbors if they also receive power through the same tap line.

Lastly, if a branch fell and opened a protection device on the pole feeding the service line to your home, you may be one of the last to be restored. This makes it crucial that you report your outage.

What happens when you call CCEC to report an outage?

First, you will be asked a series of questions, such as, "Have you checked your breakers?" "Are your neighbors out?" or "Did you hear or see anything?"

All these responses, along with multiple calls coming in on the same tap or distribution line, are critical to helping us determine the extent of the problem. The representative marks your location, identifying your service in the OMS. The dispatcher is notified and analyzes the results and provides pertinent information to the appropriate engineering and operations staff.

When members report outages through Facebook, the tools not in place to identify a specific location, and often the name of the person reporting isn't listed on the account of record. Social media is not monitored 24/7 like our after-hours call center. We update Facebook on outages affecting large groups of members as much as is feasibly possible. ■

Get the App

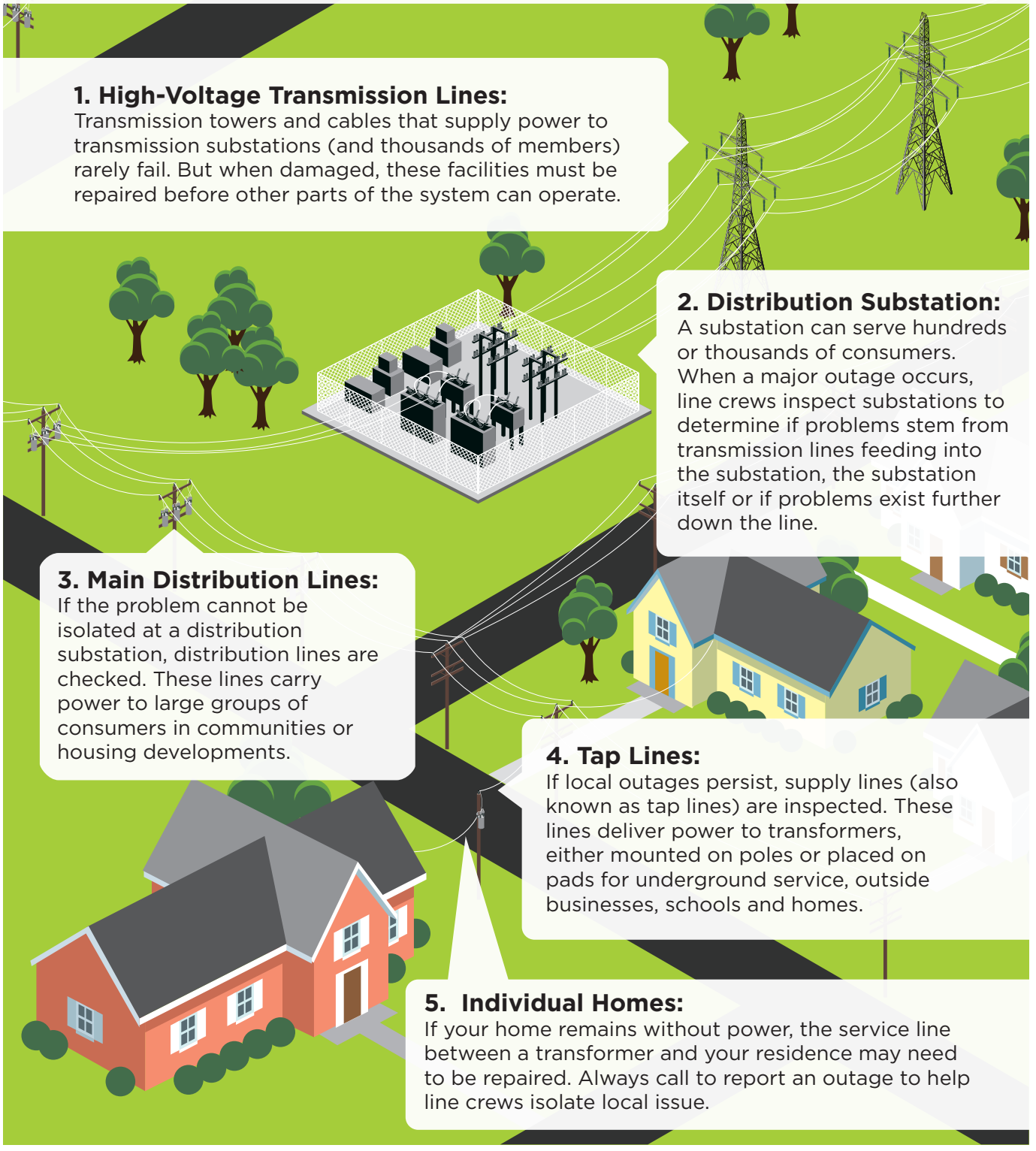
Did you know CCEC offers members the ability to update their account info, pay their bill and view use and payment information on a mobile app? Search CCEC Mobile in your app store. Another added benefit is the ability to report your outage through the app, any time of day, weekend or holiday.

CCEC values our members and works diligently to provide reliable and quality service. As part of our ongoing efforts, we ask members to help us by reporting their power outages to 866-352-9044 or through the CCEC mobile app.

Powering Up After an Outage

When the power goes out, we expect it to be restored within a few hours. But when a major storm or natural disaster causes widespread damage, extended outages may result. Our line crews work long, hard hours to restore service safely to the greatest number of consumers in the shortest time possible. Here's what's going on if you find yourself in the dark:

AMERICA'S ELECTRIC COOPERATIVES



1. High-Voltage Transmission Lines:
Transmission towers and cables that supply power to transmission substations (and thousands of members) rarely fail. But when damaged, these facilities must be repaired before other parts of the system can operate.

2. Distribution Substation:
A substation can serve hundreds or thousands of consumers. When a major outage occurs, line crews inspect substations to determine if problems stem from transmission lines feeding into the substation, the substation itself or if problems exist further down the line.

3. Main Distribution Lines:
If the problem cannot be isolated at a distribution substation, distribution lines are checked. These lines carry power to large groups of consumers in communities or housing developments.

4. Tap Lines:
If local outages persist, supply lines (also known as tap lines) are inspected. These lines deliver power to transformers, either mounted on poles or placed on pads for underground service, outside businesses, schools and homes.

5. Individual Homes:
If your home remains without power, the service line between a transformer and your residence may need to be repaired. Always call to report an outage to help line crews isolate local issue.

Winter Solstices and Mother Nature

Season's greetings! I'm writing this article on Christmas Eve, just shortly after a minor storm passed through the western part of our service territory December 19-20 while it is still fresh on my mind.

Of course, those who were affected by the storm might not think it was a minor storm, but on the grand scale of WOEC storm history, it was a minor event in terms of system damage.

The storm hit the western part of our system, bringing down a large fir tree from outside the right-of-way, taking down power lines and ripping crossarms off the poles. It's a time-consuming process to rebuild lines under the worst possible working conditions, but our linemen do it safely.

What you don't see is the work behind the scene supporting the linemen in the field and the logistics to make sure they have all the materials they need to restore power.

Our operations department effectively coordinates and prioritizes work so power is restored in a systematic and efficient manner. The front office staff processes hundreds of phone calls that come in and are responsible for making sure that information is relayed to the back office and, as time permits, posted on social media.

It's a coordinated effort that takes the entire team to make it all work. The first storm event of the season is always a shakedown cruise and is followed by an after-action review to see if we can improve the process for the next time.

Vernonia experienced about a 30-minute outage the same day after another large tree blew down across the Bonneville Power Administration transmission line feeding our Timber Substation, which feeds the Vernonia and Elsie substations. Power was quickly rerouted through the Chapman Substation to Vernonia, Timber and out to Elsie after the BPA line to the Timber Substation was isolated.

What does all this have to do with the winter solstices? I remember hearing from the linemen who have been around here for more than 30 years that the winter solstice is usually when WOEC experiences the worst weather Mother Nature can throw at us. The fall equinox and spring equinox also have spikes in incidents, but to a lesser extent.

It appears what the linemen have claimed throughout the years has a certain amount of truth to it based on my short tenure here in Northwest Oregon. It's something to think about going forward—see if your experiences match.

For many of us, the winter solstice is a turning point. We're tired of the days getting shorter and look forward to more sunshine. Already I see signs of life in the garden and tree buds are starting to swell. Like many of you, I welcome the return of longer days, warmer temperatures and spending more time outdoors shaking off cabin fever.

Till next time,

Bob Perry
General Manager

On December 19, after all-day rain, we had strong winds blow in by the Necanicum area and around Highway 26. This caused some branches and trees to fall over and cause damage to our system. Our crews stepped up and went out into the nasty weather to restore the power for people without any grumbling. They know this is their job. They were out all night and all the next day working to restore outages. By the end of Friday, they had everybody restored.

Linemen are a special breed. You must like working with "live" electricity at great heights, work outside in all kinds of weather, all hours of the day and night, go without sleep or food for extended periods of time, all with a smile on your face and a good attitude. Linemen miss a lot of family functions because they are working on power outages for other families usually around holiday seasons. These men and women are loyal, dedicated workers and a credit to the utility they work for.

Operations Manager Don Rose

Winter Reminders

Cold Weather Vehicle Safety

Driving in the winter means snow and ice can lead to slower traffic, hazardous road conditions, hot tempers and unforeseen dangers. To help you make it safely through winter, here are some suggestions from your Co-op and the National Safety Council to make sure that you and your vehicle are prepared.

It is recommended you perform an inspection of the following before hitting the road:

- Determine that brakes are in a safe operating condition before operating the vehicle
- If brakes are not working properly, correct this before the vehicle is used
- Perform a 360 degree walk around
- Inspect the windshield for cracks, chips or pitting that could interfere with vision
- Inspect windshield wipers and verify they are in good condition
- Make sure dirt or snow is removed from all vehicle exterior lighting
- Brush or clean off snow, ice or dirt from windows and mirror surfaces to ensure complete vision is achieved
- Check fuel level to be certain the destination can be reached with the remaining fuel level; it is best to have a full tank of gas for any long distance travel
- Check to ensure the license plates, inspection tag and insurance paperwork are current

Weather affects road and driving conditions and can pose serious problems. It is important to check weather forecasts and road conditions.

An emergency situation on the road can arise at any time and you must be prepared.

Along with a tuneup, a full tank of gas, and fresh anti-freeze, your trunk should carry a properly inflated spare tire, tire-changing equipment, jumper cables, a shovel, tow strap, tire chains, and a tool kit. Depending on the conditions, you might also carry traction mats and a bag of salt or cat litter.

Always be prepared with a "survival kit" that remains in the car, and remember to replenish items after use. Essential supplies include a working flashlight and extra batteries, flares, reflective triangles and brightly-colored cloth, compass, first aid kit, exterior windshield cleaner, ice scraper and snow brush, wooden stick matches in a waterproof container, scissors and string/cord, and non-perishable, high energy foods like unsalted canned nuts, dried fruits, and hard candy.

In addition, if you are driving long distances under cold,

snowy, and icy conditions, you should carry supplies to keep you warm. Cold weather gear should be in the vehicle between October 1 and April 30 (recommended). Exposure to cold for long period of time can cause hypothermia. Hypothermia occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Important items include additional base layers, a heavy coat, warm gloves, boots, socks, a hat, handwarmers, and blankets.

If you become stranded, do not leave your car unless you know exactly where you are, how far it is to possible help, and are certain you will improve your situation by leaving.

For more information, visit nsc.org.

Winter Car Kit Checklist

- ☑ shovel
- ☑ windshield scraper/snow brush
- ☑ flashlight
- ☑ snacks
- ☑ jumper cables
- ☑ flares and matches
- ☑ small broom
- ☑ spare radio with batteries
- ☑ water
- ☑ fluorescent distress flag
- ☑ Sand or shingles
- ☑ hats, sock, mittens
- ☑ blanket

Moving Snow Safely

Everyone involved in snow removal, whether commercial or residential, should be aware of the dangers associated with piling snow on, under, or near CVEA equipment, lines, and facilities.

State of Alaska statutes prohibit any equipment from operating within 10 feet of an overhead electrical line. The 10-foot rule includes the highest point of the equipment being used and includes people on the ground, on a snow bank, or on the equipment. When snow is pushed under or near CVEA electrical lines, it creates a potential hazard for the equipment operator and general public. CVEA asks all snow removal equipment operators to keep in mind the 10-foot rule when pushing and piling snow.

Snowfall often obscures electrical equipment located directly on the ground and identified with snow markers. Make sure you are aware of the location of this equipment when moving snow. If you are unsure, please contact CVEA.

Do not push snow against or pile snow on top of any electrical equipment. The force of the moving snow may cause damage to the equipment and create electrical hazards. This may also compromise reliability of the system due to the barrier created when access to the equipment becomes necessary.

If you come into contact with the equipment and your vehicle or equipment becomes entangled, please do not attempt to free your vehicle or equipment and do not exit your vehicle unless a more hazardous condition exists inside. If it is necessary to exit, jump away from your vehicle ensuring you do not come into contact with your vehicle and the ground at the same time. Call CVEA immediately.

CVEA asks everyone to keep an eye out for potential electrical hazards, including heavy snow and ice buildup on powerlines. Never approach or make contact with an electrical line or damaged equipment. If you see a hazardous situation, please contact CVEA immediately at 822-3211 or 835-4301. To report something after hours, call 866-835-2832. ■

Resources, Reliability and Power

A look at resource adequacy in the Northwest

Dear Customers:

When you flip on a light switch, turn on the television or charge your phone, what do you think about? Chances are you aren't thinking about the electricity you need to power your day, let alone where it comes from. Why would you?

We rely on electricity to be available when we need it. Electricity is such a large part of our daily routine that we don't typically consider what would happen if we didn't have access to it at our fingertips.

Most of the electricity delivered to Tillamook PUD customers comes from the Bonneville Power Administration. A small portion of Tillamook PUD's power fuel mix also includes local green power, which is electricity generated by methane digesters.

The current BPA fuel mix consists of 85.09% large hydroelectric, 10.60% nuclear, 2.74% non-specified (power bought by BPA from another system without knowledge of the specific fuel type), 0.83% wind, 0.73% small hydroelectric and 0.01% natural gas. The table to the right shows the fuel mix ratio compared to the Northwest and the nation.

As you can see, hydroelectricity is the main source of fuel for both BPA and the Northwest. However, when compared to national energy sources, hydroelectricity is only 7% of the fuel mix. Other sources present are wind, natural gas, nuclear and a significant amount of coal.

As the focus on environmental impacts intensify each year, and fossil fuel burning regulations increase, coal-fired power generation sources are retiring at a steady pace, with some coal plants retiring earlier than originally planned. This means the fuel mix for the Northwest—and across the nation—will see a shift from fossil fuels as utilities look for more carbon-free and renewable power generation options.

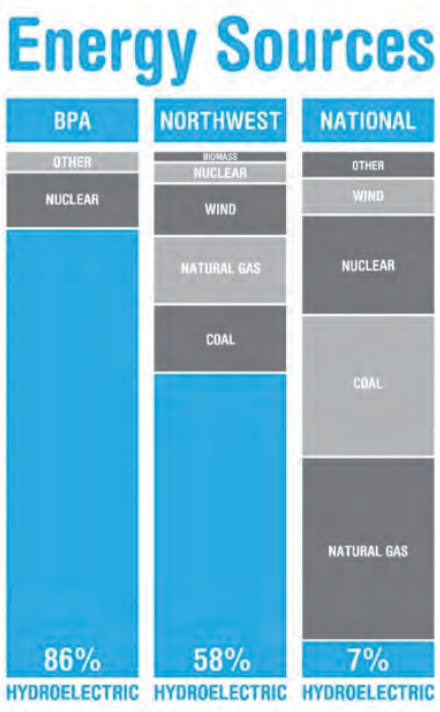


TABLE PROVIDED BY THE BONNEVILLE POWER ADMINISTRATION. DATA FROM 2018.

Though the movement toward carbon-free power generation sources is important, some of these energy sources make it difficult to meet our current reliability standards. As an example, wind-generated electricity requires a minimum wind speed to produce electricity, which is not always guaranteed by nature. Additionally, wind-generated electricity isn't always a good candidate to be matched with energy storage due to the inconsistency in wind patterns.

Under legislation passed in 2016, Oregon became the first state with a plan to eliminate coal power by 2035. Oregon is not alone in this, as many other states across the nation have adopted schedules to eliminate coal-fired plants.

Though this may seem far off in the future, it is actually coming faster than we think. The need to plan for how we will replace the loss of fossil fuel-powered generation sources raises several questions. Will we have adequate resources in the form of renewables to account for the power generation sources we are losing? How will natural gas-powered generation be used to meet our energy needs? Will we be able to rely on electricity being delivered to us all day, every day?

We are working to address these questions. At industry forums and trade association meetings and within industry work groups, we continually discuss resource adequacy and actively look for solutions to ensure reliability of the electric system for all of us in the Northwest.

I appreciate the approach our leaders have given to environmental issues and the work they do to combat or reduce our impacts from the change in our climate. However, no matter where you stand on green initiatives in Oregon or across the nation, there are challenges to consider.

While it is important to recognize the environmental impacts power generation sources create, we must also consider how to manage the reliability issues we will face as these power-generation sources are eliminated. This will take a collaborative effort from our legislative leaders and our industry partners to make sure we continue to meet the energy needs of the Northwest.

I encourage you to follow these important changes, ask questions and keep an open mind to possible solutions.

Sincerely,

General Manager Todd Simmons

For an interesting perspective on this issue, check out the KGW News documentary, "Will there be enough electricity after coal plants shut down?" https://tinyurl.com/qujszc9

Headed to College?

Apply for an Academic Scholarship from Golden Valley Electric

Applications are now available for $31,000 worth of scholarships from Golden Valley Electric. Seven academic scholarships will be awarded in April 2020.

To be eligible for a Golden Valley Electric scholarship, the applicant or someone in the applicants' immediate family must be a member of GVEA.

Applications and complete guidelines are available for download at www.gvea.com/inside/scholarship.

Application Deadline: Postmarked Feb. 28, 2020.

Scholarships:

Academic Degree ($15,000)

This is a four-year scholarship awarded to only one student each year. Applicant must be a graduating senior from a high school, correspondence study, or distance education program in GVEA's service area. Applicant must be pursuing a four-year Bachelor Degree at any University of Alaska campus and have a minimum cumulative high school GPA of 3.5.

Academic ($2,500)

This nonrenewable scholarship will be awarded to three students. Applicant must be a graduating senior from a high school, correspondence study or distance education program in GVEA's service area. Minimum cumulative high school GPA of 3.0 required. Applicant must be pursuing a four-year Bachelor Degree at an accredited school.

Continuing Education ($2,000)

This nonrenewable scholarship will be awarded to three students. Current year graduating high school seniors are not eligible. Applicant must be enrolled or accepted as a part-time (at least 6 credit hours per semester or 4 hours per quarter) or full-time student at an accredited school in a program leading toward a Bachelor or Master's Degree. Applicant must have competed 12 or more credits with a minimum cumulative GPA of 2.5.

Career & Technical Education ($2,500)

This scholarship is ideal for students considering a career in a health, industrial or technical field such as cosmetology, dental hygiene, diesel/heavy equipment operation or auto mechanics. This is a nonrenewable scholarship awarded to one student per year. Applicant must be enrolled or accepted as a part-time (at least 6 credit hours per semester of 4 hours per quarter) or full-time student at an accredited school in a program leading toward a recognized license, certificate, or an Associates Degree. Applicants must have a minimum cumulative GPA of 2.0 at the most recent educational institution attended (high school or post-secondary)

Applications for this scholarship will be available in April 2020. This scholarship will be awarded in August 2020.

GVEA
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Your Touchstone Energy® Cooperative

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Rural Co-ops Help Share the Power at Home and Abroad

By Joseph Hathaway

Linemen from Texas work to extend distribution lines to new service territory in Haiti
PHOTO COURTESY OF TRINITY VALLEY ELECTRIC COOPERATIVE

More than 80 years ago, many rural areas in America were in darkness. Residents, farmers and ranchers were brought into the light by dedicated electric cooperative leaders who planted poles and strung wire for places that some said would never have electricity because investor-owned utilities were not willing to spend the money to extend service. Cooperatives came to the rescue of many of these underserved communities.

Few people today remember when the lights first came on in their community. Few remember how a simple illuminated lightbulb meant a new way of life.

In America in 2020, the electric grid is ubiquitous. It is hard to believe an estimated 1.1 billion people—14% of the global population—still do not have access to electricity. Many more suffer from poor-quality supply.

America's electric cooperatives are famous for their transformative success in electrifying rural areas since the Great Depression. Less well-known is the role many co-ops have played for more than half a century in bringing power to every corner of the world.

Since forming in 1942, the National Rural Electric Cooperative Association has been committed to improving the quality of life in rural America by providing access to safe and reliable electricity. Twenty years later, under the Kennedy Administration, NRECA International was created through a partnership between NRECA and the newly established United States Agency for International Development to share the lessons learned in the electrification of America with developing countries and to strengthen ties with those countries.

Since that historic agreement, 160 million people in 45 counties have benefited from the hard work of volunteer lineworkers and electric experts from hundreds of rural co-ops around the nation. Many lives in developing nations have improved due to increases in agricultural productivity, access to health care, water supply and more that create new jobs and higher incomes.

The program epitomizes the principle of Cooperation Among Cooperatives—people helping people.

During any given project, a team of volunteers working with NRECA International spends several weeks helping residents and communities—usually in impoverished areas in harsh terrain or mountainous regions—install electricity and meet basic needs for technical infrastructure. Teams provide training and development aid that gives these communities the knowledge and resources to maintain the systems after the NRECA team has left.

Many of the areas develop their own rural electric cooperatives to make sure their future is set when it comes to safe, reliable electricity. NRECA International's first project—a small electric cooperative in Santa Cruz, Bolivia—has become the world's largest co-op, with more than 600,000 members. Since its formation, NRECA International has helped form more than 250 cooperatives in Latin America, Asia and sub-Saharan Africa.

Perhaps even more importantly, the projects create critical interpersonal and cross-cultural relationships on a grassroots level.

America's electric co-op workforce is intimately connected to members. Line crews and staff volunteering their time, talent, knowledge and resources is a direct expression of a basic operating principle, Concern for Community. Working globally gives those in the cooperative network a sense of shared purpose in making the world a better place for people everywhere and in being an ambassador of the cooperative business model.

Rural cooperatives such as OTEC know that electrifying rural areas at home or abroad results in growth, sustainability and prosperity for communities. Cooperatives across Oregon have an opportunity to complete a project in Central America, which we will discuss further next month. Stay tuned! ■

Strength In Numbers

For cooperatives around the world, power comes from sticking together

HENRY FORD SAID, "Coming together is a beginning. Keeping together is progress. Working together is success."

Cooperatives understand the value of teamwork. After all, it is one of our founding principles.

In times of need or in times of triumph, a strong network of cooperatives and their members band together to meet challenges and celebrate successes.

Whether restoring power following a storm, teaming up to attract business or fighting for affordable energy initiatives in the nation's capital, cooperatives work together and share resources with each other to accomplish the task at hand.

There is a history of co-ops helping co-ops in times of crisis. In the days and weeks following traumatic disasters—such as hurricanes in our area—crews from across the country helped rebuild our ravaged electric system.

With the help of other cooperatives, EREC restored power to members safely and efficiently—and much more quickly than we could have without them.

On numerous occasions, our crews have done the same, traveling to help others. They will continue to do so in the future.

Co-ops also join forces to aid in economic development efforts. These partnerships allow EREC and other cooperatives to pool resources to recruit businesses that bring much-needed jobs and tax revenue to our area.

There is strength in numbers. Co-ops have sent a strong message to Washington that energy must remain affordable and reliable. Through a network of cooperatives across the country, our voice is heard on issues that impact energy cost and availability.

We cannot all converge on Capitol Hill to make our position known, but we can work together to send representatives to deliver our message.

Cooperatives truly use strength in numbers. Whatever the reason, whatever the need, we come together to help our fellow cooperatives and protect our members' interests. And united cooperative strength is powerful. ■

Economic development partnerships with other co-ops help bring jobs and prosperity to our communities.

Through a unified national voice, co-op advocates send a strong message to Capitol Hill that energy must remain affordable and reliable for members.

Cooperatives help each other in times of need, such as when Escambia River Electric Cooperative dispatches crews and equipment to help with power restoration in other cooperative areas that have been ravaged by hurricanes.

With Cooperatives, it Truly Is a Matter of Principles

You might be surprised by the number of cooperatives around you. Co-ops have been formed to sell produce and electricity, offer financial and banking services, provide housing and health care, and much more.

So where did the bright idea for co-ops come from? It is a matter of principles—seven, to be exact.

The modern movement traces its roots to a store started by weavers in the town of Rochdale (pronounced Rotch-dale) in northern England in 1844. The group was guided by a set of principles drawn up by one of its members, Charles Howarth.

When introduced into the United States by the national grange in 1874, the Rochdale Principles fueled a cooperative explosion.

Although stated in many ways, the Rochdale Principles require that a cooperative be open for anyone to join. Every member retains one voice, one vote. Electric co-ops hold member business meetings annually, allowing members to elect fellow consumers to guide the co-op and have a say in how their utility is run.

Education is also a big focus. Electric co-ops provide safety information in schools, share ideas on how to make your home more energy efficient to keep electric bills affordable, and make sure elected officials and opinion leaders know about the co-op business model.

Because there is strength in numbers, co-ops tend to stick together when tackling regional and national issues.

Perhaps most importantly, co-ops are independent and community-focused, not tied to the purse strings of far-flung investors.

Co-ops help drive local economic development, fund scholarships, support local charities and work to make life better in the areas they serve. That is the heart of the cooperative difference.

Making Your Pennies Count

FKEC's Charitable Trust Boards Uses Your Small Change to Make a Big Difference

The FKEC Members Charitable Trust works diligently to allocate all donations collected through FKEC's Operation Round-Up® program (see facing page). The hard-working volunteer board often faces difficult decisions as requests for assistance can sometimes exceed available funds by 400%.

The community-minded program was established in 1994 to accumulate and disburse funds for worthy purposes in FKEC's service area — the Upper and Middle Keys. The Trust was not envisioned to replace or supplement existing services or organizations, but was developed to help fund those persons and needs of the community which have "fallen through the cracks" of other organizations, or for those persons or groups who have no funding.

The Trust board consists of nine seats to be filled by representatives from our four districts. The nine dedicated volunteers are responsible for reviewing all the requests submitted from their district, and then meet monthly to determine how best to distribute the Trust's funds.

Recently, one of the nine trust board seats was left vacant when a director had to step down for personal reasons. Not to worry, the board continues their charitable work while a new dedicated member is found.

FKEC expresses heartfelt thanks to the Trustees who make this program possible:

- Richard Overfield, Chairperson
- Sharon Wampler, Vice Chairperson
- Tony Macaluso, Secretary
- Marlin Simon, Treasurer
- Laura Brown
- Nancy Wall
- Mary Russell
- Dianne L. Weitz

The Trust Board and FKEC also thank FKEC Executive Assistant Susan Kohlhofer for her tireless efforts and dedication to the overall management of the Trust.

Letters From Members

Dear Members Charitable Trust,

This is a very small token of our huge appreciation of financial assistance as I continue on my journey to be a cancer survivor/ warrior! Thank you for easing the burden of a major medical diagnosis with rent assistance. Continued blessings.

Thank you.

To FKEC's Charitable Trust,

Words can't explain how grateful we are for your Trust. It's helped us tremendously. My family and I were able to catch up and get back to normal. We cannot thank you enough.

Use your energy more wisely by managing and tracking your electricity usage via FKEC's SmartHub online account service.

Knowledge is Power

WHEN IT COMES TO ELECTRICITY, the more you know about the power you use, the more you can save by using it wisely. Using energy wisely helps conserve our natural resources and can also result in a return on your electric bill.

Monitor Your Account Usage

As an FKEC member, you can easily track your home or business's power usage by logging into your online FKEC SmartHub account at FKEC.smarthub.coop. By visiting the "View and Manage My Usage" section of the website, you can analyze and understand usage trends to find ways to cut back.

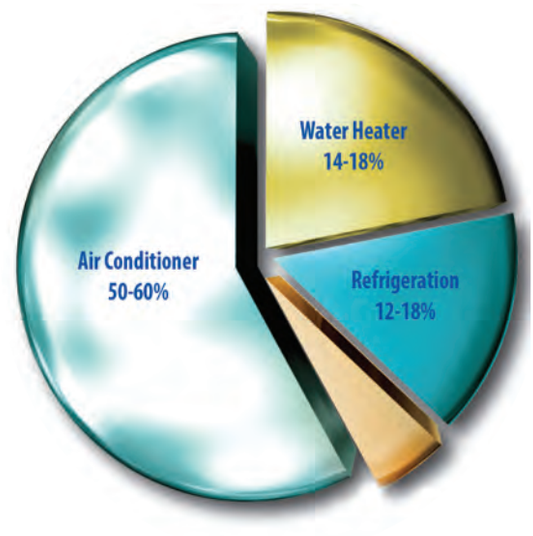
By simply setting up an FKEC SmartHub account, any co-op member can create and track a monthly budget to avoid unexpected high utility bills. You can also set a point or range in time to compare differences in usage, compare your use and costs, and get energy-saving tips.

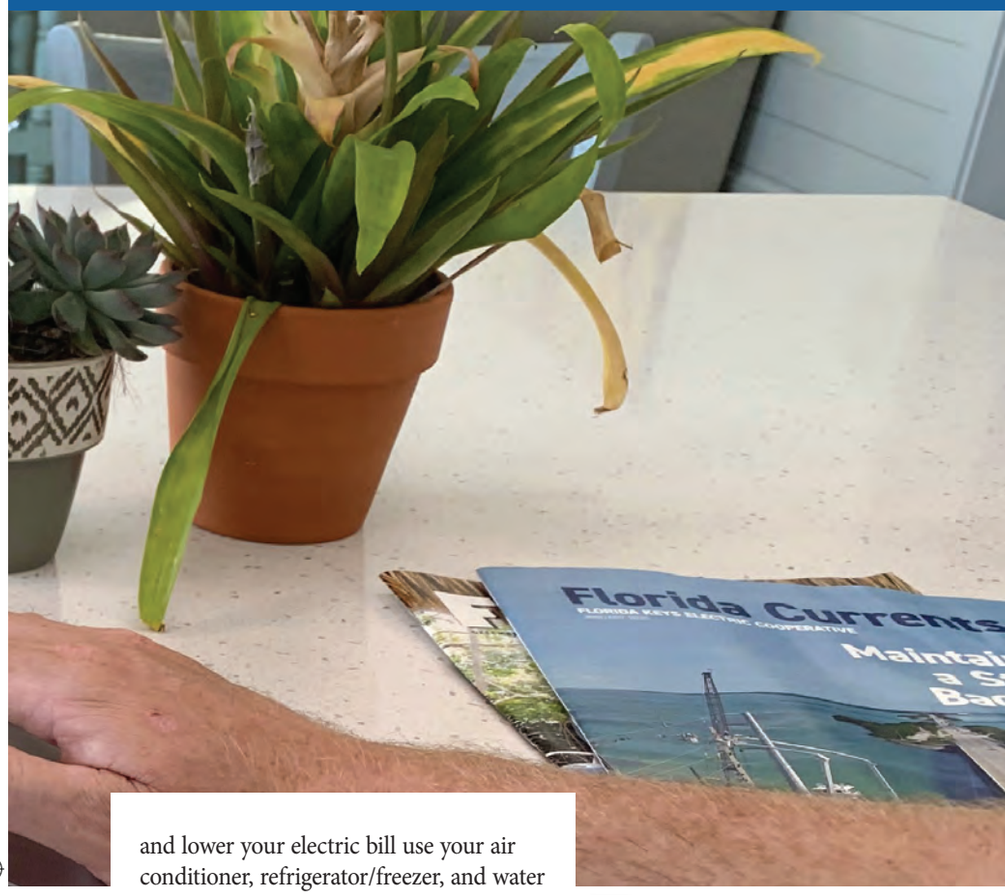
In addition to better understanding your power usage, SmartHub also offers easy and secure online bill pay, or access to your payment history. You can also update your contact information. SmartHub is available online and via the mobile app at the App Store or Google Play. Learn more at www.FKEC.com.

Use Your Energy Guzzlers Efficiently

Without you doing any tracking of your power use, the three appliances likely guzzling the most energy in your home are your air conditioner, water heater, and refrigeration.

To reduce your power consumption





and lower your electric bill use your air conditioner, refrigerator/freezer, and water heater efficiently. Simply cleaning filters and setting temperatures can make a difference.

The list to the right gives you tips on ways to use your biggest energy consumers efficiently. If you pay attention to the little things, the money you save will add up in a big way.

Track Your Appliances

Information about the amount of power a device uses can help you identify energy vampires, determine if an appliance needs upgrading to a more efficient model, or allow you to cut back on energy use when consumption spikes. To track how much electricity an appliance or device is using, consider buying an electricity usage monitor. You plug the monitor into your outlet and then plug the appliance or electronic device you want to track into that.

In their simplest form, an electricity monitor calculates the kilowatt-hours consumed by day, week, or month on a screen on the device. More sophisticated versions use apps to interact with your smart device, alert you when power usage is up, and some can even remotely turn off the device being monitored. These devices come in a wide range of prices, capabilities, and sophistication, so do your research.

Easy Energy Efficiency Tips

Air Conditioner
- Clean and replace filters monthly
- Shade your outdoor AC unit without blocking air flow
- Seal leaks/check insulation
- Use a programmable thermostat
- Use fans to augment cooling

Water Heater
- Install low-flow faucets and showerheads
- Purchase a more efficient model
- Buy ENERGY STAR appliances (i.e. dishwasher and clothes washer)
- Set water heater to 120 degrees

Refrigerator and Freezer
- Keep your refrigerator full without blocking air flow
- Allow hot foods to cool and cover any food that will release moisture
- Clean coils every 3 months
- Replace old refrigerators or freezers with newer, more efficient models

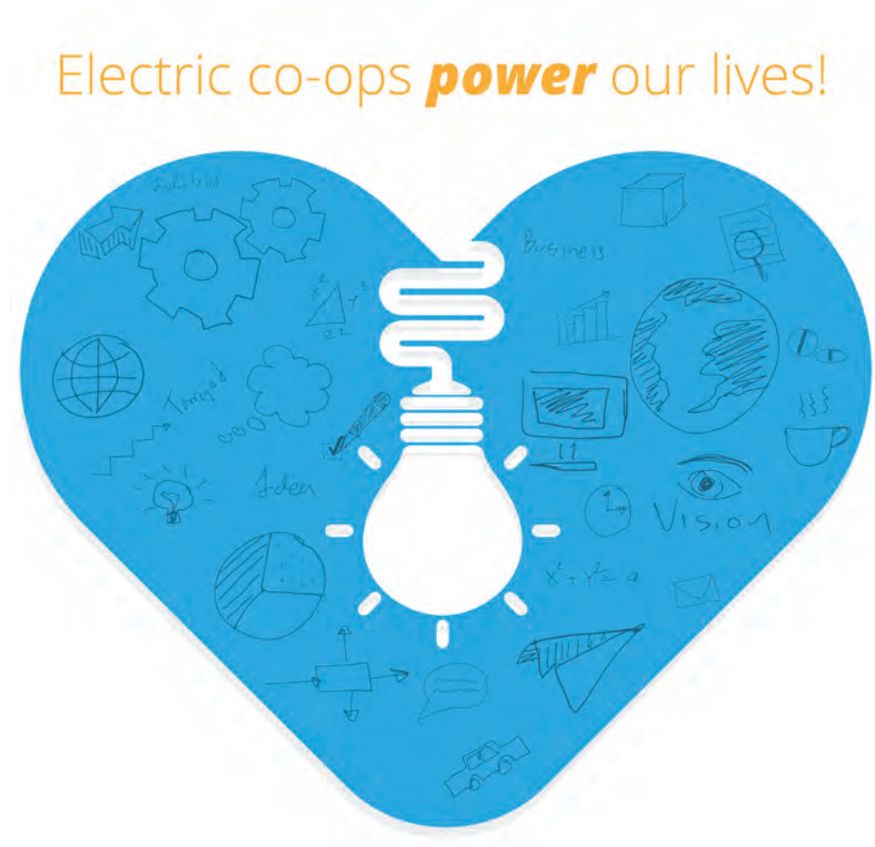
Electronics
- Consider buying LED TVs. And remember, the larger the screen the more energy is consumed
- Use energy-saving power strips to avoid "vampire" power loads, DVD players, TVs, computers and battery chargers draw minimal power even when off
- Use power management settings on computers and monitors
- Set computers to automatically switch to sleep mode instead of using a screen saver — Screen savers do not reduce energy use.

More resources available at www.FKEC.com

We Love Our Community

Let us count the many ways we demonstrate how much we care

By Anne Prince



"TO MOVE FORWARD, you have to give back."

This quote from Oprah Winfrey reflects the special bond and obligation that ties Glades Electric Cooperative to the community we serve.

With Valentine's Day approaching, we can't think of a better time to express how much we love this community and serving you, the members of the co-op.

We know when we helped to bring electricity to Florida's Heartland many years ago the quality of life improved for all. Through the years, other issues needed to be tackled, and we have been at the forefront of helping to address some of those issues. We want to help meet the long-term needs of our community to ensure it continues to thrive because we live here just like you.

While our top priority is to provide safe, reliable and affordable energy to you, equally important is our mission to enrich the lives of the consumer-members (that's you!) we serve. This focus to benefit the larger community is central to the way we operate as a cooperative.

Glades Electric Cooperative knows electricity is a critical need for modern-day life, but it takes more than poles and power lines to make a community.

Over time, our co-op has evolved to meet the changing needs of our community, thereby improving the quality of life for everyone. And that can mean many different things.

It can mean programs for our youth, such as education scholarships through the Glades Electric Educational Foundation or the Rural Electric Cooperative Youth Tour, where we take a local high school junior to Washington, D.C., for a weeklong immersion to experience democracy in action.

It means establishing the Glades Electric Charitable Trust to administer Operation Round Up funds to assist local nonprofit organizations and individuals in need.

It means partnering with organizations such as Habitat for Humanity and the United Way to provide volunteers for projects throughout our communities.

It also means leading the way for economic development initiatives, both in the past through electrification and presently through the Placemaking project in Moore Haven.

During the past 75 years, our community-focused programs and other giving projects have built homes, fed hungry families, and funded programs for youth, special needs individuals, the elderly and so much more—and we couldn't do any of this without you, our members.

We all benefit from these programs because of you and your neighbors. You empower Glades Electric Cooperative through your membership and through your participation in and support of these programs.

As a local business, we are proud to power your life and bring good things to our community. We hope you will continue to guide our efforts by sharing your perspective as we plan for the future.

The energy landscape is undergoing dramatic change fueled by evolving technology and consumer desires for more options. While the larger environment in which we operate is constantly changing, one thing remains the same: By working together, we can continue to do good things for our community. ■

Safeguard Your Loved Ones

This winter, take extra precautions to use electricity safely

By Abby Berry

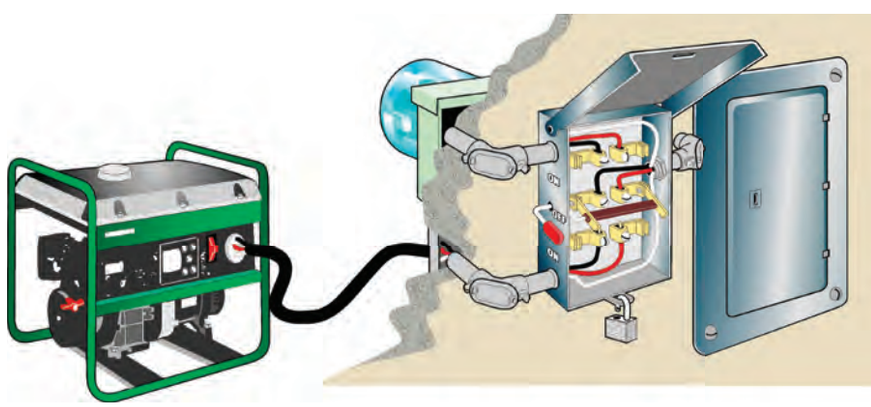
IT'S NO SURPRISE WINTER MONTHS bring increased potential for fire risks and electrical safety hazards. This makes sense because during the coldest months, consumers use additional electrical devices and appliances, such as space heaters, electric blankets and portable generators.

The National Fire Protection Association estimates 47,700 home fires occur each year in the U.S. due to electrical failure or malfunction. These fires result in 418 deaths, 1,570 injuries and $1.4 billion in property damage annually.

This winter, safeguard your loved ones and your home with these tips from the Electrical Safety Foundation International.

- **Don't overload outlets.** Overloaded outlets are a major cause of residential fires. Avoid using extension cords or multi-outlet converters for appliance connections. They should be plugged directly into a wall outlet. If you rely heavily on extension cords in general, you may need additional outlets to address your needs. Contact a qualified electrician to inspect your home and add new outlets.
- **Never leave space heaters unattended.** If you're using a space heater, turn it off before leaving the room. Make sure heaters are placed at least 3 feet away from flammable items. Space heaters take a toll on your energy bills. If you're using them throughout your home, it may be time to upgrade your home heating system.
- **Inspect heating pads and electric blankets.** These items cause nearly 500 fires a year. Electric blankets more than 10 years old create additional risks for a fire hazard. Inspect your electric blankets and heating pads. Look for dark, charred or frayed spots, and make sure the electrical cord is not damaged. Do not place any items on top of a heating pad or electric blanket, and never fold them when in use.
- **Use portable generators safely.** Never connect a standby generator into your home's electrical system. For portable generators, plug appliances directly into the outlet provided on the generator. Start the generator first, before you plug in appliances. Run it in a well-ventilated area outside your home. The carbon monoxide it generates is deadly, so keep it away from your garage, doors, windows and vents. ■

A failed power strip sparked a fire that caused an estimated $5,000 damage to a home. Use multi-outlet devices sparingly. If you need more outlets, hire an electrician. PHOTO COURTESY OF TUALATIN VALLEY FIRE



If using a portable generator, never connect it directly to your home's electrical system. Backfeeding could be deadly. Either plug appliances directly into the outlet on the generator or hire an electrician to install a double-throw switch. PHOTO ILLUSTRATION BY PHIL ASAY