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JANUARY 2023

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ELECTRIC COOPERATIVE LIVING

Protecting reliable and
affordable electric power

New year, smarter home

Comforting casserole recipes

Win a Fire HD 10 Plus Tablet ▶ See Page 3

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EDITOR
Ann Foster Thelen

ART DIRECTOR
Joel Clifton

IAEC EXECUTIVE VICE PRESIDENT
Chuck Soderberg

IAEC DIRECTOR OF COMMUNICATIONS
Erin Campbell

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ON THE COVER

Special thanks to Marta Smigowska, a Consumers Energy member-consumer, for supplying this month's cover image. Submit high-resolution photos for consideration to editor@ieclmagazine.com. You could win \$100!

CELEBRATING A DIAMOND ANNIVERSARY

BY ERIN CAMPBELL



Whether you're celebrating a birthday or a historic anniversary, 75 years is a major milestone. At the Iowa Association of Electric Cooperatives

(IAEC), January 1948 was important because it marked the first month we published a statewide newspaper for member-consumers, titled "IRECA News." Sharing news and happenings from when IAEC was known as the Iowa Rural Electric Cooperative Association, the monthly tabloid quickly became a trusted and valuable source for information as more rural Iowa homes and businesses were receiving electricity through rural electric cooperatives.

An editorial in the first issue exactly 75 years ago reads:

"The editors will do everything their knowledge and zeal will allow to make the publication foremost in its field. They hope to present material which will so inform members they will be inspired to contact others who ought to unite with us and to convince outside readers the cooperative system merits their wholehearted support."

Remaining steadfast in our mission

While the name and format of our monthly statewide publication have changed a few times over the decades, our commitment to our readers has not. We remain faithful to the legacy of providing valuable information to Iowa's electric cooperative member-consumers about co-ops, rural economic development, energy efficiency, industry trends and electric safety. We also make the magazine more enjoyable by including recipes, contests and reader-submitted cover photos.

And in a world shifting to digital platforms, we prefer to mail a printed magazine each month because it breaks through the digital noise and gets read. According to a scientifically valid readership survey we conducted in 2020, 87% of those who receive our magazine take time to read it each month. In fact, 44% of those who receive this magazine spend 10 minutes or more reading our 16 pages of content each month! We simply can't get that kind of engagement in a digital format.



But we do embrace digital technology when it makes strategic sense. A few years ago, we scanned every hard copy of the statewide publication in our central files and digitized the pages of each monthly issue to preserve our archive for generations to come. I enjoy history and learning about the past in order to guide our future, so I am grateful for the ability to

access and search 900 monthly issues with the click of a mouse.

Energy topics stay at the forefront

Reading through our archive, I have seen many topics over the decades that are cycling back in the news today, including stories on nuclear technology, supply chain concerns and generating enough electricity to meet the growing electric demand of consumers. We'll look back on some of those headlines throughout the year as we celebrate our diamond anniversary.

I like to think that those first editors would be proud of where we stand 75 years later, carrying the torch they ignited so long ago. May this monthly publication continue to provide useful information to member-consumers of Iowa's electric cooperatives for another 75 years! Our cooperative system indeed merits your wholehearted support.

Erin Campbell is the director of communications for the Iowa Association of Electric Cooperatives.

EDITOR'S CHOICE CONTEST

Win a Fire HD 10 Plus Tablet

This 10.1-inch, full HD, 32 GB tablet boasts a display that is 10% brighter than previous generation, with more than 2 million pixels. Enjoy your favorite apps like Netflix, Facebook, Hulu, Instagram and more through Amazon's Appstore. Ask Alexa to play videos and music, open apps, make calls or send messages, check the weather, access compatible smart home devices and more.

Visit our website and win!

Enter this month's contest by visiting www.ieclmagazine.com no later than Jan. 31. You must be a member of one of Iowa's electric cooperatives to win. There's no obligation associated with entering, we don't share entrant information with anyone and multiple entries from the same account will be disqualified. The winner of the \$100 gift card for a local business from the November issue was Jeff V. Collins from Guthrie County REC.



ENTER ONLINE BY JAN. 31!

2023 IOWA YOUTH TOUR INTERN SELECTED

The Iowa Association of Electric Cooperatives has selected Ashley Sonderman from Portsmouth as its 2023 Iowa Youth Tour intern.



Ashley originally attended Youth Tour in 2019 as a student sponsored by Harrison County REC. She is currently a junior at Iowa State University studying marketing.

“Youth Tour was truly an experience of a lifetime. I would like to be able to give back to youth and help ensure that their trip is as rewarding as mine,” Sonderman says.

The Iowa Youth Tour intern is responsible for the trip’s social media efforts, taking and uploading photos from the trip, posting to the Iowa Youth Tour blog each day and helping with general chaperoning duties.

During the annual trip in June, follow IowaYouthTour on Facebook, Instagram and Twitter.

IOWA CO-OPS RECOGNIZED FOR SAFETY ACHIEVEMENTS



During the Iowa Association of Electric Cooperatives’ (IAEC) annual meeting in December, several Iowa electric cooperatives were congratulated for completing the Rural Electric Safety Achievement Program (RESAP) in 2022. The cooperatives included:

- Clarke Electric Cooperative, Inc.
- Eastern Iowa Light & Power Cooperative
- Grundy County REC
- Guthrie County REC
- Linn County REC
- Maquoketa Valley Electric Cooperative
- Nishnabotna Valley REC
- Osceola Electric Cooperative, Inc.
- Pella Cooperative Electric Association

- Southwest Iowa REC
- Western Iowa Power Cooperative

RESAP is a service of the National Rural Electric Cooperative Association (NRECA) and strives to promote the highest standards of safety among electric cooperatives.

IAEC fully supports the RESAP program and works with electric cooperative members in their safety achievements. The rigorous program requires annual reporting to NRECA of Occupational Safety and Health Administration Data and updates to the cooperative’s safety improvement plan. Every three years, additional data must be submitted to NRECA as well as participation in an onsite safety observation by NRECA at the cooperative.

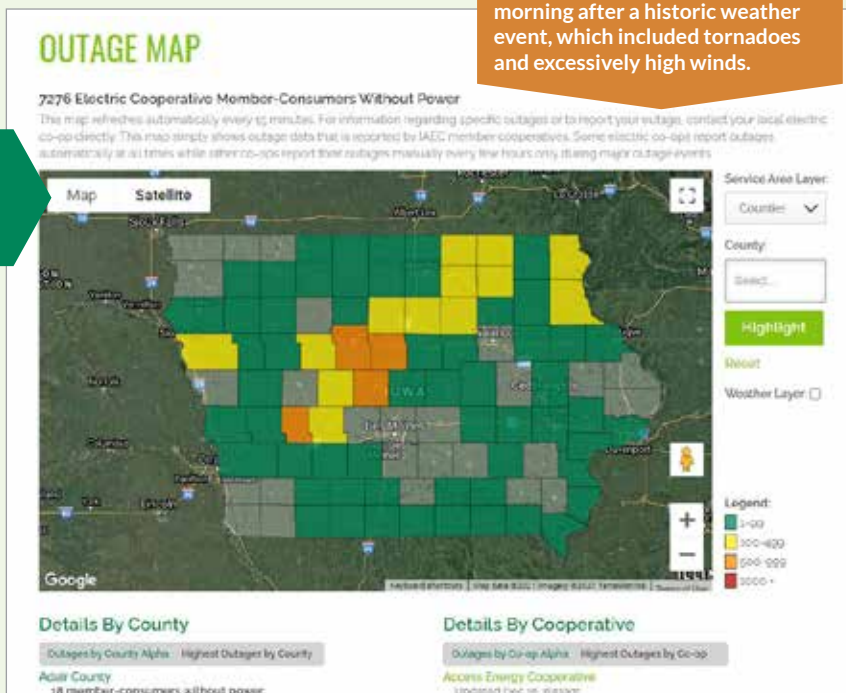
DID YOU KNOW?

STATEWIDE OUTAGE MAP

www.iowarec.org/outages

The Iowa Association of Electric Cooperatives (IAEC) maintains a statewide outage map. The map refreshes automatically every 15 minutes and shows outage data that is reported by IAEC member cooperatives. Most electric co-ops report outages automatically while other co-ops report outages manually every few hours only during major outage events.

For information regarding specific outages or to report your outage, always contact your local electric co-op directly. It’s also important that your local co-op is notified if your phone number or other contact information changes.



If you see downed power lines, always stay away from the lines and poles. Always assume the lines are energized and report any damage to your local electric cooperative.

USDA GRANTS AND LOANS SUPPORT RURAL IOWA

The U.S. Department of Agriculture (USDA) Rural Development recently announced the Department is investing \$5,225,944 in grants and \$21,662,000 in loans to promote rural economic development and job creation projects in 12 Iowa counties. These Rural Economic Development Loan and Grant Program investments involve several electric cooperatives in Iowa.

■ **Calhoun County Electric Cooperative Association** is receiving a \$1.5 million loan to fund a pass-through loan to Dobson Pipe Organ Builders LTD. This project will help provide funding to construct a new workshop in Lake City for the company, which lost its organ-building facility in a fire last year. The project is expected to create three new jobs.

■ **Eastern Iowa Light & Power Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Brand New Engines Inc. in Tipton. This project will help provide funding to construct a new 48,000-square-foot facility for the business and is expected to create 14 jobs.

■ **Iowa Lakes Electric Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Custom Assembly Inc./M.B.K. LLC. This project will renovate and customize a manufacturing facility in Spirit Lake and is expected to create 10 new jobs.

■ **Corn Belt Power Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Mary Ann's Specialty Foods, Inc., in Webster City in Hamilton County. This project will

help the food company expand its meat processing facility and purchase equipment. The project is expected to create 30 jobs.

■ **Corn Belt Power Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Western Iowa Energy LLC, an energy company with a biodiesel plant in Wall Lake in Sac County. This project will expand the biodiesel facility and purchase equipment.

■ **Pella Cooperative Electric Association** is receiving a \$1.5 million loan to fund a pass-through loan to LDJ Manufacturing Inc., a manufacturer of mobile fueling equipment near Pella in Marion County. This project will help expand the facility and increase employment opportunities.

■ **Heartland Power Cooperative** is receiving a \$1.5 million loan to provide a pass-through loan to Northern Country Cooperative Company in Stacyville. This project will support construction of a new 3-million-gallon capacity liquid fertilizer storage tank and a 40,000-square-foot chemical and seed warehouse.

■ **Raccoon Valley Electric Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Western Iowa Energy LLC, an energy company with a biodiesel plant

in Wall Lake in Sac County. This project will expand the production facility.

■ **Allamakee-Clayton Electric Cooperative** is receiving a \$1.5 million loan to fund a pass-through loan to Sunflower Child Care Center Inc. This project will help fund construction of a 29,000-square-foot childcare facility in Decorah to replace an outdated facility. The project will also include the purchase of equipment. Once in operation, the new facility will have capacity for 215 children and space to expand to 308 children.

■ **Woodbury County Rural Electric Cooperative** is receiving a \$1.5 million loan and a \$300,000 grant to help fund construction of a new medical clinic for Moville Area Medical Clinic Inc. in Woodbury County. Once built, this clinic will increase patient access and assist medical professionals in delivering quality healthcare. The project is expected to create 12 new jobs.

■ **Woodbury County Rural Electric Cooperative** is receiving a \$300,000 grant to replenish an existing revolving loan fund. This project will help fund construction of a new city hall for the city of Lawton, which will include a community room and maintenance facility.

ENTER TO WIN

WIN \$100 FOR A PUBLISHED COVER PHOTO



We're always looking for stunning images for the cover of *Iowa Electric Cooperative Living* magazine. If we select your photo for a cover, we'll award you with \$100. The photos must be clear, of an Iowa place served by an electric cooperative and in high resolution. To be considered, email photos to editor@ieclmagazine.com with "Cover Submission" in the subject line.

PROTECTING AMERICA'S ABUNDANT SUPPLY OF RELIABLE, AFFORDABLE ELECTRIC POWER

BY CONGRESSMAN RANDY FEENSTRA
AND CHUCK SODERBERG

Editor's Note: The following column was published in *The Hill* as an op-ed in late November to educate Congressional leaders about reliability concerns within the electric industry. The Iowa Association of Electric Cooperatives has a strong legacy of working with Iowa's elected officials and policymakers to raise awareness about issues affecting the safety, affordability and reliability of power for the cooperative member-consumers we serve.

In today's world, electricity is essential. American families rely on electricity daily to heat and cool their homes, wash their clothes, cook their meals, charge their phones, turn on the lights and connect to the world. And while it might seem like magic, electricity is not generated out of thin air. We expect the lights to turn on when we flip a switch and our phones to charge when we plug them into an outlet. Our energy policies must reflect these expectations and ensure that our families, businesses and communities have access to safe, reliable and affordable electricity.

Over the last few years, green-energy absolutists and federal policymakers

have prioritized an untenable, unrealistic and costly energy agenda over commonsense policies to power our country and provide American families with reliable, affordable energy. This detrimental agenda for American-made energy at the highest levels of government has caused gas increases and volatile electricity costs. Even worse, these policies have the potential to be particularly catastrophic for our rural communities, farm families and main street businesses.

Local model empowers lowans, ensures abundant supply

As opposed to states like California, whose one-size-fits-all energy policies

impose production restrictions that lead to blackouts and high costs, Iowa is home to 48 locally owned, community-focused electric cooperatives that prioritize reliability and affordability for the more than 650,000 lowans and 210,000 businesses, homes and farms that they serve.

Thanks to local governance and diversified power generation sources, the average co-op member household in Iowa pays about \$5 a day for electricity and Iowa electric cooperatives have returned more than \$300 million to their member-owners in the form of retired capital credits. These low costs and attractive

returns are only possible due to a commonsense management approach that empowers electric cooperatives to invest in the most productive and cost-effective power sources for their member-consumers. We urge national policymakers to do the same.

To support a robust cooperative ecosystem and expand abundant supplies of affordable electricity, lawmakers must prioritize economic and energy certainty for electric cooperatives by advancing an all-of-the-above American energy strategy that prioritizes permitting reform and provides low-interest capital for community development projects.

All-of-the-above energy strategy is critical

Reliable and affordable electricity generation requires source flexibility and policy malleability. In other words, Congress should embrace an all-of-the-above energy agenda that ensures that Iowans can access affordable electricity when and where they need it, while simultaneously investing in renewable energy sources that are abundant in Iowa like wind power.

To date, Iowa electric co-ops have invested in 33 wind farms, over a dozen utility-scale and community-based solar projects, four landfill gas projects, five methane digesters and multiple hydroelectric stations to complement more traditional power sources like natural gas and coal. Some co-ops are also looking at small-scale nuclear technology as another dispatchable power generation option.

Additionally, Iowa electric co-ops have interconnected roughly

2,200 member-owned generation installations as a demonstration of support for an all-inclusive generation mix, even from non-utility locations. By allowing local cooperatives to determine the best, most comprehensive energy strategy for their consumers, our families, farms and businesses benefit from lower costs, energy security and vital investments in our rural communities.

Prioritizing permitting reform

Congress needs to prioritize federal regulatory and permitting reform. While a great deal of buzz was generated during the end of September over this issue, we are confident that a serious debate is needed over how the federal government can facilitate the development of critical energy and transmission projects. As firm believers in local control, we believe the value of energy infrastructure is best determined by those who will benefit from a particular project. Allowing utilities and the people they serve to have a voice in where a transmission line might be located and who might pay for it is important. The federal government isn't always in the best position to tell the American people what is in their best interests locally.

Strengthening rural economies and communities

We need to protect and strengthen the Rural Economic Development Loan and Grant program, which powers economic and community development and keeps families and good-paying jobs in rural Iowa. This program provides zero-interest loans of up to one million dollars to local utilities and cooperatives, which

are then tasked with passing this funding along to small businesses and community organizations to support initiatives that create jobs, enhance economic opportunity, revitalize main streets and aid small businesses in rural America.

Ensuring that our rural communities have access to the capital and credit they need to strengthen long-term economic vitality and attract new residents and businesses to populate small, vibrant towns must be a top priority of the 118th Congress and the upcoming Farm Bill reauthorization.

Electric cooperatives play a crucial role in delivering safe, affordable and reliable electricity to hundreds of thousands of Iowans and tens of millions of Americans. In both the long and short term, the largest threat to our nation's energy producers and electricity distributors remains federal overreach and unrealistic mandates. Therefore, it is the responsibility of Congress to eliminate red tape that hinders their ability to power our businesses, homes, hospitals and farms and to instead provide them with the flexibility to streamline baseload power generation and diversify their power sources.

Our laws must allow electric cooperatives to do what they do best: power our local economies and provide our thriving communities with reliable, affordable electric power that we all rely on every day.

Congressman Randy Feenstra represents Iowa's 4th congressional district, and Chuck Soderberg is the executive vice president and general manager of the Iowa Association of Electric Cooperatives.





BAKED GOULASH

- 1 pound ground beef
- 1 medium onion, diced
- 2 cups cheddar cheese, shredded, divided
- 1 24-ounce jar spaghetti sauce
- 1 8-ounce package elbow macaroni, cooked and drained
- 1 teaspoon basil
- 1 teaspoon oregano
- 1 teaspoon garlic powder
- ½ teaspoon salt
- ½ teaspoon pepper

Brown beef and onion, drain. In large bowl, combine 1 cup cheese and remaining ingredients. Add beef and onion to pasta and sauce mixture. Place in 9x13-inch baking dish and top with remaining 1 cup cheese. Bake covered at 350 degrees F for 20-25 minutes until done. *Serves 6-8*

Connie Betts • Woodbine
Harrison County Rural Electric Cooperative

BEV'S CASSEROLE

- ¼ pound cooked chicken, turkey or ham
- 1 cup uncooked macaroni
- 1 cup cheese, cut up
- 1 can cream of mushroom or chicken soup
- 1 cup milk
- 3 tablespoons onion, chopped

Mix all ingredients together and put in a 9-inch square baking dish. Cover and refrigerate several hours or overnight. Bake covered at 350 degrees F for 45 minutes. Make this simple casserole with leftover chicken, turkey or ham. Add a salad and your next meal is ready. *Serves 6*

Rhonda Benton • Rowan • Prairie Energy Cooperative

CHICKEN PASTA OVERNIGHT CASSEROLE

- 1 can cream of chicken soup
- 1 can cream of celery soup
- 2 cups milk
- 1 tablespoon Italian seasoning
- 6-8 dashes tabasco sauce
- garlic salt, to taste
- pepper, to taste
- 2 cups Colby Jack cheese, shredded, divided
- 1 7-ounce package shell pasta, uncooked
- 3-4 cups chicken, cooked and cubed
- 1 can water chestnuts, sliced and drained
- 1 cup onion, chopped
- 1 cup celery, sliced
- 1 small bag frozen mixed vegetables

Put soups in mixing bowl and beat to smooth. Add milk, 1 cup at a time, until absorbed. Add seasonings and stir well. Add 1 cup cheese and remaining ingredients, stir until well mixed. Pour into buttered or sprayed 9x13-inch casserole dish. Cover tightly with saran or Press-n-Seal wrap. Refrigerate overnight. Set out 1 hour before baking. Bake covered with foil at 325 degrees F for 1½ hours. Uncover and add remaining 1 cup cheese. Cook for 30 minutes more for light browning. *Serves 10-12*

Belinda Fink • Cambridge • Consumers Energy

UPSIDE DOWN PIZZA CASSEROLE

- 1½ pounds ground beef
- 1 teaspoon salt
- 1 teaspoon black pepper
- 1 tablespoon onion, chopped or minced
- 1 16-ounce jar spaghetti sauce
- sliced pepperoni, optional
- 2 cups mozzarella cheese, shredded
- 1 cup flour
- 2 eggs
- 1 cup milk
- 2 tablespoons vegetable oil
- Parmesan cheese

Brown beef with salt, pepper and onion, drain. Mix beef with spaghetti sauce and pepperoni, if desired. Layer the meat mixture in a 9x13-inch pan. Sprinkle mozzarella cheese over meat. Make a crust by mixing flour, eggs, milk and oil. Pour the crust mixture over top. Sprinkle Parmesan cheese on top and bake at 350 degrees F for 1 hour. *Serves 6-8*

Judy Jackson • Hedrick
Access Energy Cooperative

BUSY DAY CASSEROLE

- 1 pound ground beef
- 1 tablespoon butter
- 4 medium potatoes, peeled and cubed
- 1 teaspoon salt
- 1 can mixed vegetables
- 1 can tomato soup
- 1 pound cheese, shredded, optional

Brown beef with butter, drain grease. Put in 10x10x2-inch glass baking dish. Add potatoes, salt, vegetables and soup. Mix will and cover. Bake at 350 degrees F for 1 hour, or until potatoes are done. If desired, top with cheese and melt in the oven for a few minutes. *Serves 9*

Raymond Robbins • Fort Madison
Access Energy Cooperative

CABBAGE CASSEROLE

- 1 medium head cabbage
- ½ cup butter or margarine
- 2 tablespoons flour
- 1½ cups milk
- 1 8-ounce package cream cheese
- 1 teaspoon salt
- ½ teaspoon pepper

Cut up and cook cabbage, then place in casserole dish. Combine butter and flour and cook 2 minutes. Add milk, cream cheese, salt and pepper. Stir until cream cheese is melted. Pour mixture over cabbage. Bake at 350 degrees F for 1 hour. *Serves 4-6*

Lori Collingwood • Ladora
T.I.P. Rural Electric Cooperative

CHEESEBURGER QUICHE

- ½ pound ground beef, browned
- ⅓ cup onion, chopped
- ½ cup milk
- 4 eggs, beaten
- 1½ cups cheese, shredded
- ½ teaspoon salt
- ½ teaspoon oregano
- ⅛ teaspoon pepper
- pie shell, optional

Mix ingredients together and place in pie pan, with or without pie shell. Bake at 350 degrees F for 35 minutes. *Serves 4*

Rebecca Hancox • Plano
Chariton Valley Electric Cooperative

HAM/CHICKEN CASSEROLE

- 1 box Rice-a-Roni wild rice
- ½ small package frozen peas
- 1½-2 cups ham, diced
- 1½-2 cups rotisserie chicken, bite-sized pieces
- 2 cups cheese, shredded
- 1 cup mayonnaise
- 1 can cream of celery soup
- ½ teaspoon dry mustard
- ½ teaspoon curry powder
- croutons

Prepare wild rice according to package directions. Mix all ingredients together except for croutons. Place in a greased 9x13-inch casserole pan. Top with croutons (can substitute with diced bread mixed in melted butter). Bake at 350 degrees F for 1-1½ hours, or until hot and bubbly. *Serves 12*

Deb Wentzien • Lincoln
Grundy County Rural Electric Cooperative Association

WANTED:

BEEF RECIPES

THE REWARD:

\$25 FOR EVERY ONE WE PUBLISH!

Deadline is Jan. 31

Please include your name, address, telephone number, co-op name and the recipe category on all submissions. Also provide the number of servings per recipe.

EMAIL: recipes@ieclmagazine.com

(Attach your recipe as a Word document or PDF to your email message.)

MAIL: Recipes

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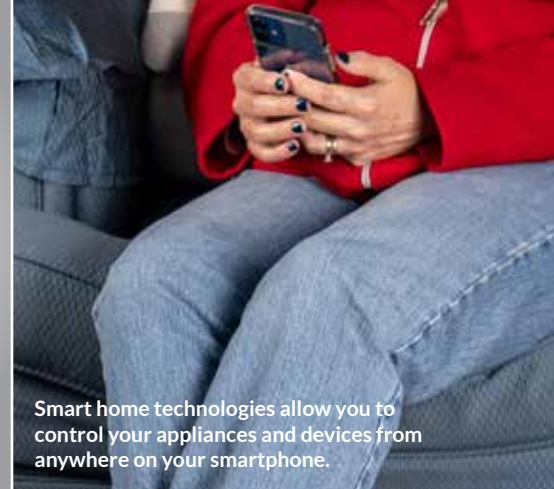
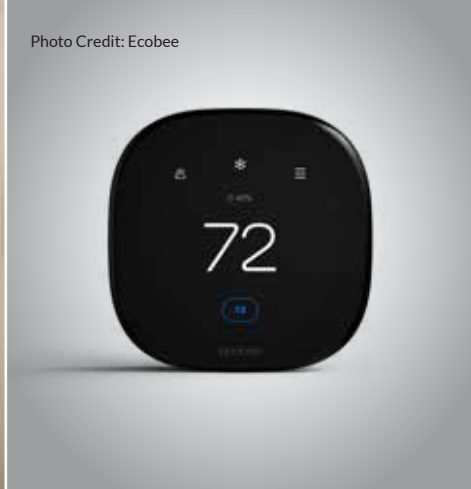
NEW YEAR, SMARTER HOME

BY MIRANDA BOUTELLE





Smart window coverings, such as these Serena Smart Roller Shades, can help save energy in the winter and summer with app capabilities and preset schedules.



Smart home technologies allow you to control your appliances and devices from anywhere on your smartphone.

You've probably heard the term "smart home" a lot in recent years. If you're curious about what makes a home smart, how it can boost energy efficiency and help you save money, you've come to the right place.

"Smart" was originally an acronym for self-monitoring analysis and reporting technology. It refers to technology that can be programmed for automation or controlled remotely using Bluetooth or Wi-Fi from a smartphone app or online. A smart home is one with automated control of appliances and systems, such as lighting fixtures and heating and cooling systems.

There are multiple reasons people choose to automate their homes, including convenience, energy efficiency and security. Just because a product is smart doesn't mean it's energy efficient. Added connectivity, lights and touchscreens can actually increase your energy use. Always look for the ENERGY STAR® logo when shopping, which certifies the products meet standards for energy efficiency.

Energy savings typically come from automating the systems, devices and appliances in your home to use less energy or use energy when it costs less. Here are a few ways you can start implementing smart technology at home.

Smart upgrades for the entire home

Because heating and cooling account for the most energy use in a home, these systems are the best place to look for energy savings.

Smart thermostats offer features and functionality that can help you

save energy and money without thinking about it, including learning preferences and automatically setting temperatures. Geofencing is a feature that uses your phone's location to gauge your distance from home and adjusts the temperature accordingly.

Smart thermostats also let you control the thermostat from anywhere with an internet connection, and automatic software updates use new algorithms to maximize energy savings. Features vary by product, so be sure to choose one that's right for you.

Smart window coverings are increasing in popularity and availability. They can help save energy both in the winter and summer by operating based on the temperature of the room or a preset schedule.

Smart lighting can help you remotely control lights in your home based on occupancy or a preset schedule. Lighting also can be paired with home security systems.

You can use smart outlets and power strips to control devices from outside the home or manage use based on load. For example, you can plug your computer and devices into a load-sensing power strip that turns off peripheral devices, such as monitors and printers, when your computer is not in use.

Smart streaming for the living room

Many people use Wi-Fi to stream TV shows and movies. Smart TVs with built-in streaming functionality offer the most efficient way to stream content. If your TV cannot connect to the internet for streaming, opt for

a streaming media player, such as Roku or Apple TV. They use 15 times less energy than a gaming console to stream the same shows and movies.

Save on suds in the laundry room

Smart washing machines can be scheduled for off-peak energy times (when people in your community use less energy), which is helpful if your electric rate is based on the time of day energy is used. Smart clothes dryers can shut off automatically when your clothes are dry.

Smart savings in the kitchen

There are many options for smart appliances in the heart of the home. Smart refrigerators offer energy-saving features, such as notifications when the door is left open. Some models have digital screens that show the fridge's contents to keep you from opening the door.

Smart ovens let you preheat when you are on your way home or check if you forgot to turn off the oven when you are away. Toasters, range hoods, microwaves and countertop ice makers are among the growing list of additional smart kitchen gadgets available.

More smart home technologies are on the horizon, bringing more ways to operate the various systems, devices and appliances in your home. As you think about ways to make your home smarter, remember to look for products that use the same smart home apps, which will make these new technologies even easier to manage.

Miranda Boutelle writes on energy efficiency topics for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

CHARGING HABITS TO EXTEND BATTERY LIFE

BY PAUL WESSLUND

Many of us are so connected to our phones, tablets and laptops that we panic when the battery nears the dreaded 0% mark. We want our device batteries to perform well for as long as possible. If you ever fret over your devices' power levels, here are a few tips on striking the right balance between battery health and how you work and play.

1 Keep your battery about 40% to 80% charged.

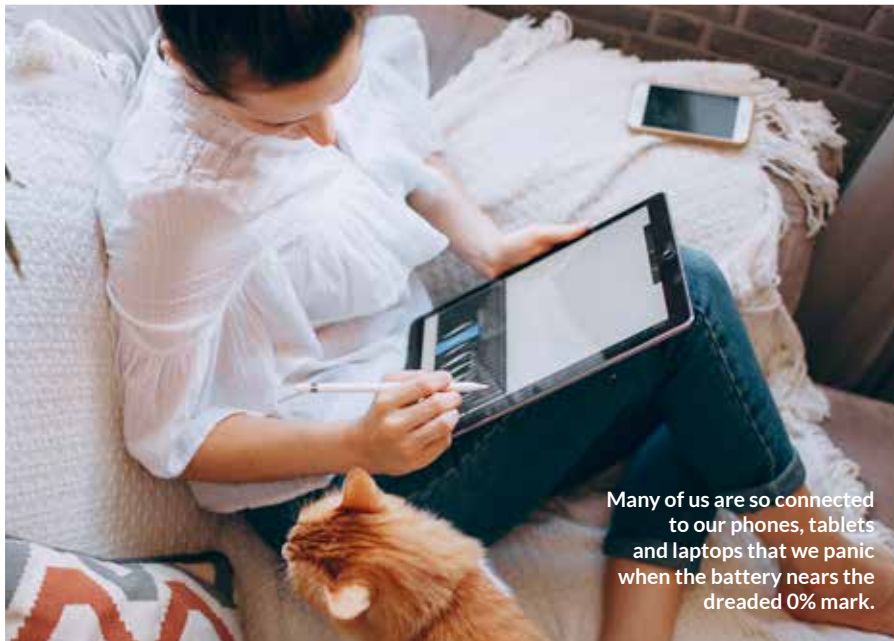
There's a lot of reasonable advice around the internet to keep your phone charged between 20% and 80% or between 40% and 80%. To understand those recommendations, it helps to know how rechargeable batteries work.

Rechargeable batteries work by containing two different materials that produce electricity when particles flow from one to the other. They flow in the other direction when being recharged. That process will degrade any battery over time. Keeping both sides of the battery in balance, with the device charged at about 50%, will put the least stress on the battery to make it last longer.

But that's unrealistic because no one is going to keep their phone half-charged all the time. So, experts try to make it easier by recommending 20% to 80% or 40% to 80% ranges. Apple devices offer even more flexibility, pointing out that modern rechargeable batteries are designed to last for years under a variety of ways you use them.

2 Overnight charging can add stress to some batteries.

Charging your device up to 100% or letting it drain to 0% until it shuts down does put extra stress on the battery and can shorten its life. That's why charging your devices occasionally throughout the day can make sense rather than keeping them plugged in while you sleep.

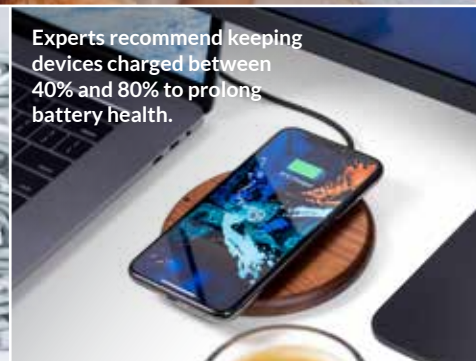


Many of us are so connected to our phones, tablets and laptops that we panic when the battery nears the dreaded 0% mark.

Charging your device up to 100% or letting it drain to 0% until it shuts down puts extra stress on the battery and can shorten its life.



Experts recommend keeping devices charged between 40% and 80% to prolong battery health.



3 Keep it cool, but not cold.

One absolute in battery care is not to let your device get warmer than 95 degrees. Keep it out of the sun, and never leave it in a hot vehicle. If the device does get hot, don't go to the other extreme and put it in the freezer. Just place it in the shade or take the cover off for a while.

4 Use less power.

It sounds simple, but one of the easiest ways to put less stress on the battery is to use less power. You can close energy-draining apps and functions when you're not using them, and you can activate energy-saving settings like putting the device to sleep sooner. Another easy way to reduce battery use is to activate "airplane

mode" now and then. You may be inconvenienced by a temporary pause on receiving emails or phone calls, but it might help you focus on that movie you're watching, the trail you're hiking or the conversation with your dinner companions.

If you're the kind of person who likes to turn in their electronics every couple of years for the latest versions, these recommendations likely won't apply. But if you want your devices to last longer, these suggestions can help prolong battery life.

Paul Wesslund writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

HOW ELECTRIC VEHICLES IMPACT THE GRID

BY KATHERINE LOVING

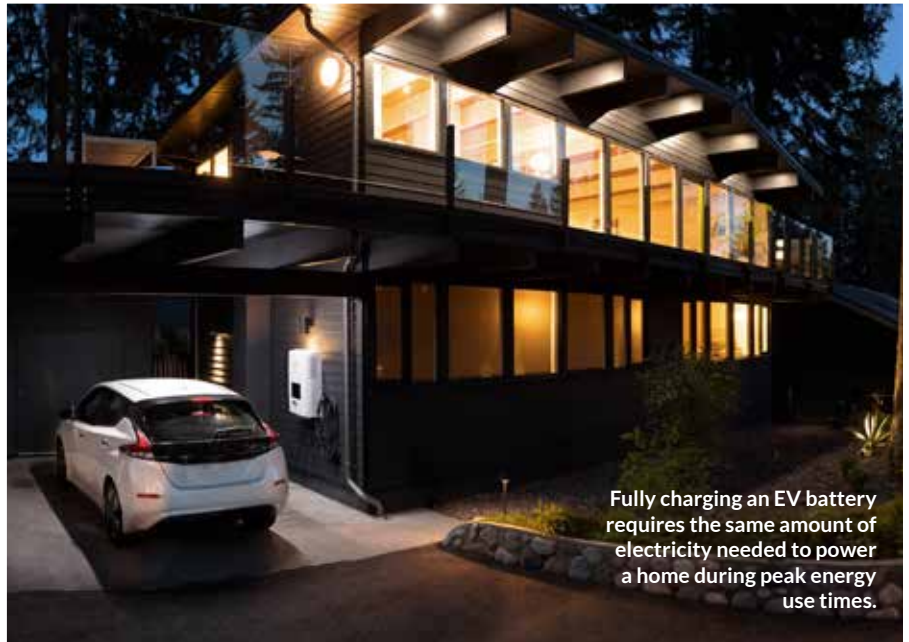
There was a record increase in electric vehicle (EV) sales last year, and experts predict that by 2035, many major vehicle manufacturers will only produce electric models. With this increase comes the need for more electricity to power EVs.

A 2021 Department of Energy study showed that increased electrification, or replacement of direct fossil fuel use with electricity, would account for a 38% increase in electricity demand by 2050 – and EVs will play a major role in this increased electrification. These shifts will significantly impact the nation's grid, which means power supply and grid infrastructure must be carefully planned to accommodate the increased need for electricity.

The realities of EV charging

EV charging presents new challenges in maintaining the electric grid. Fully charging an EV battery requires the same amount of electricity needed to power a home during peak energy use times. However, EV charging is a concentrated pull of energy over an extended period, which can add stress to the local power grid by increasing the amount of electricity a utility has to provide. Additionally, the neighborhood transformer needs adequate capacity to handle the increased load. EV charging can shorten the lifespan of transformers by straining and overloading their capacity if they are not matched to a neighborhood's energy needs.

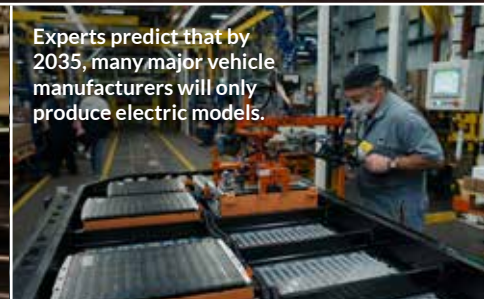
Electric cooperatives are currently identifying ways to manage this new pattern of electricity use, though exact strategies will vary based on each utility's unique needs. Analyzing energy load patterns or identifying where and when the local grid has spikes in demand can provide electric co-ops with data on where to place higher-capacity transformers. This analysis can also provide a picture of overall energy use and patterns to help forecast energy consumption for the



Fully charging an EV battery requires the same amount of electricity needed to power a home during peak energy use times.



Last year saw a record increase in EV sales.



Experts predict that by 2035, many major vehicle manufacturers will only produce electric models.

future. Planning system maintenance and upgrades are also part of that long-range forecasting; however, this has been recently complicated by supply chain issues with transformers, as wait times are upward of one year.

Coordinating helps ease demand

EV owners can play a role in reducing energy costs and system stress associated with charging. Check with your local electric co-op to see if they offer an EV charging rate. Typically, an EV rate incentivizes charging during the night when electricity demand and wholesale energy rates are lower. Charging at night is also a great way to ease demand in your neighborhood, even without a special EV rate.

Another potential change on the horizon is a new energy peak time. EV drivers that plug in to charge as soon

as they return home from work would create even more electricity demand during this busy time of day. But if EV drivers use a timer to schedule charging at night, the electricity demand could be spread over a more extended period to reduce stress on the grid. This would be especially beneficial for neighborhoods with multiple EV drivers.

EVs are only expected to increase in number. Electric co-ops and EV owners both have roles to play in accommodating increased demand. If you own an EV, let your electric co-op know so they can better plan energy demand for you and your neighbors.

Katherine Loving writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

Photo credit: Ford

HOW TO SAFELY USE A GENERATOR

Before using a portable generator, it's essential to understand the potential dangers associated with using them, such as their production of carbon monoxide (CO). CO is an odorless, colorless and tasteless poisonous gas that is called the "silent killer" because it is virtually undetectable without the use of technology like CO alarms. Follow these tips when using a generator.

- **Read and follow all manufacturer operating instructions to properly ground the generator.** Be sure you understand the directions before hooking up the generator.
- **A generator is a temporary power source.** It should never be used as a permanent solution.
- **Maintain adequate ventilation because generators emit CO.** It's against fire code to operate a generator in your home, garage or other enclosed building. Place it in a dry location outdoors. The Consumer Product Safety Commission recommends generators be positioned at least 20 feet from doors, windows and vents to prevent CO from entering the home.
- **Never plug a portable electric generator into a wall outlet or connect directly to a home's wiring.** This can energize utility power lines and injure you or others working nearby. Electrical back feed can also damage the generator and home electrical equipment.
- **Turn off the generator and allow cooling before refueling.** Gasoline and its vapors may ignite if they come in contact with hot components or an electric spark. Store fuel in a properly designed container in a secure location away from the generator or other fuel-burning appliances, such as water heaters. Always have a fully charged, approved fire extinguisher located nearby.



Photo: Honda

- **Protect your appliances.** Turn off or disconnect all appliances and lights before you begin operating the portable generator. Once the generator is running, turn your appliances and lights on one at a time to avoid overloading the unit. Remember, generators are for temporary usage, so prioritize your needs.
- **Generators pose electrical risks, especially when operated in wet conditions.** Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain under it. Make sure your hands are dry before touching the generator.
- **Keep children and pets away from portable generators at all times.** Many generator components are hot enough to burn you during operation.
- **Use proper extension cords.** Use only safety-tested, shop-type electrical cords designed and rated for heavier, outdoor use to connect appliances. Many generators are equipped with twist-lock connects to reduce the chance of accidental disconnections due to vibrations.
- **Shut down the generator properly.** Before shutting down a generator, turn off and unplug all appliances and equipment being powered by the generator.
- **Remember maintenance between uses.** Drain the gasoline from the generator while it is being stored. It's also a good idea to inspect the fuel and oil filters, spark plug, oil level and fuel quality, and to start the generator on a regular basis before an emergency situation happens.

For more information, visit Safe Electricity at safeelectricity.org

HOW TO LIVE TO BE 115

BY DARCY DOUGHERTY MAULSBY

Ever get into one of those conversations where you think, “How did that THAT topic come up?”

It happened during a luncheon at the 2022 statewide rural electric cooperative (REC) annual meeting in Des Moines. As we finished our salad, the conversation turned to cigarettes, of all things. A gentleman from eastern Iowa mentioned he quit smoking years ago but still craves a cigarette now and then.

He recalled the cigarette machine in the lunchroom at the American Institute of Business (AIB) in Des Moines when he was a student there in the 1970s. Those cigarettes were \$0.50 a pack, higher than the typical \$0.35 or \$0.40 at local stores. But hey, they were handy. AIB even placed ashtrays outside the classrooms for extra convenience.

While I’ve never been a smoker, I chimed in with a memory from the 1991 Iowa REC Youth Tour. As we flew to Washington, D.C., I remember how one of the livelier participants got busted for messing with the ashtrays in the armrests.

The former smoker commented that when he flew in years past, he was seated in the smoking section, which was usually in the back six or so rows. (Not sure how that kept the smoke away from the other passengers. Go figure.)

“It seemed like everyone smoked back then,” added another gentleman at our lunch table. As everyone nodded in agreement, the conversation turned to health and longevity as we enjoyed fruit pie for dessert. The former smoker recalled a hard-working local contractor in his area who smoked a pack of cigarettes a day and drank a fifth of whiskey for good measure. He lived to be about 93 years old.

Wise words from a supercentenarian

I mentioned I’m from Lake City, the



Darcy Dougherty Maulsby with Bessie Hendricks of Lake City at her 110th birthday party. Bessie turned 115 in November.

same hometown of the oldest person in America and the fourth oldest living person in the world – Bessie Hendricks. Bessie and I share a Nov. 7 birthday. Bessie was born in 1907 and turned 115 this past November. Her lifetime has seen 21 presidents, the sinking of the Titanic and two world wars.

A few years ago, I visited Shady Oaks Care Center in Lake City to interview Bessie and her adult children. When I asked her secrets to longevity, the retired farm wife credited hard work. She also advised to “stay away from doctors.”

Bessie takes hardly any medication and still enjoys listening to her family

sing “You Are My Sunshine.” (She used to sing along but turning 115 does come with some limitations.) Much to my delight, Bessie also enjoys eating dessert.

If you ask doctors to explain supercentenarians (people who are 110 or older), they’ll usually say a lot of this longevity is due to good genes. While we can’t do much about our genes, we can make a New Year’s resolution to stay positive, just like Bessie.

And for good measure, ditch the cigarettes, but don’t skip dessert.

Darcy Dougherty Maulsby lives near her family’s Century Farm northwest of Lake City. Visit her at www.darcymaulsby.com.

Visit our website at www.ieclmagazine.com

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