

JANUARY 2025

# iowa

ELECTRIC COOPERATIVE LIVING

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shows adequate resources**

**How electricity demand  
impacts co-ops**

**Recipes: Bread winners**

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ON THE COVER

Special thanks to Cindi Miller, a Guthrie County REC member-consumer, for supplying this month's cover image. Submit high-resolution photos for consideration to editor@ieclmagazine.com. You could receive \$100!

# A GRATEFUL FAREWELL: REFLECTING ON MY STATEWIDE SERVICE

BY KENNY VANDENBERG



Last month, the Iowa Association of Electric Cooperatives (IAEC) held its 2024 Annual Meeting in West Des Moines, with the theme of “Powering Lives, Empowering Communities.”

With a statewide leadership transition in 2024, it was a year of new beginnings at IAEC. But amidst change, we remain steadfast in our cooperative mission to help Iowa’s electric cooperatives power lives and empower communities every day.

The annual meeting was a bittersweet time for me as it signaled the end of my six-year tenure on the IAEC board, where I most recently served as board president. It has been an honor to represent the electric cooperatives of District 1 on the statewide board, and I found myself reflecting on the many things that our statewide trade association has accomplished in the past six years, including:

- Keeping safety as our top priority, with fiscal responsibility also a priority.
- Seeing great participation in IAEC’s educational and safety training opportunities for co-op staff and directors.
- Witnessing cooperation among cooperatives and restoring power in the wake of two derechos.
- Meeting the COVID pandemic challenges head on and creating more ways to connect with Iowa’s electric cooperatives virtually and digitally.
- Launching our first statewide Shine the Light contest in 2021 to celebrate our cooperative commitment to community.
- Introducing our Cooperative Leadership in Iowa Program in 2023 to equip emerging leaders at Iowa’s electric cooperatives.

- Sending two crews of volunteer linemen to rural Guatemala (in 2019 and 2024) to bring the advantages of electricity to underserved areas.
- Maintaining a credible reputation while defending local co-op governance with legislators and regulators.
- Welcoming Leslie Kaufman as IAEC’s new executive vice president and general manager in July 2024.

None of these accomplishments would have happened without the foresight of the IAEC board along with support from Iowa’s electric co-ops and the statewide staff.

## The power in stepping outside of one’s comfort zone

I want to thank the current board members as well as past board members who have helped me along the way over the past six years. There are not enough words to thank the IAEC staff for their help, knowledge and willingness to go above and beyond.

Serving on the IAEC board was the furthest thing from my mind all those years ago, but a few individuals challenged me to step out of my comfort zone and expand my knowledge of the electric industry. If it weren’t for their encouragement, I wouldn’t be here looking back on what was accomplished. I owe these folks a huge thank you for believing in me and giving me a little push.

So, as I pass the baton to new statewide directors at the start of a new year, I challenge each of you to step out of your comfort zone, try new things and get involved in your community. You will be amazed at what you will learn and the lifelong friendships that will develop.

I wish you and your family a blessed year!

*Kenny Vandenberg is the outgoing board president for the Iowa Association of Electric Cooperatives and currently serves as board president of Chariton Valley Electric Cooperative.*

## EDITOR’S CHOICE CONTEST

### WIN A STAINLESS STEEL BREAD MACHINE!

The KBS stainless steel smart bread machine has 17 settings for making bread, jam, yogurt, cake, pizza dough and more! Plus, it features an automatic fruit and nut dispenser. It bakes up to a 2-pound loaf, with three crust settings in light, medium and dark. An ultra-quiet 710-watt motor makes kneading quick and even, strong and durable, so the dough is soft and elastic. A unique ceramic bread pan uses safe nanotechnology to achieve a nonstick effect.



**ENTER ONLINE BY JAN. 31!**

#### Visit our website and win!

Enter this month’s contest by visiting [www.ieclmagazine.com](http://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 iRobot Roomba from the November issue was **Edward Mosbach**, a **Prairie Energy Cooperative** member-consumer.

# WINTER RELIABILITY FORECAST SHOWS ADEQUATE RESOURCES

BY MICHAEL GEERDES



In November, the North American Electric Reliability Corporation (NERC) released a report outlining its 2024/2025 Winter Reliability Assessment.

Reliability Assessment.

In the report, Southwest Power Pool (SPP), our regional grid operator, is noted to have sufficient electric generation capacity to meet expected demand under normal winter operating conditions.

Electric utilities nationwide are members of one of nine regional transmission organizations (RTOs) and independent system operators (ISOs), also called power pools. These entities are federally regulated by the Federal Energy Regulatory Commission

(FERC) and work on a regional scale to coordinate, control and monitor supply and demand on the electric grid. RTOs do not own the power grid, but they work as “air-traffic controllers” of the grid to ensure reliable power supplies, adequate transmission infrastructure, and “day-ahead” electric market coordination of wholesale electricity prices on behalf of their members.

While SPP is not listing reliability as being at a high-risk level for the upcoming winter season, our industry continues to navigate significant long-term challenges in maintaining a resilient and reliable electric grid.

### A changing energy landscape

We’re seeing unprecedented changes in how electricity is generated and consumed across our region. As society becomes increasingly electrified and we see rapid growth in sectors like data centers, demand for electricity is growing at a historic pace.

This presents both opportunities and challenges. While the SPP region has made substantial progress in bolstering its transmission infrastructure and adding renewable energy resources such as wind and solar, the variable nature of these resources requires careful planning to maintain reliability. Additionally, SPP has approved an increase in its required planning reserve margin.

### What’s a planning reserve margin?

SPP, our wholesale power provider Corn Belt Power Cooperative (Corn Belt Power) and Grundy County REC must plan for times of extreme power use. We do that in the form of reserve margins. Reserves are resources that are held back, standing by to provide additional energy when needed. Reserve margins are the amount of unused available generating capability of an electric power system (during peak demand for a utility system) as a percentage of the total capability needed to meet peak demand.



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- District 2: Norbert Boyle
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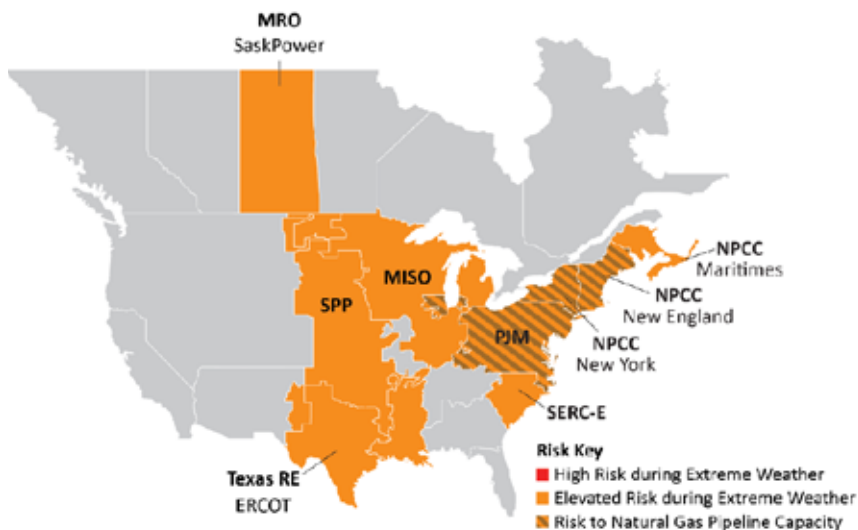


Figure 1: Winter Reliability Risk Area Summary

Seasonal Risk Assessment Summary	
High	Potential for insufficient operating reserves in normal peak conditions
Elevated	Potential for insufficient operating reserves in above-normal conditions
Normal	Sufficient operating reserves expected

Source: NERC (North American Electric Reliability Corporation)

These margins are shrinking in SPP and across the country. Tighter reserve margins mean there's less room for error when we experience unexpected events or emergencies, increasing the risk of forced outages.

We need a diverse mix of power resources to keep the lights on 24/7. That includes having dispatchable generation like coal, natural gas and nuclear, available when renewable resources aren't producing at full capacity. However, many of our traditional generating facilities are being targeted by federal legislation aimed to curb emissions by implementing unproven or unavailable technologies, forcing them to retire before their end of life if they cannot comply with emissions standards.



### Proactive steps to ensure reliability for members

Grundy County REC is taking decisive action to maintain grid reliability for our members through several key initiatives:

- 1 Advocating for reliability and affordability:** Electric cooperatives across the country are owned by you, the members we serve. This means that our cooperative works together with other electric cooperatives to educate lawmakers and advocate on behalf of our members to ensure that reliable power is also competitively priced.
- 2 Resource diversification:** Nationally, there is increasing reliance on renewable energy sources, and at the same time, we're seeing fossil fuel plants taken offline, often ahead of schedule. Additionally, we're seeing more pressure on the electric grid due to the ever-present severe weather events and historic rising demand, as we begin to electrify more sectors of our economy in the form of electric vehicles, data storage and cryptocurrency. Grundy County REC believes and advocates for an "all-of-the-above" energy approach. This approach promotes the idea

that the U.S. relies on a reliable and sustainable fuel supply. There is great value in maintaining a diverse mix of fuel sources – fossil fuels and renewables – to ensure reliability and resiliency and meet the growing demand for electricity.

- 3 Grid infrastructure:** As a member of Corn Belt Power, we pool resources and expertise to invest in technology, security and infrastructure to deliver reliable and cost-effective power. Our operations are dedicated to strengthening our electric infrastructure through targeted upgrades and new construction projects, which will enhance regional connectivity and resilience.
- 4 Emergency preparedness:** We work closely with SPP and neighboring utilities to protect our members from potential energy shortages and price spikes associated with having to purchase more power when demand is elevated. By having detailed response plans in place, we can take steps to reduce electricity demand during critical periods – helping avoid the need to purchase expensive power from the market when prices are at their highest. This coordinated approach helps


keep your electricity both reliable and affordable.

- 5 Regional coordination:** We actively participate in SPP's reliability initiatives and maintain close coordination with neighboring utilities to support regional grid stability. By working to prepare for and respond to energy shortfalls, we can follow protocols to reduce electric demand and prevent us from having to purchase excess energy from the markets or avoid the need to interrupt power supply.

Our wholesale power provider, Corn Belt Power works closely with SPP and other regional partners to address these long-term challenges while maintaining reliable and affordable electric service for our member-consumers. As we dedicate ourselves to powering your homes and communities throughout the winter season, we are committed to doing everything we can to maintain your trust and find solutions to keep your power reliable and your rates stable.

Please don't hesitate to contact the cooperative at 319-824-5251 with any questions.

*Michael Geerdes is the general manager of Grundy County REC.*



# THE EVER-CHANGING, FAST-GROWING DEMAND FOR ELECTRICITY

BY SCOTT FLOOD

When rural electric cooperatives first strung power lines from farm to farm less than a century ago, most members had but a handful of light bulbs to power. With time, they added appliances like refrigerators, but we're sure they couldn't begin to imagine the number and variety of electrical devices in today's homes and garages.

Across the U.S., people use a growing amount of electricity at work, home, and with the growth of electric vehicles (EVs), even on the road.

The demand for electricity increased by 2.5% in 2024 and is expected to grow by 3.2% this year. That was after co-ops saw a 4.8% increase in

2022. Through 2029, the nation's peak demand is projected to grow by 38 gigawatts. That would be like adding another California-sized state to our nation's power grid.

### Factors driving demand

The rapid growth of artificial intelligence (AI) is driving the development of massive data center facilities, often placed in electric co-op service territories to take advantage of inexpensive land and fewer neighbors to complain. By 2022, these facilities accounted for 2.5% of the nation's consumption of electricity – and by 2030, they'll use 7.5% of all electric power.

Data centers and facilities like warehouses require a large, steady supply of electricity 24 hours a day. That means the electric co-ops supplying them can't rely on intermittent sources of electricity, such as solar or wind energy, to handle the additional load. Instead, they need more of what's known as baseload or always-available power, much of which is currently generated by burning fossil fuels. The more we depend on technology, the more we'll need reliable baseload generation.

### Baseload power is essential

Yet that's a problem because at the same time Americans are using more

electricity, power providers are being forced to shut down reliable sources of baseload power such as coal and nuclear power plants. Many large coal plants have been converted to use cleaner-burning natural gas, but others have been deemed too costly to convert and are prematurely being shut down. More than 110 gigawatts of always-available generation – enough to power about 35 million homes – is forecast to retire by 2033.

The U.S. Energy Information Administration’s forecast expects coal-fired generation to drop to half of today’s levels by 2030. Renewable energy will capture a growing share of the supply, but as noted, much renewable energy is not reliable enough to provide baseload power.

**Demand will steadily increase**  
As electricity powers a growing share of life’s tools and conveniences, overall demand is expected to continue its steady growth through 2050. A great example is the efficiency of electric heat pumps. Federal and other subsidies and tax advantages are powering significant growth in their share of the home heating market.

In other words, at the same time everyone is using more electricity than ever, the supply of the most reliable source is drying up. Add in the uncertainty created by public policy debates around energy and climate change, and you can begin to understand why 19 states face a high risk of rolling blackouts between now and 2028.

The energy industry studies demand closely because construction of all types of generation is costly and lengthy – often taking more than a decade from groundbreaking to entering service.

As renewables become more efficient and cheaper to produce, their share of the power mix will only continue to grow. Someday soon, battery technology may reach the point where large-scale storage of renewable generation becomes possible, but until then, we’ll need more of those always-available power sources.

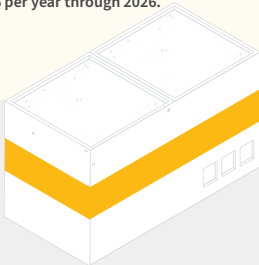
*Scott Flood writes on a variety of energy-related topics for the National Rural Electric Cooperative Association.*

# Soaring Demand

After decades of flat or declining electricity demand, the U.S. is in the midst of a boom in power use. Recent government data shows that power consumption nationwide is set to increase by at least 38 gigawatts (GW) between now and 2028. This trend would ordinarily be great news for the power industry. But government policies aimed at shutting down fossil-fuel-based generation and years-long delays in permitting and siting for new transmission lines are turning this power boom into a capacity crisis. Here are the primary demand drivers:

## Electrification

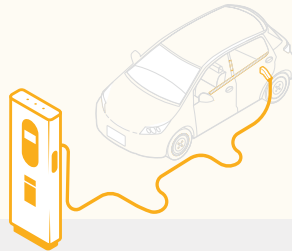
Electric vehicle adoption, electrification of home heating and industrial electrification are expected to increase overall U.S. energy consumption by 1% per year through 2026.



65%

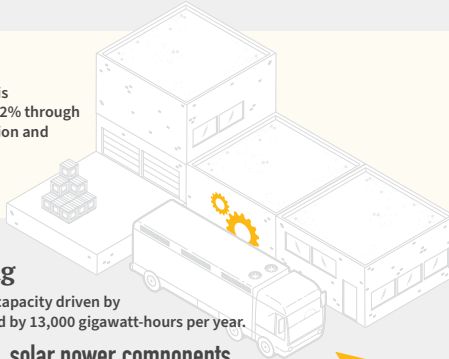
## Data Centers

Driven by explosions in artificial intelligence, cryptocurrency and cloud computing, total U.S. data center load is projected to increase by 65% by 2050.



## Economic Growth

Residential power consumption is expected to increase by 14% to 22% through 2050 due to increases in population and steady economic growth.



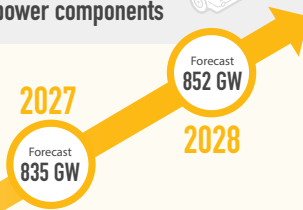
## Manufacturing Growth/Onshoring

New, expanding and “onshored/reshored” manufacturing capacity driven by federal incentives is expected to increase industrial demand by 13,000 gigawatt-hours per year.

**Key products:** EVs, batteries, semiconductors, solar power components

## Total Demand

Analysts predicted in 2023 that U.S. peak demand will increase by at least 38 GW over the next five years, nearly double the growth rate predicted in 2022.



# BREAD WINNERS



## ORANGE BREAD

- 1 tablespoon orange zest
- juice from 1 orange
- water
- 2 tablespoons shortening
- 1 cup sugar
- 1 teaspoon vanilla
- 1 egg
- 2 cups flour
- ¼ teaspoon salt
- 1 teaspoon baking powder
- ½ teaspoon baking soda
- 1 cup raisins
- ½ cup chopped walnuts, optional

Scrape orange rind to make zest, and squeeze juice from orange adding enough water to make 1 cup of liquid. Cream shortening, sugar, vanilla and egg. Add juice and remaining ingredients. Mix thoroughly. Bake in greased and floured loaf pan at 350 degrees F for 1 hour. *Yields 12 slices*

Carol Reeves • Sheldon  
North West Rural Electric Cooperative

## QUICK CARAMEL ROLLS

- 2 8-ounce cans refrigerated crescent rolls
- ½ cup butter
- 1 cup brown sugar
- 2 tablespoons water

Leaving crescent rolls in a roll, cut each can into 12 pieces. Place four across and six down in a greased 9x13-inch pan. Mix butter, brown sugar and water. Cook in microwave until it reaches a boil, stirring every minute – do not overcook! Pour mixture over crescent rolls. Bake at 350 degrees F for 15-20 minutes or until golden brown and the edges are bubbly. Invert onto a serving platter.

Steph Messner • Rock Rapids  
Lyon Rural Electric Cooperative

## QUICK YEAST BREAD

- 1¼ cups warm milk
- ½ cup butter, melted
- 1 egg
- 2 tablespoons sugar
- 2 tablespoons honey
- 4 cups flour
- ¼ teaspoon salt
- 1 tablespoon quick yeast

Mix milk, butter, egg, sugar and honey. In a separate bowl, mix flour, salt and yeast. Mix dry ingredients together with liquid ingredients. Knead and then place in a warm place until doubled in size. Knead again for 5 minutes. Divide into two and place in greased small loaf pans to rise for 1 hour. Bake at 350 degrees F for 30 minutes, until brown. *Serves 4-6*

Alice Draper • Eldora  
Grundy County Rural Electric Cooperative

## PISTACHIO BREAD

- 1 yellow cake mix
- 1 3-ounce box instant pistachio pudding
- 1 cup sour cream
- ¼ cup oil
- ¼ cup water
- 4 eggs, beaten
- ¼ cup sugar
- ½ cup nuts
- 1 teaspoon cinnamon

Mix cake mix, pudding, sour cream, oil, water and eggs until smooth. Pour half of batter into two greased bread pans. Mix sugar, nuts and cinnamon. Pour mixture on top of batter. Cover with remaining batter. Bake at 350 degrees F for 45 minutes.

Kim Swanson • Lockridge  
Access Energy Cooperative



## CHALLAH

- 1 cup warm water
- 2¼ teaspoons active dry yeast
- 1 teaspoon granulated white sugar
- 2 large eggs
- ½ cup honey
- 6 tablespoons grapeseed oil
- 4½ cups all-purpose flour
- ½ teaspoon salt
- 2 large egg yolks
- 1 teaspoon water

In a large bowl, whisk together the warm water, yeast and granulated sugar. Set aside for 5-10 minutes, or until foamy. Add the eggs, honey and oil. Whisk well. Add mixture to a stand mixer fitted with a dough hook. Add the flour ½ cup at a time and the salt while mixing on a medium-high speed. Mix for 5-7 minutes, or until a very smooth dough forms. If using a hand mixer fitted with a dough hook, combine the ingredients until a shaggy dough forms, about 2 minutes on medium-low speed, then remove from mixing bowl and knead by hand for about 10 minutes. Grease another large bowl with oil. Place the dough inside the bowl, cover with plastic wrap. Proof for about 1 hour. Lightly flour a clean surface and rolling pin. Place the dough on the surface and punch it down four times with your hands. Cut the dough into six equal dough balls. Using a rolling pin, roll out six long pieces, then roll them into strands with your hands. Use three strands to make each braided loaf. Place the loaves on a baking sheet lined with parchment paper, cover with plastic wrap and proof for one hour. In a small bowl, combine the egg yolks and water with a fork. Remove the plastic wrap from the loaves and brush them with egg wash. Bake at 325 degrees F for 15 minutes. Raise oven temperature to 425 degrees F and bake for 5 minutes. Remove from oven and cool on a wire rack. *Yields 2 loaves*

Addilyne Switzer • Beaman  
Grundy County Rural Electric Cooperative

## KILLARNEY IRISH BROWN BREAD

- 3¼ cups wheat flour
- ¾ cup white flour
- 2 teaspoons baking soda
- 2 teaspoons salt
- 2½ cups buttermilk
- 1 tablespoon golden syrup (or honey)
- 4 teaspoons butter, melted

Mix the flours, soda and salt into a bowl. Make a well in the center and add the buttermilk, golden syrup and butter. Use a large spoon to mix gently, just until dry ingredients are incorporated. Shape into a round on a baking sheet that has been lined with waxed paper. Cut a cross in the top with a sharp knife. Bake at 400 degrees F for 40 minutes, until the top is slightly cracked and crusty. To check if done, tip the loaf and tap the base – it should sound hollow. Cool on a wire rack. *Serves 12*

Chris Daniels • Casey  
Guthrie County Rural Electric Cooperative Association

Visit [www.ieclmagazine.com](http://www.ieclmagazine.com) and search our online archive of hundreds of recipes in various categories.



## CRANBERRY BRAN BREAD

- 1½ cups bran flakes
- 2 cups flour\*
- 1½ teaspoons baking powder
- ½ teaspoon soda
- ½ teaspoon salt
- 1 cup sugar
- ½ cup nuts, chopped
- 1 egg
- 2 tablespoons vegetable oil
- 1 cup plus 2 teaspoons orange juice, divided
- 1 cup cranberries, halved
- 2 cups powdered sugar

Mix bran flakes, flour, baking powder, soda, salt, sugar, nuts, egg, vegetable oil, 1 cup orange juice and cranberries. You can substitute cranberries for ½ cup cranberries and ½ cup pomegranates. Bake in a greased loaf pan at 250 degrees F for 1 hour or until done. Mix 2 teaspoons orange juice with powdered sugar and drizzle over baked loaf.

*\*An alternative to 2 cups white flour would be ¼ cup brown rice flour, ½ cup milled flax seed, ½ cup almond flour, ¼ cup soy flour and ½ cup Nestrum Honey and Wheat cereal.*

Betty Sorden • Webster  
T.I.P. Rural Electric Cooperative

WANTED:

## SPRING-INSPIRED RECIPES

THE REWARD:  
\$25 FOR EVERY  
ONE WE PUBLISH!

**Deadline is Jan. 31**  
Submit recipes that use fresh, seasonal ingredients such as asparagus, spring greens, rhubarb and more! Please include your name, address, telephone number, co-op name, recipe category and number of servings on all submissions.



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# IOWA'S ELECTRIC COOPERATIVES: ENSURING AFFORDABLE AND RELIABLE POWER

*Editor's Note: This article is Part 2 of a two-part series showcasing the impact of Iowa's electric cooperatives throughout all the state's 99 counties.*

Iowa's electric cooperatives have a rich history of local ownership and member-driven governance, playing a pivotal role in bringing electricity to rural communities.

In the 1920s, while urban areas had widespread access to electricity, approximately 90% of rural residents lived without it. This lack of electrification made farm life arduous, with no indoor plumbing, reliable refrigeration, or safe lighting and heating. Investor-owned utilities at the time deemed it unprofitable to extend power lines to sparsely populated rural areas.

Recognizing this disparity, President Franklin D. Roosevelt established the Rural Electrification Administration (REA) in 1935 through Executive Order 7037 as part of his New Deal initiatives. The following year, Congress passed the Rural Electrification Act of 1936, providing federal loans to support the installation of electrical distribution systems in rural regions.

These efforts enabled rural communities to form not-for-profit electric cooperatives, facilitating access to affordable and reliable electricity. By 1950, 80% of American farms had electricity, and by 1960, this figure rose to 99%.

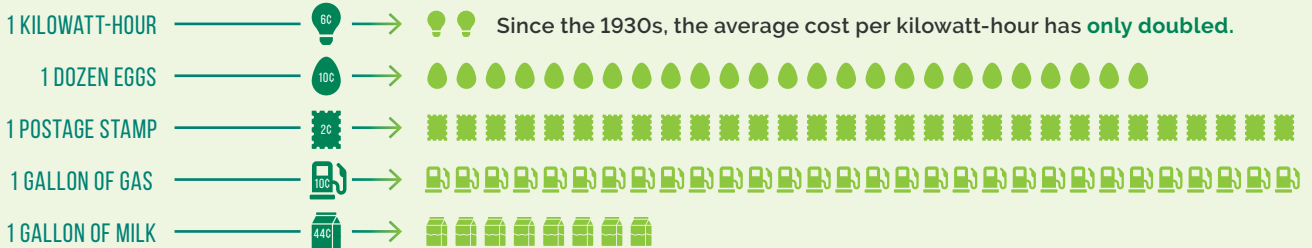
### Doing more with less

Serving predominantly rural areas, Iowa's electric cooperatives manage extensive infrastructure with fewer customers per mile compared to investor-owned utilities. To address this challenge, co-ops structure rates to recover costs and collaborate with organizations like the Hawkeye Insurance Association and the Iowa Association of Electric Cooperatives to achieve economies of scale in supplies, insurance and technology solutions. This collaborative approach helps maintain affordability for members.

## COST COMPARISON:

1930s

TODAY



In Iowa, the average household served by electric cooperatives spends about

**\$5.25 PER DAY FOR ELECTRICITY**

**THAT'S CHEAPER THAN BUYING A SANDWICH OR SPECIALTY COFFEE DRINK!**

The average household served by Iowa's electric cooperatives spends about \$5.25 per day on electricity, highlighting the cost-effectiveness of their services. Co-ops also offer energy efficiency programs, audits, rebates, and incentives to help members use energy wisely and reduce expenses. As member-owned entities, co-ops prioritize cost-based rates over profits, ensuring that financial decisions align with members' best interests.

**Commitment to reliability**

Ensuring reliable electricity is a top priority for Iowa's electric cooperatives. They conduct regular maintenance, infrastructure inspections and adhere to proactive vegetation management plans to minimize outages.

During the past 10 years, Iowa's electric cooperatives have kept the lights on 99.96% of the time despite

blizzards, ice storms, derechos, tornadoes or other extreme weather events. The average member served by an Iowa electric co-op experiences one outage per year, lasting approximately 138 minutes.

If a co-op does experience extensive outages, they work with neighboring co-ops for mutual aid to restore power to members as quickly and safely as possible.

During the past 10 years, Iowa's electric cooperatives have kept the lights on

**99.96% OF THE TIME**

DESPITE BLIZZARDS, ICE STORMS, TORNADOES, DERECHOS OR OTHER EXTREME WEATHER EVENTS.



**Advocating for a balanced energy approach**

A recent threat to reliability comes from misguided federal energy policy, which prioritizes intermittent sources of power like solar and wind over dispatchable sources like coal and natural gas.

Iowa's electric cooperatives believe in a diverse power generation strategy to ensure reliability. Our "all-of-the-above" generation portfolios include dispatchable sources of power because we can control the output and ramp up generation when needed to match sudden increases in electric demand.

Learn more about this issue at [www.IARuralpower.org](http://www.IARuralpower.org).

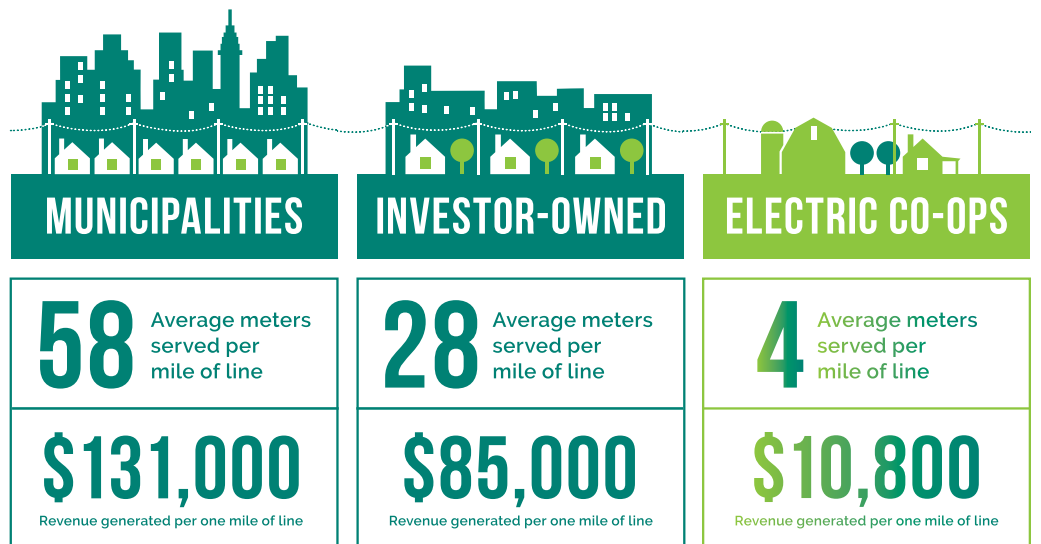
The average Iowa electric co-op member-owner experiences

**1 OUTAGE**

lasting an average of **138 MINUTES** PER YEAR

**A legacy of service**

From their inception, Iowa's electric cooperatives have been instrumental in transforming rural life by providing essential electric services. Their commitment to member-owners, focus on affordability, reliability and community collaboration continue to drive their mission, ensuring that the needs of rural Iowans are met with dedication and innovation.



## CODNER CELEBRATES FOUR YEARS WITH CO-OP



Join us in celebrating Brady Codner, member service advisor, who will be with

Grundy County REC for four years on Jan. 25! Around the office, Brady is known for his “radio host” voice-overs while presenting, his unique sense of humor, and his willingness to help his coworkers and our members. Thank you, Brady, for all your hard work and dedication to the members of Grundy County REC. Congratulations!

### Did you know?

## MEMBER-ONLY YARD LIGHT PROGRAM

Grundy County REC's Yard Light Program can cost members as low as **\$4.50** per month! The best part – Grundy County REC takes care of all maintenance, repairs and replacements, and provides the LED light fixture!

Interested? Contact the office at 319-824-5251 today.



## EXCITING STUDENT OPPORTUNITIES AVAILABLE



### 2025 Youth Tour

Member students in their sophomore, junior or senior year of high school who are interested in history, public service, advocacy or leadership – this opportunity is for you!

Grundy County REC is now accepting applications from members students for a once-in-a-lifetime, all-expense-paid trip to Washington, D.C. The 2025 Youth Tour will be held June 15-21. **The deadline to apply is March 3.**

Learn more or submit an application at [www.grundycountyrecia.com/youth-tour](http://www.grundycountyrecia.com/youth-tour).

### Scholarships

There is one month left to apply for one of four \$1,000 scholarships! These scholarships are for Grundy County REC member students and will go directly to the school of each recipient's choice to assist with college tuition. **The deadline to apply is Feb. 5.**

For more information, visit [www.grundycountyrecia.com/scholarships](http://www.grundycountyrecia.com/scholarships).

## WAYS YOU CAN SERVE

Are you interested in the workings of Grundy County REC or getting more involved? Consider serving as a member of the Nominating Committee or running in director elections.

If you reside in the following districts, you are eligible to serve:

- **District 1** (currently held by Kevin Pruisner)
- **District 5** (currently held by Matt Kopriva)
- **District 7** (currently held by Jason Paper)

At the March 27 regular monthly board meeting, the 2025 Nominating Committee will be appointed. If you are interested in participating or would like to determine in which district you reside, please contact Allyson Miller at 319-824-5251 or [amiller@grundycountyrecia.org](mailto:amiller@grundycountyrecia.org).

**2025 Annual Meeting is Thursday, Sept. 4**

# 6 WAYS TO UNCOVER SAVINGS WITH A DO-IT-YOURSELF ENERGY AUDIT

BY MIRANDA BOUTELLE

A home energy audit may sound daunting, but it can be as easy as creating a checklist of improvements based on what you see around your home.

Here's what you'll need to find opportunities to save energy and money: a flashlight, dust mask, tape measure and cooking thermometer. As you progress through these six steps of an audit, take notes on your phone or a notepad.

## 1 Check the heating and cooling equipment.

Determine the age and efficiency of the equipment by looking up the model number on the nameplate. The average lifespan of HVAC equipment is 10 to 30 years, depending on the type of equipment and how well it's maintained. If your equipment is older, it may be time to budget for an upgrade. Check the filter and replace it if needed.

## 2 Check the envelope of your home, which separates the heated or cooled areas from the exterior, for drafts and air leakage.

Feel around windows and trim for any drafts. Pay special attention to spots where different building materials come together. Check under sinks for gaps around pipes. Seal with weatherstripping, caulk or expanding foam as needed.

## 3 Replace incandescent or compact fluorescent bulbs with LEDs.

LEDs use significantly less energy and last longer than traditional incandescent bulbs.

## 4 Inspect faucets for leaks and make sure aerators and showerheads are high-efficiency models in good condition.

The gallons-per-minute (GPM) ratings should be etched onto them. To reduce wasted energy from using more hot water than



When inspecting your heating and cooling equipment, check the filter and replace it. A dirty furnace filter can cause your system to work harder than necessary, decreasing efficiency and shortening the system's life.



LEDs come in a range of color temperatures. For a warm glow similar to incandescent bulbs, buy bulbs with a color temperature around 2700 Kelvin.

needed, aerators should be 0.5 to 1.5 GPM, and showerheads should be no more than 2 GPM.

## 5 Look in the attic, while wearing a dust mask, to make sure it's insulated.

You may be able to see enough from the access area using a cellphone with the flash on to take pictures. Use the tape measure to check the depth of the insulation. In Iowa, you should have insulation rated at R49-R60 in your attic.

Insulation can become compacted over time. It should be evenly distributed throughout the attic. Loose fill or blown-in insulation should be fluffy and evenly dispersed. Rolled batt insulation should fit tightly together without gaps.

Also, exterior walls should be insulated. If your home is older than the 1960s, the walls are probably not insulated. Homes from the 1960s or 1970s likely need more insulation. Sometimes you can see wall insulation by removing an outlet cover or switch plate and using a flashlight to look for insulation inside the wall cavity. Turn off the power at the electrical panel to avoid the risk of electric shock. Wall insulation can be blown in from the inside or the outside of the home. This is a job for a professional.

Unfinished basements should have insulation on the rim joists, at minimum. This is the area between the top of the foundation and the underside of the home's first-story floor. Use closed-cell spray foam or a combination of rigid foam and spray foam to insulate rim joists. Crawl spaces should have insulation on the underside of the floor between the floor joists. Insulation should be properly supported in contact with the floor with no air gaps. Water pipes and ductwork should also be insulated.

## 6 Check the temperature of your water by running it for three minutes at the faucet closest to your water heater.

Then fill a cup and measure with a cooking thermometer. Hot water should be between 120 and 140 degrees F. You can reduce the temperature on your water heater to reduce energy waste and prevent scalding.

Once your home energy audit is finished, review your findings and start prioritizing home energy efficiency projects. For step-by-step instructions, visit [www.energy.gov/save](http://www.energy.gov/save).

*Miranda Boutelle writes on energy efficiency topics for the National Rural Electric Cooperative Association.*

# UTILITY-SCALE VS. RESIDENTIAL BATTERY STORAGE

BY JENNAH DENNEY

In an ever-changing energy landscape, electric cooperatives are on the cutting edge of delivering reliable, resilient power to the local communities they serve. Co-ops utilize a variety of generation and grid technologies to provide power, including battery energy storage – but not all battery storage systems are the same, and understanding the key differences between each is important. It's also important to recognize that the technology and cost-effectiveness of battery storage options are still being developed.

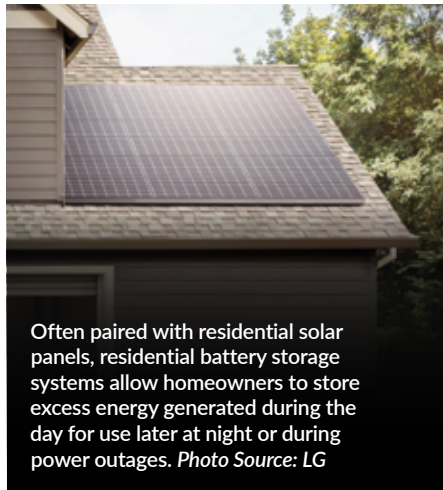
Utility-scale battery systems are designed for large-scale energy storage to support the electric grid, requiring high initial investments but offering significant long-term savings and benefits. In contrast, residential battery systems cater to individual homes, providing more energy independence and savings while still representing a significant investment.

## Utility-scale battery storage

Utility-scale storage systems are large installations designed to store vast amounts of electricity. Typically connected to the grid, these systems can store power generated from both baseload and renewable energy sources, with capacities ranging from several megawatt-hours (MWh) to gigawatt-hours (GWh).

While most battery storage system projects are developed with a primary application in mind, they can also be optimized for multiple applications, which adds significant additional value.

Utility-scale storage systems could play a crucial role in grid stabilization by absorbing excess energy during periods of low electricity demand and releasing it during peak demand, which is particularly



Often paired with residential solar panels, residential battery storage systems allow homeowners to store excess energy generated during the day for use later at night or during power outages. *Photo Source: LG*



Utility-scale battery systems are designed for large-scale energy storage to support the electric grid, requiring high initial investments but offering significant long-term savings and benefits. *Photo Source: Trico*

beneficial in rural areas where demand can fluctuate significantly.

Electric cooperatives can also deploy utility-scale storage systems at electric substations to enhance grid resilience and ensure a steady supply of electricity as needed. In the event of a power outage, utility-scale storage systems can provide backup power to critical infrastructure, such as hospitals and emergency services.

## Residential battery storage

Residential battery storage systems are compact installations designed for individual homes, typically ranging from a few kilowatt-hours (kWh) to tens of kWh in capacity. Often paired with residential solar panels, these smaller systems allow homeowners to store excess energy generated during the day for use later at night or during power outages, providing a level of energy independence.

By utilizing stored energy, homeowners can reduce their energy bills and ensure a steady supply of power, even during grid disruptions and outages, enhancing the resilience of rural households. However, the initial cost of purchasing and

installing a residential storage system can be expensive, which may deter some homeowners.

Electric co-ops are increasingly recognizing the benefits of residential battery storage. These systems not only support grid stability and resilience but also help reduce costs for co-ops and their members. Some co-ops offer energy storage programs and rates, which means homeowners can contribute to a more efficient and reliable energy system. This benefits the entire community.

As electric co-ops navigate the complexities of modern energy supply and battery storage continues to evolve, the strategic deployment of both utility-scale and residential battery energy storage systems can potentially play a transformative role.

By understanding the unique advantages and challenges of each type of system, co-ops and their members can make informed decisions that enhance grid reliability, reduce costs and improve resilience for their communities.

*Jennah Denney writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.*

# FINDING BEAUTY IN THE BROKEN

BY DARCY DOUGHERTY MAULSBY

Time is a funny thing, isn't it? We spend time. We kill time. We lose track of time. We invest time. And yet time keeps passing – something we're keenly aware of at the start of each new year.

Now's the time when many people resolve to start fresh, leaving the past behind. Just think of all the New Year's resolutions that abound. I'm going to eat healthier! I'm going to exercise more! I'm going to spend less time on social media! I'm going to save more money! (Do any of these sound familiar?)

Yet how many of these big goals become big accomplishments? It depends on who you ask. According to the Baylor College of Medicine, 88% of people who set New Year's resolutions fail them within the first two weeks. (Been there, done that.) Psychology articles in magazines like *TIME* and *Forbes* state that only 8% of people stick with their resolutions the entire year.

Maybe we need a different perspective to make the most of the year ahead. Perhaps we all could use fewer resolutions and a little more kintsugi. What's that, you ask? This remarkable Japanese art form finds beauty in the broken. While it dates back hundreds of years, it's a compelling metaphor for modern life.

Kintsugi is built on the idea that in embracing flaws and imperfections, you can create an even stronger, more exquisite piece of art. In kintsugi, the artist fixes broken pottery with gold. Instead of repairing the item like new, this technique highlights the "scars" as a part of the design.

## From broken bowls to books

This concept captured my attention during a "Come to the Quiet" retreat at the Woodlawn Christian Church in Lake City in March 2024. Lorene Knobbe, a Lake City native who lives in Davenport, displayed

a gorgeous kintsugi bowl to help us visualize one of the lessons.

Lorene, a retired elementary school teacher, now provides spiritual direction through her ties to the Benet House Retreat Center at St. Mary Monastery in Rock Island, Illinois. She serves as a facilitator for church retreats and similar events.

As she held her kintsugi bowl on that cold winter afternoon in Lake City, she encouraged everyone to think of your life as a book with chapters and stories. Some of your chapters are filled with fun, exciting stories. Other chapters are dark and painful. None of the chapters can ever be erased, though. All of them will always be part of you – just like the cracks in the kintsugi bowl.

That isn't necessarily comforting, especially if you're struggling to reach New Year's resolutions, or you're overwhelmed by a trauma-shattered life.

The good news? You don't need to try to hide the cracks as you put the pieces back together. Instead, highlight those repaired seams, which add strength, beauty and immeasurable value.

## Reframing life's experiences

Kintsugi isn't just for broken pottery or shattered ceramics. Kintsugi can be found in people whose bodies are injured or failing. While these folks can't do what they once did, their spirit can become more beautiful, helping the rest of us see the divine more clearly.

Kintsugi is also reflected in people who have learned to "rewire" their brain to focus on the positive instead of the negative. These amazing souls routinely express gratitude, knowing that there's always something to be thankful for.

The chapters of these authentic life stories are filled with resilience and hope. They can also inspire the most practical resolution for the year ahead – embrace the principles of kintsugi. What a powerful way to reframe life's experiences and write new chapters in our story, all by finding beauty in the broken.

*Darcy Dougherty Maulsby lives near her family's Century Farm northwest of Lake City. Visit her at [www.darcymaulsby.com](http://www.darcymaulsby.com).*



A kintsugi bowl that was shared during the "Come to the Quiet" retreat in Lake City.



The magazine  
for members of  
Iowa's electric  
cooperatives

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