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of Iowa

● APRIL 2022

iowa

ELECTRIC COOPERATIVE LIVING

**Philanthropy helps rural
communities flourish**

**Batteries are
booming**

**Spring forward with
salad recipes**

Win an electric string trimmer ► See Page 3

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ART DIRECTOR
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Iowa Electric Cooperative Living magazine (ISSN: 1935-7176) is published monthly by the Iowa Association of Electric Cooperatives, a not-for-profit organization representing Iowa's member-owned local electric cooperatives. Association address: 8525 Douglas Ave., Suite 48, Des Moines, IA 50322-2992. The phrase ***Iowa Electric Cooperative Living*** is a mark registered within the state of Iowa to the Iowa Association of Electric Cooperatives. The magazine does not accept advertising.

Editorial Office
8525 Douglas Ave., Suite 48, Des Moines, IA 50322-2992. Telephone: 515-276-5350.

Email Address
editor@ieclmagazine.com. *Iowa Electric Cooperative Living* magazine does not assume responsibility for unsolicited items.

Website
www.ieclmagazine.com

Postmaster
Send address changes to *Iowa Electric Cooperative Living* magazine, 8525 Douglas Ave., Suite 48, Des Moines, IA 50322-2992. Periodicals Postage Paid at Des Moines, Iowa, and at additional mailing offices.

Change of Address
Every local electric cooperative maintains an independent mailing list of its members, so please send your change of address directly to your local electric cooperative's office. *Iowa Electric Cooperative Living* magazine cannot make an address change for you.

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ON THE COVER

Special thanks to Linda Eastman, 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!

ENDING THE RURAL ENERGY TAX

BY KEVIN CONDON



Even with all the news about income taxes at the Iowa Capitol this year, there are still more tax issues the Iowa Association of Electric Cooperatives (IAEC) is pushing

our elected officials to address. After years of education and advocacy from Iowa's electric cooperatives, rural Iowans and others were mistakenly left out of a tax exemption established in 2018.

Oversight costs rural co-op members

With the explosion of digital and online transactions, Iowa legislators grappled with appropriately applying sales and use taxes. In an attempt to keep true to Iowa's longstanding approach of taxing outputs and not inputs for business and industry, a catchall definition for most for-profit, corporately organized businesses (e.g., investor-owned utilities) was created in 2018. Other organizations, including not-for-profit electric cooperatives, were to be spelled out elsewhere for the tax exemption. Unfortunately, electric co-ops and the 650,000 Iowans we serve were unintentionally left off the list.

IAEC estimates that co-op member-consumers have paid nearly \$300,000 more each year because their electric cooperatives are assessed the digital goods sales tax. Since the tax went into effect in 2019, that overall number is likely more than \$1 million. It will only continue to grow with the further transition to digital goods and services, as well as the responsibility to protect co-ops from cybersecurity threats.

Correcting the tax policy

Iowa's electric co-ops are working hard to ensure another legislative session doesn't adjourn without

correcting this oversight. We are working with Iowa lawmakers to support HF 2520, which will fix the tax exemption mistake. We believe a zip code shouldn't dictate whether you pay higher taxes on goods and services necessary for your utility to conduct business and provide your power. Paying more on your energy bills because of your address isn't a fair way to apply the sales and use tax.

Monitoring other energy issues at the statehouse

In addition to tax policy, Iowa's electric co-ops are on the lookout for legislation that could make affordable and environmentally responsible power more difficult to provide. One such bill (HSB 697), which didn't survive in the statehouse, would have attempted to create a scheme where a select group of individuals

could create a solar farm to benefit a select few and, in turn, shift the costs of the infrastructure onto their fellow co-op neighbors. Another bill we're monitoring (SF 2321) would strip landowners of their property rights by prohibiting them from deciding how they want to use their land, based on a corn suitability rating score.

Whether ending the rural energy tax or trying to prevent poorly crafted bills mentioned above, Iowa's locally owned electric co-ops will always advocate for the member-consumers we serve. In addition to our commitment to provide electric service to you, we also want to keep decision-making local and your hard-earned money in local communities.

Kevin Condon is the director of government relations for the Iowa Association of Electric Cooperatives.

EDITOR'S CHOICE CONTEST

Win an electric string trimmer

This Craftsman Weedwacker V20 makes caring for your lawn a breeze! It is 20-volt max, battery operated and cordless. The string trimmer easily doubles as an edger with a simple twist of the telescoping pole.

Visit our website and win!

Enter this month's contest by visiting www.ieclmagazine.com no later than April 30. 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 portable power station from the February issue was Dan Ries, T.I.P. Rural Electric Cooperative.



ENTER ONLINE BY APRIL 30!



ENTER TO WIN

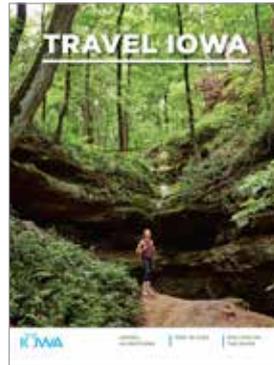
WIN \$100 FOR A PUBLISHED COVER PHOTO

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.

SPRING/SUMMER IOWA TRAVEL GUIDE NOW AVAILABLE

The spring/summer edition of the Iowa Travel Guide is now available to inspire travelers who want to plan their Iowa road trip. The free 140-page guide can be ordered online at traveliowa.com, by phone at 800-345-IOWA or picked up at any of Iowa's 14 Welcome Centers. An online version is also available.

The guide showcases Iowa's authentic and unexpected destinations, animal adventures, distilleries, historic theaters, water trails, what's new in 2022 and road trips. Campgrounds and cabin listings are also included.



The guide's cover features Wildcat Den State Park near Muscatine.

The Iowa Tourism Office, part of the Iowa Economic Development Authority, works closely with community partners, attractions and events, to promote the state's beautifully vast scenery and unique history.

Tourism in Iowa generated \$1.5 billion in tax revenues in 2020, with more than \$860 million supporting state and local governments, while employing a total of 60,218 people statewide. For more information, visit traveliowa.com.

QUOTES OF THE MONTH



In March, National Rural Electric Cooperative Association (NRECA) CEO Jim Matheson welcomed more than 5,000 attendees

to the 2022 PowerXchange in Nashville with a message lauding electric cooperatives' reputation and accomplishments as well as their aspiration to move their communities forward.

Through general sessions featuring nationally renowned leaders, educational breakout sessions and interactive learning sessions, cooperative leaders come together at PowerXchange to share ideas, strategies and best practices while casting their vote on future-focused issues.

Matheson noted that electric co-ops are viewed as a trusted source by Republicans and Democrats on Capitol Hill about where their communities stand, and he discussed how NRECA has worked to fortify that reputation.

"When policymakers look at every other organization in the energy industry, they see a partisan set of special interests. They see a friend or a foe, based on their politics. But when they look at America's electric cooperatives, they see communities. They see people. They see you [co-op member-consumers]. As a result, in Washington D.C., we stand out," he said.

Matheson outlined four co-op values he highlights when meeting with policymakers:

- Co-ops strengthen communities through innovation and member support.
- Co-ops provide essential services, such as broadband, where no one else will.
- Co-ops provide reliable service from a resilient system.
- Co-ops accelerate the advancement of technology in rural America.

"We always say the electric co-op is about serving the member at the end of the line," he said. "But when you challenge yourself... and aspire to a larger purpose and a greater good, the thing about the end of the line becomes the fact that you never really get there. There's always something more we can do to keep our communities moving forward."

ARE YOU PREPARED FOR SEVERE WEATHER? MAKE A PLAN!

With severe storm season on the horizon, it's a good time to review and update your emergency plan and restock your emergency supplies.

Here's some advice from Ready.gov:

Your family may not be together if a disaster strikes, so it's important have a plan. Know how you'll contact one another and reconnect if separated. Establish a family meeting place that's familiar and easy to find.

➔ **Step 1: Put a plan together by discussing the questions below with your family, friends or household to start your emergency plan.**

- How will I receive emergency alerts and warnings?
- What is my shelter plan?
- What is my evacuation route?
- What is my family/household communication plan?
- Do I need to update my emergency preparedness kit?

➔ **Step 2: Consider specific needs in your household.**

Discuss your needs and responsibilities and how people can assist each other with communication, care of children, business, pets or specific needs like operating medical equipment. Create



your own personal network for specific areas where you need assistance. Keep in mind some these factors when developing your plan:

- Different ages of members within your household
- Responsibilities for assisting others
- Dietary needs
- Medical needs, including prescriptions and equipment
- Pets or service animals

➔ **Step 3: Fill out a Family Emergency Plan**

- Download and fill out a family emergency plan or use it as a guide to create your own. <https://bit.ly/FEMAFamilyEmergencyPlan>

➔ **Step 4: Practice your plan with your family/household**

Source: Ready.gov



IAEE OFFERS \$1,000 SCHOLARSHIP

The Iowa Association for Energy Efficiency (IAEE) is currently accepting applications for its 2022 scholarship.

To help ensure the continued success and development of future energy efficiency professionals in Iowa, a \$1,000 scholarship may be awarded annually. All eligible applicants are encouraged to apply by May 1, 2022. The scholarship award will be announced in July and the award recipient will be highlighted at the IAEE Iowa Energy Summit. Payment will be sent to the school by August 2022.

To be eligible for this scholarship, applicants must:

- Have a high school diploma or GED
- Be currently enrolled at an accredited post-secondary institution in Iowa, with at least one full semester completed and one full semester remaining
- Be pursuing a degree which supports the mission of IAEE
- Have a GPA of 2.5 or higher
- Be committed to pursuing a career in the energy efficiency industry
- Note that individuals pursuing a graduate degree are not eligible.

Details: www.iowaenergy.org/en/news/iaee_scholarship_program

MOVE OVER FOR UTILITY VEHICLES

MOVE OVER SLOW DOWN

Safety message from Iowa's electric cooperatives

PHILANTHROPY STRENGTHENS RURAL COMMUNITIES

BY KAY SNYDER

The 2021 Okoboji
Entrepreneurial
Institute class.

When you think about your local economy and the businesses and organizations that make it special, you likely think about agriculture, manufacturing and small business. But you should also think about nonprofit organizations, public-private partnerships, foundations and philanthropic initiatives that make incredible contributions to your community's attractiveness and quality of life.

A big impact for the state

In Iowa, an estimated 30,000 nonprofit organizations are helping individuals, businesses and governments provide vital services to

enrich their communities and serve their residents. Collectively, these organizations are responsible for approximately 9% of Iowa's jobs and more than 8% of state wages.

Their contributions go much further, as these institutions also purchase an enormous amount of goods and services. They provide meaningful opportunities for volunteerism and often attract resources, grants and contributions from well beyond the communities they serve. The reputation of nonprofit organizations plays a vital role in attracting and retaining families, retirees and workers.

Co-ops help nonprofits flourish

Iowa rural electric cooperatives know the importance of these organizations, whether directed at arts and culture, health and human services, education, recreation or other important public services. Your local cooperative's staff volunteer, contribute financially and assist in garnering grants that benefit nonprofits and the co-op members they serve.

Through the support of the Iowa Area Development Group (IADG), your cooperative has played a pivotal role in establishing Iowa's now flourishing network of community foundations. In advocating for legislation that fosters

community foundation formation, training and endowment building, your co-op is helping sustain and strengthen the services and the support of Iowa's nonprofit organizations.

Working together for the greater good

In 2003, IADG formed the IADG Community Foundation (IADG CF), the first community foundation with a statewide focus. IADG CF then formed a meaningful partnership with the Community Foundation of Greater Des Moines to serve county-wide community foundations across the state. In all, 38 counties participate in the Iowa Community Affiliate Network (Iowa C.A.N.) for foundation building education, training, networking and support.

Together, these rural-focused community foundations in Iowa C.A.N. make an incredible impact. At year-end 2021, their collective assets for endowment and grantmaking climbed to \$75 million. The contributions and gifts received for the year surpassed \$33 million. Most importantly, these community foundations have awarded their local communities and nonprofits with nearly \$10 million in leveraged grants. In response to COVID-19, the Aug. 2020 derecho and other disasters, these organizations raised more than \$1 million for nonprofit community response.

Community foundations play an essential role in convening crucial community conversations, supporting planning efforts, conducting feasibility studies and spearheading project

fundraising. The accomplishments and contributions of Iowa's community foundations can be seen in everything from bike trails, childcare facilities, education programs, food pantries, health care initiatives, parks, recreation and safety investments. Projects are determined locally and by the voluntary support of caring and committed citizens.

Expanding reach and capabilities

When IADG CF is not busy helping others develop and grow their foundations, attention is focused on expanding the reach and capabilities of its own charitable mission. IADG CF remains uniquely committed to a philanthropic mission focused on economic development, community betterment, civic leadership, entrepreneurship and philanthropy.

Since its inception in 2003, IADG CF has awarded 248 grants totaling \$639,976. In 2021, the IADG CF authorized 15 grants totaling \$68,350. These awards included funding for an Iowa dairy industry economic impact study, scholarship for the Iowa poultry industry, revolving loan fund training workshops, economic development conferences and entrepreneurship program support.

IADG CF also supported the following projects:

- **The Okoboji Entrepreneurial Institute.** A week-long program where 32 college students participate in an advanced study of entrepreneurship. The experience includes seminars with successful entrepreneurs, and business and

community leaders, a simulation, and networking and mentoring to enhance their understanding of entrepreneurship opportunities in Iowa.

- **The 2021 Iowa Rural Summit and Rural Hero Awards.** Nearly 250 rural leaders from every corner of the state attended the fifth-annual summit to discuss challenges and opportunities for rural communities. The Rural Hero awards recognized 14 individuals for their contributions to their community and Iowa.
- **The "Heart and Soul" Program in Postville.** A local effort to develop a comprehensive and inclusive plan to lay the foundation for continued success and growth.
- Establishing or continuing several dental practices that serve communities in rural Iowa.

IADG CF operates with the leadership and support of a volunteer board of directors. The generosity of many people and organizations allows the IADG CF to grow its commitment to philanthropy and be a "Partner in Progress" for Iowa's rural communities. On behalf of its utility sponsors, IADG CF is committed to helping Iowa community foundations flourish and grow.

Learn more about community philanthropy by visiting IADG.com/foundation.

Kay Snyder is the director of marketing and communications for the Iowa Area Development Group.



Community leaders recognized for rural leadership in Iowa as a part of the Iowa Rural Summit.



Main Street Dental in Marshalltown.

LETTUCE SALAD RECIPES

WINTER LETTUCE SALAD WITH POPPY SEED DRESSING

- 1 head romaine lettuce
- 4 ounces Swiss cheese, shredded
- 1 cup cashews
- ¼ cup dried cranberries
- 1 apple, cored and sliced
- 1 pear, cored and sliced
- ½ cup white sugar
- ½ cup lemon juice
- 2 teaspoons onion, diced
- 1 teaspoon mustard
- ½ teaspoon salt
- ⅔ cup vegetable oil
- 1 tablespoon poppy seeds

Tear lettuce into bite-size pieces. In a large bowl, toss lettuce with cheese, cashews, cranberries, apples and pears. In a blender or food processor, combine sugar, lemon juice, onion, mustard and salt. Process until well blended. Add oil slowly, until mixture is thick and smooth. Add poppy seeds and process for a few seconds. Pour dressing over salad just before serving and toss to coat. *Serves 12*

**Carol Van De Stroet • Inwood
North West Rural Electric Cooperative**

LAYERED GREEN SALAD

- 1 head lettuce, torn
- 1 cup celery, diced
- 1 cup green pepper, diced
- ½ cup onion, diced
- 1 package frozen peas, uncooked
- 2 tablespoons sugar
- 2 cups Miracle Whip
- 1 cup shredded cheese
- 8 strips bacon, cooked and crumbled

Layer the first seven ingredients in a 9x13-inch baking dish or other large non-metal pan. Top with shredded cheese and bacon bits. Make 24 hours ahead or overnight. *Serves 12*

**Carmel Hammen • Clarion
Prairie Energy Cooperative**

BACON AVOCADO SALAD

- ¾ cup extra virgin olive oil
- ¾ cup red wine vinegar
- 4 teaspoons sugar
- 2 garlic cloves, minced
- 1 teaspoon salt
- 1 teaspoon Dijon mustard
- 1 bunch romaine, chopped (about 12 cups)
- ¾ pound bacon, cooked and crumbled
- 3 medium tomatoes, chopped
- 1 medium red onion, halved and thinly sliced
- 3 medium ripe avocados, peeled and cubed
- 2 tablespoons lemon juice
- 1 cup Gorgonzola or feta cheese, crumbled (4 ounces)

Place first six ingredients in a jar with a tight-fitting lid, shake well until blended. Refrigerate dressing until serving. In a large bowl, combine romaine, bacon, tomatoes and onion. Toss avocados with lemon juice and add to salad. Sprinkle with cheese. Serve with dressing, shaking jar to blend again if needed. *Serves 10*

**Clark DeSmet • Alvord
Lyon Rural Electric Cooperative**

HARVEST APPLE SALAD

- 3 Golden Delicious or Fuji apples, chopped
- 1 tablespoon vegetable oil
- $\frac{2}{3}$ cup extra virgin olive oil
- $\frac{1}{3}$ cup red wine vinegar
- salt and pepper, to taste
- 1 package torn lettuce
- 1 package crumbled blue cheese
- $\frac{1}{2}$ cup walnuts or pecans

Sauté apples in vegetable oil until tender. Keep warm. Combine olive oil, vinegar, salt and pepper in a large bowl and mix well. Add lettuce, blue cheese and nuts. Just before serving, add warm apples and toss to mix. *Serves 4-6*

Sarah Shaver • Missouri Valley
Harrison County Rural Electric Cooperative

CASHEW LETTUCE SALAD

- $\frac{3}{4}$ cup sugar
- 1 cup oil
- $\frac{1}{3}$ cup vinegar
- 1 teaspoon ground mustard
- 1 teaspoon poppy seed
- $\frac{1}{2}$ teaspoon salt
- 1 head lettuce, cut up
- 1 cup Swiss cheese, grated
- 1 cup cashews

Mix first six ingredients into a dressing and refrigerate. Mix lettuce, cheese and cashews. Pour dressing over lettuce mixture just before serving.

Deanna Underwood • Aplington
Butler County Rural Electric Cooperative

WILTED LETTUCE SALAD

- 1 pound bacon
- $\frac{1}{2}$ cup flour
- $1\frac{1}{4}$ cups vinegar
- $1\frac{1}{4}$ cups water
- 1 head lettuce
- salt and pepper, to taste

Chop bacon into 1-inch pieces, fry in pan. Keep $\frac{2}{3}$ grease and add flour to pan to thicken. Add vinegar and water until creamy (add more or less to your liking). Chop lettuce and add to large bowl. Add salt and pepper to taste. Stir in bacon gravy mixture while still warm but not hot. Toss and serve. *Serves 6*

Christine Boecker • New London
Access Energy Cooperative

STEAK SALAD

- 5 cups Romaine lettuce, torn
- 2 small tomatoes, sliced or diced
- 1 yellow pepper, cut into strips
- 1 pound beef flank steak, grilled and sliced
- $\frac{1}{2}$ cup cheddar cheese, shredded
- $\frac{1}{2}$ cup dried cranberries
- salad dressing

Layer lettuce, tomatoes, pepper, steak and cheese, then toss. Top with cranberries and serve with your choice of salad dressing.

Mary Gropper • Chelsea
T.I.P. Rural Electric Cooperative

SPEEDY SOUTHWESTERN SALAD

- $\frac{1}{2}$ cup ranch dressing
- $\frac{1}{2}$ cup salsa
- 1 package salad greens
- 1 15-ounce can corn, rinsed and drained
- 1 15-ounce can black beans, rinsed and drained
- 1 cup tortilla chips, broken
- $\frac{1}{2}$ cup cheddar cheese, shredded
- $\frac{1}{2}$ cup tomatoes, chopped

Mix ranch dressing and salsa together. In a glass bowl, layer all ingredients in the following order: salad greens, corn, beans, ranch salsa mixture, chips, cheese and tomatoes.

Stephanie Messner • Rock Rapids
Lyon Rural Electric Cooperative

WANTED:

STATE FAIR-INSPIRED RECIPES

THE REWARD:

\$25 FOR EVERY ONE WE PUBLISH!

Deadline is April 30

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

Iowa Electric Cooperative Living • 8525 Douglas Ave.,
Suite 48, Des Moines, IA 50322-2992



10 IDEAS

FOR SUMMER ENERGY SAVINGS

BY MIRANDA BOUTELLE

Pull curtains shut during the hottest times of the day to block out sunlight.

Summer fun is just around the corner! Now is the perfect time to start preparing your home for warmer weather. Consider following these 10 tips to help keep your house cool and save on your energy bills this summer.

1 Service your air conditioner

Air conditioning (AC) units work by moving air over fins or coils that contain refrigerant. When the fins or coils get dirty, the unit doesn't work as well and uses more energy.

Whether you have a portable unit, central AC or a ductless/mini-split, cleaning the filter, coils and fins is a great way to get your system ready for summertime. If you are tackling this yourself, always disconnect power to the unit. Central AC systems have two sets of coils, one inside and one outside. Both coils should be cleaned annually. If you hire a professional, they can check refrigerant levels during the process.

2 Seal your window AC unit

If you have a window or portable AC unit that vents through a window, seal the area between the window sashes. Water heater pipe insulation is a great way to seal this spot. It's available at your local hardware store and is easy to cut for a snug fit.

3 Thermostat settings

Keeping your thermostat at the highest comfortable temperature will save you money. If you aren't home during the day or have vacation plans, increase the thermostat by 8 to 10 degrees F. There's no need to cool an empty house!

4 Keep your cool

Before heading to the thermostat to turn down the temperature, try using a fan, changing into lighter clothing and



Turn off your gas fireplace pilot light in the summer.

drinking something cool. These simple steps may be enough to make you comfortable without spending more money to cool your home. Finding the balance between comfort and savings is key.

5 Lock windows

After opening your windows at night or in the morning to let in fresh air, ensure your windows are closed and locked. Doing so reduces gaps that allow air to flow through and cause drafts. If your locks don't form a tight fit, you may need to add weatherstripping.

6 Weatherstripping and curtains

Sealing and covering windows may seem like a wintertime efficiency practice, yet these help in the summer, too. Windows are typically the least-insulated surface in a room no matter the season!

Add weatherstripping to form a tight seal around the outside of the window. These seals can be found at a hardware store and are easy to install on your own. Another easy way to cool down a room is to close the curtains during the hottest times of the day to block out the sun. Blackout curtains are a thick fabric curtain option that will help keep the room cool and dark.

7 Cook al fresco

Take dinnertime outside to help keep your kitchen cool and your AC from working overtime to counteract kitchen appliances. Some grills have an extra side burner that makes it simple to do outdoor stovetop cooking.

8 Add insulation

While you may associate insulation with cold weather, adding insulation can keep your home more comfortable by keeping cool air in and hot air out. Insulation helps your AC

use less energy to cool your home. As a general rule, if you can see the joists on the floor of your attic, you need more insulation!

9 Turn off gas fireplaces

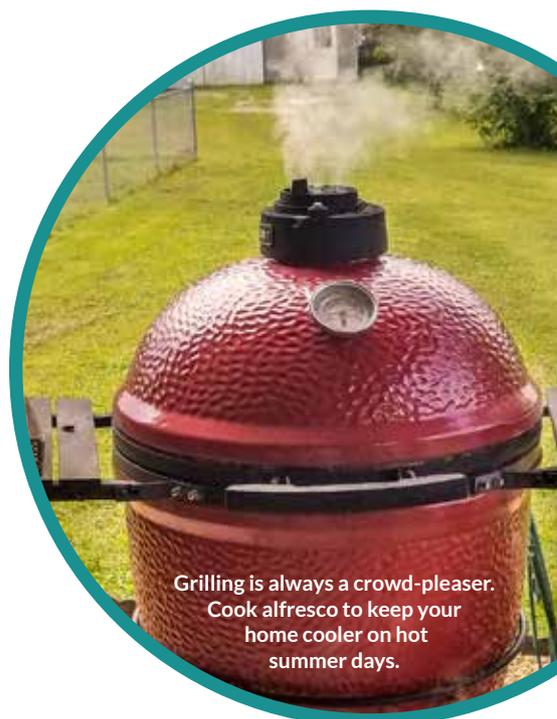
Reducing the amount of heat entering your home can keep it cooler, especially if you don't have AC. If you have a gas fireplace, the pilot light lets off a small amount of heat into the room. Consider turning the entire fireplace off during the summer months.

10 Add shade outside

Planting trees and shrubs strategically around your home can shade the roof, walls and pavement while reducing heat radiation to your home. According to the U.S. Department of Energy, tree-shaded neighborhoods can be up to 6 degrees F cooler in the daytime than treeless areas. Before buying a tree or shrub, check with your city or utility about free tree programs.

Spring is a great time to be proactive about preparing your home for warmer temperatures. Applying a few of these ideas will help keep you comfortable and provide energy savings all summer long!

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.



Grilling is always a crowd-pleaser. Cook al fresco to keep your home cooler on hot summer days.



Keeping your thermostat at the highest-comfortable temperature will save energy and money.

CAN ROOFTOP SOLAR WORK IN DISASTER-PRONE AREAS?

BY KATHERINE LOVING

Severe weather and natural disasters can result in power outages, leaving residents and businesses without electricity. In areas where these events have an increased risk of occurring more frequently, the thought of installing solar panels may seem like an uncertain option.

The idea of having a source of grid-independent electricity may be appealing, especially as technology improves and costs drop. But concerns about rooftop systems withstanding severe weather conditions are real. Careful planning, maintenance and product choice can help mitigate some risks if installing solar panels makes sense for your home or business.

Considerations for rooftop solar

It is standard practice for rooftop systems to shut off automatically during a power outage. This safety feature ensures the system doesn't send power back to the grid, potentially harming lineworkers.

Installing a battery storage system can help provide emergency power by isolating the home system from the electric grid. A properly sized battery could provide enough electricity to power critical household loads like refrigerators or medical equipment in the case of an outage. A solar inverter and a switch can operate the system without support from the grid and provide limited power when the sun is shining.

Regular maintenance is also essential for rooftop solar generation. The system should be installed in a location that makes it easily accessible for maintenance and repairs.

System hardening, or techniques to reduce vulnerabilities, is another step that may help create resilient solar panels. Hail, strong winds, snow and ice are the top threats to rooftop solar systems and hardening methods vary.



One technology that can help protect panels across many types of weather issues is an axis tracker. This computer-assisted device moves panels to a more vertical position to minimize damage from wind, snow and hail.

Hail

International standards require panels to withstand hail at sizes up to one inch in diameter and speeds up to 50 mph. This may not be strong enough for some Midwest summer storms. Choosing panels made of fully tempered glass, which are thicker and more impact-resistant, may be a solution, but they are much heavier. A stronger frame is also suggested to make the installation more robust.

Strong winds and derechos

Many panel systems are rated for 140 mph winds as standard. To improve the structural connection, additional hardening can be achieved by bolting (instead of clamping) the frame to the roof. If using an axis tracker is not an option, manually moving the tilts of the panels ahead of a storm may be a good option.

Snow and ice

With winter weather it may be worthwhile to consider stronger support structures because heavy snow piles can stress the system. Solar panels can't produce energy if snow and ice block sunlight but will resume once it melts away.

Katherine Loving writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.



Solar Energy Guide

Iowa's electric cooperatives are committed to helping member-owners make educated energy decisions that

make sense for their home or business. Before moving ahead with a solar project, contact your local co-op first and also review the Solar Energy Guide for tips and to learn the requirements for interconnection.

www.iowarec.org/publications/solar-resources

UTILITY APPRECIATION DAY TO BECOME ANNUAL RECOGNITION

On Tuesday, March 8, Iowa Sen. Carrie Koelker (R - District 29 from Dyersville) introduced Senate Resolution 103, which was adopted by the Senate. Sponsoring this resolution is particularly meaningful to Koelker, as she explains on her Facebook post:

"I grew up seeing firsthand the hard work of a lineman atop high voltage power lines 24/7: 365 days of the year no matter the weather condition. It took my father's life at the young age of 43 in 1987.

The Iowa RECs will always have a special place in my heart. When lights go out these hard workers go to work in extreme weather conditions. They're steeped in personal, family, and professional traditions and are often first responders during storms and other catastrophic events. I invite the people of Iowa to be mindful and join me in appreciation for the dangerous work they do for our great state."

The resolution closes by declaring "the Senate designates March 8, annually, as Utility Worker Appreciation Day, and calls upon the people of Iowa to be particularly mindful of the dangerous work done under extreme conditions day in and day out by these dedicated public safety workers and show their appreciation at every opportunity."



Photo Credit: Sen. Carrie Koelker



RECOGNIZING LINEWORKERS ON APRIL 11

Across the state on April 11, Iowa's electric cooperatives also annually recognize lineworkers. In 2015, the National Rural Electric Cooperative Association passed this resolution:

"Whereas linemen leave their families and put their lives on the line every day to keep the power on; Whereas linemen work 365 days a year under dangerous conditions to build, maintain and repair the electric infrastructure; Whereas linemen are the first responders of the electric cooperative family, getting power back on and making things safe for all after storms and accidents; and Whereas there would be no electric cooperatives without the brave men and women who comprise our corps of linemen; Therefore be it resolved that NRECA recognize the Second Monday of April of each year as National Lineman Appreciation Day and make available to electric cooperatives, materials and support to recognize the contributions of these valuable men and women to America's Electric Cooperatives."

BATTERIES ARE BOOMING

BY PAUL WESSLUND

If your smartphone battery has become a large share of your daily thoughts, just wait because the battery market is booming. Innovators are now developing washable and bendable batteries to heat your gloves or be sewn into athletic wear to help track your exercise routine.

Electric utilities use batteries for slightly more practical reasons – to make electricity more reliable and more compatible with renewable energy sources. Also, the booming electric vehicle (EV) market has been made possible by dramatic advancements in battery technology.

Analysts estimate the world battery market value at more than \$100 billion and project it will grow more than 10% annually over the next five years. People need batteries for their phones, laptops, power tools, watches and EVs. They want them to last longer. They want them smaller. They want them cheaper. And researchers and entrepreneurs are busy meeting those demands.

“Big game” ads

EVs – which run on large, rechargeable batteries – are a leading example of the trend. Ten years ago, there were hardly any EVs on the road. In 2020, EV sales hit 3 million, and now there are 10 million on the road worldwide and that growth is expected to continue.

Six of this year’s ads during the NFL’s big game featured EVs. Manufacturers worldwide plan to spend more than half a trillion dollars on EVs and batteries in the next eight years. In the U.S. alone, 13 EV battery manufacturing plants are expected to open in the next five years.

The battery bandwagon brings strong incentives for investments to make batteries even stronger. This cycle of innovation is cutting battery costs too. The price of the most popular type of rechargeable battery is down more than 90% from what it was 10 years ago.



Manufacturers around the world plan to spend more than half a trillion dollars on EVs and batteries in the next eight years. The Kansas City Assembly Plant shown here is Ford’s first U.S. plant to assemble batteries and EVs.

Photo Source: Ford



Utility use of large battery systems, like the Tesla Megapack, is adding efficiency and reliability to the nation’s electric grid.

Photo Source: Tesla

Batteries aid renewable energy use

Utility use of large batteries adds efficiency and reliability to the nation’s electric grid.

Utilities, including locally owned electric cooperatives, use batteries in several ways. They can smooth out voltage and frequency differences that damage equipment and affect power quality. Batteries can also make better use of the intermittent nature of renewable energy sources. By storing excess solar energy produced during the day when electric demand is low, batteries can make that sun power available for use at night when electric demand is high.

Utility-scale battery capacity jumped 35% in 2020, tripled in the past five years, and by 2023, the U.S. Energy Information Administration (EIA) reports electric utilities will have 10 times the battery capacity they had in 2019.

EIA reports that much of that increase comes from battery systems located near large solar projects, making it easier to store electricity produced by solar panels.

One especially innovative use of batteries came in 2020 when a heatwave strained California’s electric supply. The state’s energy manager asked businesses and homeowners with batteries to supply emergency power. More than 30,000 responded, including backup power owners and EV charging providers.

Whether used for making electricity more reliable or a fun new gadget to track our fitness habits, battery technology will continue to play a major role in our future.

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.

APRIL FOOLS' FAILS

BY VALERIE VAN KOOTEN

I come from a long line of failed pranksters. Practical jokes backfire; carefully wrought capers fizzle. We just haven't figured out the knack, I guess.

When my sister Amber and I were about 10 and 8, we decided to trick our 2-year-old brother Brendan, who had an inexplicable fear of custard. Yes, the pudding-like substance that I'm not sure he'd ever tasted. Taking advantage of his toddler naivete, we told him to "open your mouth and close your eyes, and you'll get a surprise that will make you wise."

The only ones surprised were Amber and I when Brendan threw up all over and we had to clean it up.

My Grandpa Beyer had a dubious tradition of calling his kids on their birthdays at the brink of day and bellowing a truly off-tune version of "Happy Birthday." His daughter's birthday is on April 1; when she answered the phone, he went through his routine, only to be scolded roundly by some unhappy woman on a wrong number who didn't find this funny at all. To be fair, neither did Grandpa.

Classroom joke backfires

But the prank that I remember most, the one where I was hoisted on my own petard, so to speak, is an April Fools' joke from second grade.

Bradley was a kid in my class who was intent on eating my lunch. Well, not my whole lunch, but any sweet thing my mom had packed that day. He was particularly partial to small candy bars that would occasionally end up in my "The Partridge Family" lunchbox, and I'm sure he had the nose of a bloodhound. He never bothered me on the days when I had raisins or grapes.

He'd amble up to me as the first recess bell rang and say, "Can I have your candy bar/cookie?"

"No!" I'd exclaim with all my second-grade righteousness on fire. "Bring your own!" I knew full well that Bradley had



a well-stocked "Star Trek" lunchbox of his own, so I wasn't having any of it.

This went on for the better part of the school year, but once April 1 rolled around, I had the perfect solution.

I took a miniature chocolate bar – the flat kind – and pushed the waxy wrapped chocolate out of the outer wrapper. I removed the chocolate and replaced it with a piece of cardboard the exact same depth that I had cut from an old shoebox. I re-wrapped the chocolate and pushed it back into the outer wrapper. It was sublime! Bradley would never know the difference!

April 1 arrived, and I went off to school with two candy bars – my own and the faux version. As Bradley galloped over to me at recess and asked for my candy bar, I feigned compassion and

said that just this once, he could. He couldn't believe his ears! He grabbed the preferred candy bar from my hand, ripped it open, and snarfed up the chocolate.

Something was wrong here. Where was the cardboard?

I had given him the real candy bar!

Well, you can surmise that I felt like an idiot, but Bradley never caught on, and pride would never allow me to 'fess up.

I never again tried to trick anyone with food; however, I'm wondering how my kids would react to me calling them at dawn and singing "Happy Birthday"?

Valerie Van Kooten is a writer from Pella who loves living in the country and telling its stories. She and her husband Kent have three married sons, two incredibly adorable grandsons and a lovely granddaughter.

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