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MARCH 2024

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ELECTRIC COOPERATIVE LIVING

Women are increasingly  
powering electric co-ops

What to know if you're  
considering solar energy

Sheet pan recipes

Win a Bissell® carpet cleaner ► See Page 3



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## ON THE COVER

Special thanks to Abigail Westbrook, a Consumers Energy member-consumer, for supplying this month's cover image. Submit high-resolution photos for consideration to [editor@ieclmagazine.com](mailto:editor@ieclmagazine.com). You could receive \$100!

# EDUCATION AND TRAINING ARE ESSENTIAL TO BEST SERVE OUR ELECTRIC COOPERATIVE MEMBERS

BY KATRINA DAVIS



While many of us enjoy spring break in March, education and training are always on the calendar for Iowa's electric cooperatives.

In my role as director of education and training for the Iowa Association of Electric Cooperatives (IAEC), I organize more than 50 trainings, workshops and conferences each year for the staff and board directors of Iowa's electric co-ops.

In our cooperative mission to power lives and empower communities, we have an obligation to serve with excellence. Electric cooperatives invest in educating their directors and employees because they know their knowledge will result in even stronger leadership for years to come.

The following are just a few of the affordable learning opportunities that we offer at IAEC.

## Directors' Update

This annual event is held for a day and a half in February and covers topics relevant to Iowa electric cooperative board members. Our 2024 agenda included emerging trends like how to prepare the cooperative workplace for the next generation of employees, the co-op board's role in a changing industry and what to know about cybersecurity insurance for electric cooperatives.

## Conferences for Professional Groups

Each spring and fall, IAEC hosts conferences for various professional groups, including co-op managers and staff in human resources, information technology, communications and member services, accounting and finance, and safety and operations. Co-op employees benefit from presentations that shine a light on emerging technologies, industry trends,

and statewide updates on regulatory and legislative developments. Attendees also have opportunities to network with each other and share best practices.

## Cooperative Leadership in Iowa Program

The Cooperative Leadership in Iowa Program (CLIP) is a new and emerging leadership program for employees of any department at Iowa's electric cooperatives. Participants attend in-person and virtual sessions throughout the year and graduate from the program in December during IAEC's annual meeting. In our first year, 15 employees graduated from the program in 2023, and 17 employees are going through the program this year. CLIP graduates walk away with a greater understanding of the electric cooperative business model and learn how to harness their strengths for effective leadership at the co-op.

## Field Leader Training

This two-day, in-person training moves beyond technical aspects of the job and teaches leadership skills necessary to effectively direct the activities of a crew, work on the crew and communicate with management. The interactive scenarios and cases are just like the ones encountered on the job every day, so learning can be immediately applied when planning work, leading teams and improving safety.

Investing in education and training for effective leadership is just one way that your electric co-op ensures you receive safe, reliable, affordable and sustainable electricity. I'm proud to help directors and employees accomplish these goals through my role at the statewide association.

*Katrina Davis is the director of education and training for the Iowa Association of Electric Cooperatives.*

## EDITOR'S CHOICE CONTEST

## SPRING CLEAN BY WINNING A BISSELL® SPOTCLEAN PROHEAT CARPET CLEANER!

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### Visit our website and win!

Enter this month's contest by visiting [www.ieclmagazine.com](http://www.ieclmagazine.com) no later than March 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 All-Clad immersion blender from the January issue was Connie Stickley, a Butler County Rural Electric Cooperative member-consumer.



ENTER ONLINE BY MARCH 31!

# RELIABLE, AFFORDABLE ELECTRICITY HINGES ON RATIONAL PUBLIC POLICY

Electric cooperatives are eager to develop resources for enduring reliable and affordable energy, but the federal government must do its part to help keep the lights on with rational public policy for a growing economy, National Rural Electric Cooperative Association (NRECA) CEO Jim Matheson told utility leaders in Washington.

"It's a great time to seize opportunities to be an even better country, and it's going to require reliable, affordable energy to make it happen," Matheson said in a discussion on energy use and supply at the U.S. Energy Association's 20th Annual State of the Energy Industry Forum Jan. 23.

"But we have to acknowledge the risks to meeting that need, and one of the biggest risks is the role of public policy."

The North American Electric Reliability Corporation has "for the first time ever identified public policy as one of the primary risks in terms of electric reliability, and you can see that playing out now" in the Environmental Protection Agency's (EPA) proposed power plant rule, Matheson said.

"We are very concerned about reliability. We are very concerned about premature closure of plants" because of the current regulatory environment, he said.

EPA proposes to eliminate carbon dioxide emissions from coal- and gas-based power plants starting in 2030 by requiring carbon capture and storage and co-firing clean hydrogen at power plants, two technologies still under development.

"That's an example of public policy going in the wrong direction," Matheson said. "It relies on technology that is not mature, and it relies on the hope that somehow, they're going to be in place in time. Hope is not a good strategy, and it sure isn't good policy."

In contrast, the U.S. Department of Agriculture's new \$9.7 billion voluntary program designed specifically for electric co-ops turned out more than double the expected participants to build and invest in clean energy resources. Electric co-ops oversubscribed to the Empowering Rural America (New ERA) with \$26 billion in project applications that would launch \$93 billion in investments across rural America, he said.

"Electric co-ops are answering the call for innovation," Matheson said. "We are going to continue to be the voice advocating for rational policy in terms of making sure when our members at the end of the line flip the switch, the light comes on, and when the bill comes at the end of the month, they can afford to pay it."

Source: NRECA



Photo credit: Jerry Mosemak, NRECA

## IAEC ANNOUNCES 2024 IOWA YOUTH TOUR INTERN

The Iowa Association of Electric Cooperatives has selected Kyra Wolterman as its 2024 Iowa Youth Tour intern.

Wolterman originally attended the 2022 Youth Tour as a student, sponsored by Raccoon Valley Electric Cooperative. She is graduating from Kuemper Catholic High School this spring and is heading to Bethany Lutheran College in Mankato, Minnesota, to study exercise science and play soccer.

"As this year's Youth Tour intern, I'm looking forward to meeting many more people and creating new lifelong friendships," she 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 Iowa Youth Tour on Facebook, Instagram and X (formerly known as Twitter).



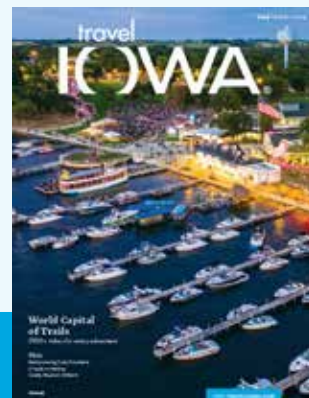


# EXPLORE IOWA THIS YEAR

There's no time like now to plan your spring and summer trips to explore Iowa. *Travel Iowa* has you covered with trip ideas, must-see attractions and outdoor adventures across the state.

The new year is bringing exciting destinations for travelers to Iowa: enhanced and accessible outdoor recreation, luxurious boutique lodging, unique theater experiences, and childlike wonder await in 2024.

Order your free 2024 travel guide at [www.traveliowa.com](http://www.traveliowa.com)



## HOUSEHOLD ITEMS TO REPURPOSE IN THE GARDEN

Spring is around the corner, which means gardening season will soon be here, too. Gardening can give a second life to all sorts of household resources. Here are a dozen re-tooling possibilities:

**Kitchen scraps.** Banana and vegetable peels, eggshells, coffee grounds, salad remnants and other organic food waste make ideal “fuel” for the compost pile along with yard waste such as leaves, spent plants and grass clippings.

**Old nylons.** Cut them into strips to make soft ties for tomato plants, for staking new trees, or for securing any tall, floppy vine or plant to a support.

**Old shirts.** Besides transforming into rags, these can be cut into strips and also used as soft plant ties.

**Newspaper, junk mail, office paper.** All can be shredded and added to the compost pile.

**Empty milk jugs.** Wash and reuse as plant protectors over young veggie-garden plants on cold nights. Or use the cut-off bottoms as seed-starting containers.

**Plastic soda bottles.** Cut a vertical slit and wrap the bottles around young trees, shrubs and vines to protect them against rodent chewing.

**Margarine tubs, yogurt cups, egg cartons.** Poke holes in the bottom and use as seed-starting containers.

**Foam meat trays.** These make excellent water-catching trays for homemade seed-starting containers or for growing seedlings in cell packs

that you've cleaned and recycled from previous plant purchases.

**Plastic wrap.** After food-bowl duty, save a few sheets to drape over seed-starting trays. It traps moisture like a mini-greenhouse.

**Aluminum foil, cardboard tubes from toilet paper and paper towel rolls.** Wrap around the base of squash-family plants to keep squash-vine borers from laying eggs at the base of plants.

**Used sandpaper.** Staple strips of it to the tops of raised-bed boards or other wooden-bed edging to repel slugs, which detest crawling over scratchy surfaces.

**Dehumidifier water.** Save on the water bill by using water from dehumidifiers on houseplants or outdoor potted plants.

### ENTER TO WIN

RECEIVE \$100 FOR A PUBLISHED PHOTO



### SEND US YOUR RURAL IOWA PHOTOS

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 \$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](mailto:editor@ieclmagazine.com) with “Cover Submission” in the subject line.

**NEW:** Please also include the name of the electric cooperative that serves you.

# WOMEN ARE INCREASINGLY POWERING ELECTRIC COOPERATIVES

BY SCOTT FLOOD AND ANN FOSTER THELEN

A generation ago, if a young woman expressed an interest in working in the energy industry, it's possible her friends, family, and even prospective supervisors would have steered her away. Keeping the lights on was traditionally seen as men's work.

Today, women represent an increasing share of the electric cooperative workforce and governance structure, and not just in traditional roles of the past. As you look around our

electric co-ops, you'll find women in every imaginable role – including lineworkers, engineers, financial managers, communicators, board directors and CEOs.

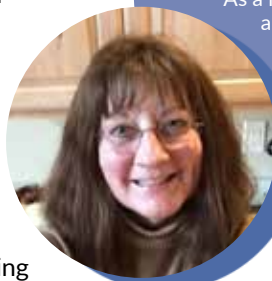
## Diverse perspectives are vital to the industry's future

International Women's Day is celebrated annually in March. It's a great occasion to recognize the accomplishments of the many women who are transforming electric co-ops and how they serve their local communities. It's hard to imagine a better career field for today's young women who are interested in making their communities better places to live, work and play.

"The competition for talent and skill shortages has highlighted the need to expand recruitment strategies to get a more diverse range of candidates," explains Desiree Dunham, workforce programs manager for the National Rural Electric Cooperative Association (NRECA). "The diverse experiences and

"Serving on my local electric co-op board allows me to make a difference to communities in our service area. As board members, we approve low-interest loans sponsored by USDA to support businesses creating jobs, hospitals, emergency services and many other projects. As a not-for-profit utility, we also return any margins above the co-op's financial needs to our members."

*Share Brandt*  
Board Director  
Butler County REC



perspectives of women contribute to more creative and effective problem-solving, which can be especially beneficial in navigating complex challenges and finding innovative solutions that cater to a broad range of consumer needs."

NRECA recently reported that nearly 90 electric co-ops are headed by female CEOs, including five in Iowa, adding that strengths like teamwork, problem-solving and communication that women often bring to leadership are particularly important to the industry's future.

"I like working at Farmers Electric because of the co-workers and the members we serve. I thrive in learning new things and working in the ever-changing electric industry is exciting. The family environment of the cooperative has proven to be successful, and I am so fortunate to be a part of it."

*Holi Weston*

CEO  
Farmers Electric Cooperative, Inc.



"I enjoy working for a cooperative because we hold ourselves to the highest standards of professionalism and integrity while maintaining a close-knit, family-friendly work environment. The co-op provides excellent benefits, paths for career advancement and the opportunity for longevity, which is great for a hometown girl who plans to stay! I like to think of working at the co-op as a paycheck with a purpose. We have a commitment to improving the quality of life for our families, friends and neighbors through the work we do each day."

*Anna See*  
Executive Assistant/  
Communications Coordinator  
Chariton Valley Electric  
Cooperative



"I enjoy serving on the state board for the electric cooperatives because we all follow the cooperative principles and do our best to work together to serve our co-op members. We never make a decision lightly, knowing it could have an immediate or long-term impact on our co-op and the members we serve."

I also believe the industry is – and will continue to be in the future – facing some of the biggest challenges we have ever faced. The demand for electricity continues to grow, with reliability being pushed to the limits and our energy sources being limited. I enjoy being a voice for these concerns with our members and legislators and having a seat at the table to find solutions to these challenges."

*Deena Moore*  
Board Director  
Southwest Iowa REC and  
the Iowa Association of  
Electric Cooperatives

"It is rewarding to know that the work we do has a tangible impact on our members' daily lives. This impact is not possible without investing in our number one asset, our employees. It is an honor and a privilege to be part of a locally owned organization that simply exists to serve our membership, contribute to our communities and be part of this great cooperative network."

*Teresa Floyd*  
CEO  
East-Central Iowa REC



Anna See (pictured) is a member of this year's class of the Cooperative Leadership in Iowa Program. The program was formed in 2023.

## Programs build awareness among students

Co-ops across America are actively working to build awareness among young women about the opportunities available to them. Some even host day camps for teens in which they get a behind-the-scenes look at what's involved with delivering electric power. Beyond the highly visible roles such as linework, participants learn about how people in areas as diverse as IT, finance, economic development and environmental compliance are vital to co-op operations. Without that exposure, those future co-op leaders probably wouldn't know those jobs exist. As the familiar adage reminds us, it's difficult to be what we cannot see.

Students are just one of the targets of such efforts. Dunham points to the priority the industry is placing on supporting career development for women. Mentorship programs and networking opportunities

create platforms for women to connect and share their experiences. The recently launched Women in Power Mentoring program for the electric co-op community provides mentorship and resources to support and guide women in their careers.

"These positive shifts need to be continuously reinforced with targeted outreach efforts, career awareness campaigns and support systems to enhance the entry points and career progression for women in co-ops," Dunham notes.

## Co-ops as best places to work

As nearly 20% of the nation's co-op workforce nears retirement age over the next five years and local cooperatives struggle with an ever-tighter job market, expanding the pool of potential workers is an

effective solution. At the same time, there are many reasons women who are entering (or reentering) the workforce should consider finding a place in the electric co-op world.

"Cooperatives are often recognized as 'best place to work' employers in their communities, offering competitive benefits, caring cultures and support for families," Dunham says. "Co-ops also have a solid commitment to strengthening inclusion and diversity, and women are often strong advocates for fostering a culture where all individuals are valued for their skills and expertise."

Scott Flood writes for the National Rural Electric Cooperative Association, the national trade association representing nearly 900 electric co-ops. Ann Foster Thelen is the editor of Iowa Electric Cooperative Living.



Visit [iowarec.org](http://iowarec.org) or scan this QR code to find co-op career opportunities.





## SAUSAGE & VEGETABLE DINNER

- 1 medium sweet potato
- 1 head broccoli
- 1½ tablespoons olive oil
- salt, to taste
- pepper, to taste
- Cajun seasoning, to taste
- 1 12-ounce package beef smoked sausage
- optional: cherry tomatoes, red onion

Dice sweet potato and cut broccoli into florets, toss in olive oil (along with optional ingredients, if desired) and spread on sheet pan. Sprinkle with salt, pepper and Cajun seasonings. Cut sausage into slices and add to sheet pan or rectangular baking dish. Note: Any type of sausage (substituted for beef) will work. Bake at 425 degrees F for 30 minutes or until veggies are tender. *Serves 4*

**Tiana Stroman • Merrill**  
North West Rural Electric Cooperative

## LEMON-PARMESAN GNOCCHI

- 16 ounces gnocchi
- 8 ounces mushrooms
- 1 bunch asparagus, cut into pieces
- 1 lemon, juiced
- 2 tablespoons olive oil
- ¼ cup Parmesan cheese, plus some for topping
- ½ teaspoon garlic, minced
- salt, to taste
- pepper, to taste

In large mixing bowl, combine gnocchi, mushrooms, asparagus, lemon juice, olive oil, ¼ cup Parmesan cheese and garlic. Season with salt and pepper. Stir well to combine. Pour mixture onto 15½x10½-inch baking sheet lined with aluminum foil. Spread into a single layer and bake at 400 degrees F for 35 minutes. Serve with extra Parmesan cheese, if desired. *Serves 4-5*

**Donna Johnson • Kanawha**  
Prairie Energy Cooperative



## OVEN "FRIED" CHICKEN

- 1 cup dried breadcrumbs
- 1 teaspoon onion powder
- ½ teaspoon garlic powder
- ¼ teaspoon dried oregano
- 1 teaspoon paprika
- ¼ teaspoon salt
- black ground pepper, to taste
- ½ cup nonfat buttermilk
- 4 bone-in chicken breasts, skin removed

In a shallow dish, combine breadcrumbs and spices. With a pastry brush or the back of a spoon, "paint" chicken breasts with buttermilk. Buttermilk can be substituted with plain yogurt. Roll chicken in seasoned breadcrumb mixture, and place in small baking sheet sprayed with nonstick cooking spray. Bake at 375 degrees F, about 45 minutes, until brown and internal temperature exceeds 165 degrees F. *Serves 4*

**Tina Ahlberg • Holland  
Grundy County Rural Electric Cooperative**

## TURKEY LATTICE PIE

- 3 8-ounce tubes refrigerated crescent rolls, divided
- 4 cups turkey, cooked and cubed
- 1½ cups shredded cheddar or Swiss cheese
- 3 cups frozen chopped broccoli, thawed and drained
- 1 10¾-ounce can condensed cream of chicken soup, undiluted
- 1½ cups 2% milk
- 2 tablespoons Dijon mustard
- 1 tablespoon dried minced onion
- ½ teaspoon salt
- dash pepper
- 1 large egg, lightly beaten

Unroll two tubes of crescent roll dough and separate into rectangles. Place rectangles in an ungreased 15x10x1-inch baking pan; press onto the bottom and ¼ inch up sides to form a crust, sealing seams and perforations. Bake at 375 degrees F for 5-7 minutes or until light golden brown. Meanwhile, in a large bowl, combine turkey, cheese, broccoli, soup, milk, mustard, onion, salt and pepper. Spoon mixture over crust. Unroll the remaining dough and divide into two rectangles. Seal perforations and cut each rectangle lengthwise into 1-inch strips. Using strips, make a lattice design on top of turkey mixture. Brush with egg and bake 17-22 minutes or until top crust is golden brown and filling is bubbly. *Serves 10*

**Dave Duit • Nevada  
Consumers Energy**

## RANCH PORK CHOP SHEET PAN SUPPER

- 2 tablespoons honey
- 2 tablespoons Worcestershire sauce
- 1 3.5-ounce package ranch dressing mix, divided
- 5 tablespoons olive oil, divided
- 1½ teaspoons salt, divided
- 1½ teaspoons pepper, divided
- 4 boneless pork chops
- 1½ pounds baby Yukon Gold potatoes
- 8 ounces green beans

Whisk together honey, Worcestershire sauce, 2 tablespoons ranch mix, 2 tablespoons olive oil, ½ teaspoon salt and 1 teaspoon pepper. Place pork chops on one end of sheet pan and brush honey glaze mixture on both sides of chops, set extra glaze aside. Halve potatoes lengthwise. In a bowl, combine potatoes, 2 tablespoons olive oil, 1 tablespoon ranch mix, ½ teaspoon salt and ¼ teaspoon pepper and toss together. Place potatoes in the center of sheet pan, next to chops. Roast chops and potatoes at 475 degrees F for 15 minutes. Mix green beans, 1 tablespoon oil, remaining ranch mix, ½ teaspoon salt and ¼ teaspoon pepper. Toss together and set aside. After 15 minutes, flip chops and brush with additional glaze mixture. Turn potatoes, then spread green beans in the empty space on pan. Return to oven and roast 7-8 minutes, until pork chops are done, and veggies are browned. *Serves 4*

**Joanna Schaefer • Larchwood  
Lyon Rural Electric Cooperative**

### WANTED:

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#### **Deadline is March 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](mailto:recipes@ieclmagazine.com)

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

**MAIL:** Recipes

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# WHAT YOU NEED TO KNOW BEFORE CONSIDERING SOLAR

BY MIRANDA BOUTELLE

Often, homeowners conflate installing solar at home with energy efficiency. But what most people don't realize is solar is not energy efficiency. Solar is generating energy. Energy efficiency is finding ways to use less energy. While these are not one in the same, both are thought of as beneficial to the environment and a way to save money.

If you are interested in installing solar, it is important to understand your motivations. It may be saving money, concern for the environment or both. Focusing first on energy efficiency can address both motivations.

Here are the five key energy efficiency

considerations to evaluate when adding solar to your home.

**① Energy consumption**  
Solar systems are sized based on a home's energy needs. The larger the system, the higher the cost. Before installing solar, make sure your home is as energy efficient as possible. That means it will use less energy and allow you to install a smaller solar system – which will save money and reduce your home's environmental impact.

Verify the efficiency of your lighting, HVAC systems and insulation. A fully insulated and air-sealed home uses less energy, and those insulation

measures are less expensive than solar panels. Finish these energy efficiency projects before installing solar.

**② Affordability**  
Consider your overall out-of-pocket expenses. The expected lifespan of a heating and cooling system is 15 to 25 years. Check the age and condition of your HVAC equipment and consider the expenses of replacement.

**③ Roofing**  
Consider the age, orientation and shade of your roof. It is more difficult and expensive to reroof a home with solar panels. Evaluate if the





roof will need to be replaced before the solar panels need to be replaced.

The best orientation for solar panels is south facing to receive direct light throughout the day. A shaded roof helps keep your home cool in the summertime but reduces solar energy production.

#### 4 Maintenance

A solar system doesn't last forever. Lifespans range from 25 to 30 years. As systems degrade over time, they produce less energy. Maintenance and repairs may be needed.

#### 5 Electric bills and storage

Solar is not "off the grid." Unless you plan to disconnect from your electric co-op, you will still receive a monthly bill.

Solar panels only produce power when the sun is shining. If you want power to your home at other times, like after dark, you need to be connected to your electric co-op or invest in battery storage system, which comes at an additional cost.

During power outages, don't assume solar panels will supply you with power. Typical solar interconnection to the grid requires panels to shut down during a power outage. This protects lineworkers from injury while making repairs.

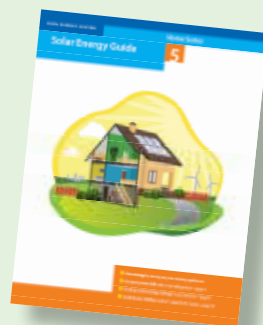
#### Contact your electric co-op

Solar contractors often work in several utility service territories and may not be familiar with your co-op's offerings, rate structures and interconnection agreements. Before signing an agreement, check with your electric co-op for local information rather than relying on what the contractor says.

As with any other system for your home, get bids from three contractors to compare equipment and pricing. Another option may be community-owned solar. Many electric co-ops offer community solar programs. You may have an option to enjoy the benefits of solar without the responsibilities of ownership and maintenance.

Understanding these considerations before installing solar will ensure you meet your money-saving and environmental goals.

*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.*



### SOLAR ENERGY GUIDE

Iowa's electric cooperatives are committed to helping member-consumers 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 interconnection requirements.

[www.iowarec.org/publications/solar-resources](http://www.iowarec.org/publications/solar-resources)

## TOP 10 CONSIDERATIONS BEFORE INSTALLING SOLAR

- 1 Address energy efficiency.** Implementing energy efficiency measures in advance can help reduce your overall energy or water consumption, and subsequently, the size of your solar system.
- 2 Do your homework before writing a check.** Talk to your electric co-op at the outset of the process. Then speak with credible, reputable sources who are skilled professionals that will help guide you through the process.
- 3 Know your co-op's rate structure and policies.** Your co-op will help you understand the rate structure and what type of charges are likely to be incurred. They will also let you know how you will be compensated for the excess, unused energy that is generated by your solar system.
- 4 Analyze your electric load.** Understanding your electricity use and overall energy needs will help determine if solar is a good investment for you.
- 5 Determine costs upfront.** You will likely be responsible for initial upfront costs to install the system, as well as maintenance and repair costs. Doing your homework upfront will help determine if it is economical for your energy needs.
- 6 Research incentives and tax credits.** Visit with your co-op to see if there are financial incentives to offset your investment costs. These are often driven by laws and policies and can vary on the type and size of system.
- 7 Understand responsibilities.** A variety of parties are involved in making a solar project a reality, so it's important to know exactly what tasks and costs you're responsible for.
- 8 Know safety requirements.** Solar is connected to the grid, so it's important that you work with your co-op to ensure you're meeting their requirements to keep the grid reliable and safe.
- 9 Choose a reputable vendor.** It is important to find a reputable installer who will give you realistic expectations. Ask for references, check reviews and ask for third-party input.
- 10 Keep thorough records.** Establish a thorough record-keeping process to retain all data and research you gather.

## BEWARE OF SOLAR SCAMS

Before working with any vendor, Iowa's electric cooperatives encourage you to do your homework to ensure you choose a reputable provider.



If you have a complaint regarding solar installation or financing, you can complete and submit an electronic complaint at [bit.ly/3usfVj7](http://bit.ly/3usfVj7).

Consumers can also call the Iowa Attorney General's Consumer Protection Division at 515-281-5926 or 888-777-4590 or email [consumer@ag.iowa.gov](mailto:consumer@ag.iowa.gov).

# ADVANCEMENTS IN NUCLEAR ENERGY

BY JENNAH DENNEY

The top priorities of Iowa's electric cooperatives are providing reliable and affordable electricity to our member-consumers. To meet the growing energy needs of our local communities, we continually explore innovative solutions. With advancements in technology and safety measures, nuclear offers potential for sustainable electricity generation.

## The current state of nuclear power generation

Nuclear energy, often overshadowed by solar and wind energy, provides a reliable source of power that can be generated at any time. Over the past two decades, nuclear power has reliably and economically contributed nearly 20% of electrical generation in the U.S. It remains the single largest contributor – accounting for more than 70% – of non-greenhouse gas-emitting power generation in the country.

Nuclear energy currently accounts for about 15% of the electricity delivered by electric cooperatives, and more than two-thirds of all co-ops include a percentage of nuclear energy in their local fuel mix.

There are 92 nuclear reactors operating in the U.S., and nuclear energy has been powering the nation's grid for the past six decades.

## Current and developing nuclear technologies

Light water reactor technologies, known as LWRs, comprise the existing U.S. nuclear fleet and have a remarkable safety and performance record. An example is the Vogtle Unit 3, which commenced commercial operations in the summer of 2023. It is the first newly constructed nuclear unit in more than 30 years, can power an estimated 500,000 homes and businesses, and is currently the nation's largest generator of clean energy. The project created numerous jobs during its construction phase and laid the foundation for

future Small Modular Reactor (SMR) deployments across the country.

SMRs are seen as a promising alternative to traditional large-scale nuclear power plants, offering shorter construction times and increased safety. They can be easily transported and located in areas that wouldn't support a full-scale nuclear plant, providing greater flexibility in energy production.

In addition to SMRs, some companies are developing microreactors, a Generation IV technology that is 100 to 1,000 times smaller than conventional nuclear reactors. A microreactor can operate as part of the electric grid, independently from the grid, or as part of a microgrid, providing heat for industrial applications. Most microreactors can be transported and hauled by a tractor-trailer.

## Understanding the pros and cons

Like any other power source, nuclear energy has its pros and cons. The most significant benefit is that nuclear power plants are a carbon-free source of electricity, emitting no greenhouse gases. Additionally, these plants provide a reliable source of power, especially during extreme weather

conditions. They operate continuously and have a relatively small physical footprint compared to other forms of energy generation. Nuclear plants in the U.S. have the highest maximum capacity for power output, at 92%. Compare that to 49% for natural gas, 44% for coal, 34% for wind and 24% for solar.

Safety has always been a concern in the nuclear energy sector. Generation III+ nuclear reactor designs, like the Vogtle Unit 3, include safety features that do not require sustained operator action or electronic feedback to shut down the plant safely in an emergency. These enhanced designs are more resilient to accidents and have a reduced environmental impact. By prioritizing safety, nuclear energy can be harnessed responsibly without compromising public well-being.

As electric cooperatives look ahead to long-term energy solutions, embracing innovation will play a key role in empowering local communities and providing our members with reliable and affordable electricity.

*Jennah Denney writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing nearly 900 local electric cooperatives.*



The Vogtle Unit 3 commenced commercial operations in the summer of 2023 and is the nation's first newly constructed plant in three decades.

Photo Credit: Nuclear Regulatory Commission



# SPRING CLEANING TIPS TO MAXIMIZE EFFICIENCY

BY MIRANDA BOUTELLE

Spring is a great time to enhance energy efficiency at home. Adopting simple yet effective energy-saving strategies during spring-cleaning routines can create an efficient living environment that may also lower utility bills and extend the life of heavily used appliances.

## **TIP** Protect equipment and maximize efficiency with a clean filter

Even though it's out of sight, don't leave it out of mind. Check the filter in your HVAC system. Your furnace worked hard during the winter. Ensuring your system has a clean filter is a low-cost and easy way to protect your equipment and maximize efficiency. A dirty furnace filter can cause your system to work harder than necessary, decreasing efficiency and shortening the system's life.

While the filter is easy to replace yourself, you should have your air conditioning serviced and professionally cleaned. Both the indoor and outdoor units should be cleaned. Dirty refrigerant coils reduce efficiency. This also applies to heat pumps and ductless heat pumps, also known as mini-split systems.

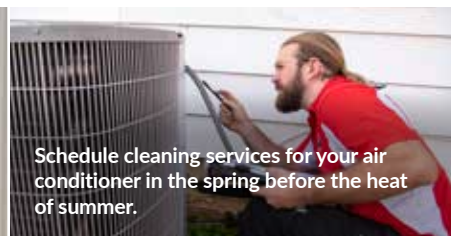
## **TIP** Schedule checkups before the heat arrives

HVAC contractors get busy responding to calls for repairs during the summer heat. Scheduling cleaning services for your air conditioning in the spring – before the heat of the summer – can ensure the work gets done before the rush and even save you money. Some HVAC contractors offer special discounts for cleaning services in the milder months, which helps fill their schedules and keep their technicians working.

Window AC units can get dirty, too. They can be cleaned with the proper tools, cleaning agents and know-how. Always unplug it before cleaning, and



Replacing your furnace filter is a low-cost and easy way to protect your equipment and maximize efficiency.



Schedule cleaning services for your air conditioner in the spring before the heat of summer.



While cleaning light fixtures and fixture covers, check your bulbs and replace any incandescent or compact fluorescent with energy-saving LEDs.



A clean oven heats more evenly and quickly, providing lower energy use.

wait until it is completely dry before plugging it back in again. Take the time to clean it properly in the spring before you need it in the summer.

## **TIP** Brighten your space

Cleaning light fixtures and fixture covers can brighten your space by removing dust and grime collected during the winter. While you're at it, check your bulbs and replace any incandescent or compact fluorescent with energy-saving LEDs. Although they tend to cost a little more, LEDs last longer and use less energy.

According to the U.S. Department of Energy, good-quality LED light bulbs are expected to last 30,000 to 50,000 hours. A typical incandescent lamp lasts about 1,000 hours, and a comparable CFL lasts 8,000 to 10,000 hours. To put this into everyday use, if you have an LED light on for 10 hours per day, it can last 13 years compared to only about three months for incandescent bulbs and about two-and-a-half years for CFLs.

## **TIP** Clean the oven and windows

A clean oven heats more evenly and quickly, providing better results and lower energy use. A clean oven window allows you to see the food and how it's cooking without opening the oven door, which wastes energy.

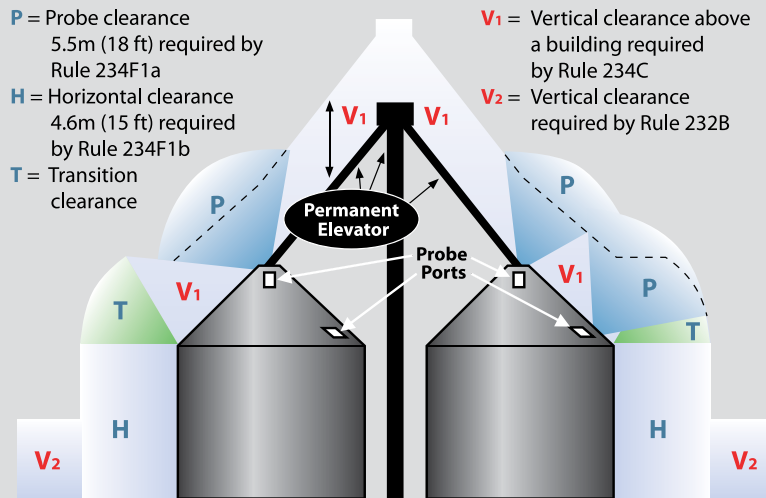
If cleaning windows is on the list, check the seals and sash locks to ensure they close tightly. Check for any areas that need caulking or sealing to reduce drafts. Sealing around windows contributes to year-round comfort in your home. Clean windows also allow more light into the home, reducing the need to turn on lamps and overhead fixtures.

Spring is the ideal time to declutter, deep clean and implement practices that tidy our homes and reduce energy consumption.

*Miranda Boutelle writes on energy efficiency topics for the National Rural Electric Cooperative Association, the national trade association representing nearly 900 electric co-ops.*

## Clearance envelope for grain bins filled by permanently installed augers, conveyors or elevators

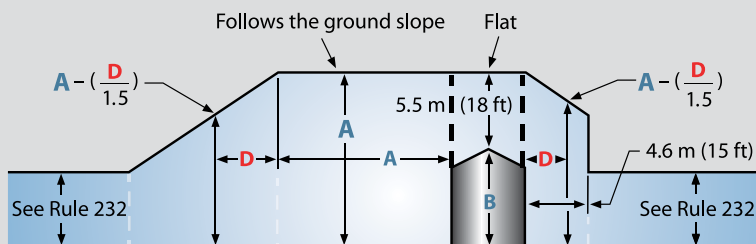
- P** = Probe clearance  
5.5m (18 ft) required by Rule 234F1a
- H** = Horizontal clearance  
4.6m (15 ft) required by Rule 234F1b
- T** = Transition clearance
- V<sub>1</sub>** = Vertical clearance above a building required by Rule 234C
- V<sub>2</sub>** = Vertical clearance required by Rule 232B



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## Clearance envelope for grain bins filled by portable augers, conveyors or elevators

### ELEVATION

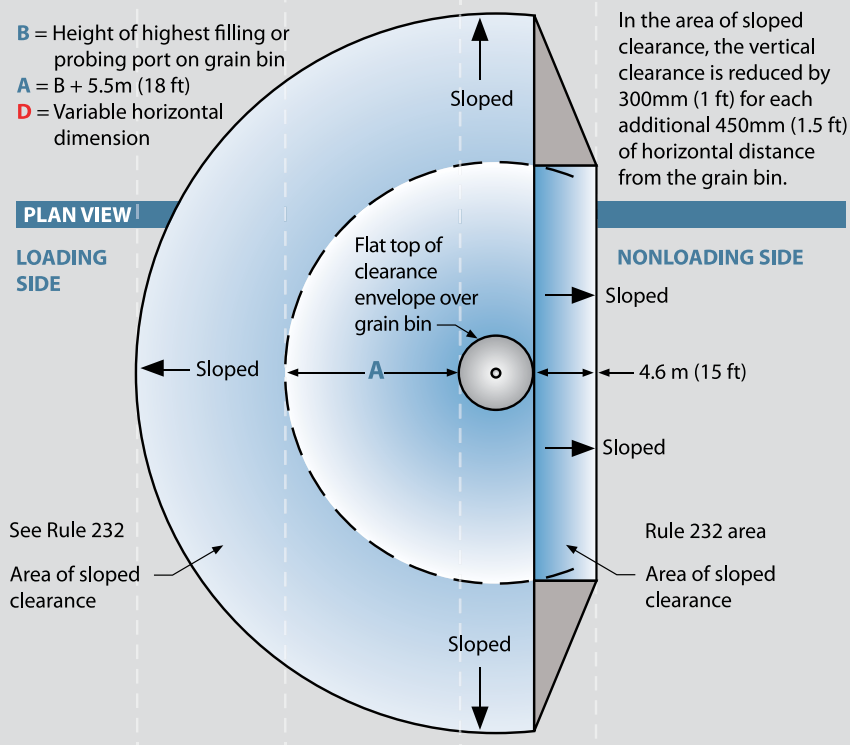


- B** = Height of highest filling or probing port on grain bin
- A** = B + 5.5m (18 ft)
- D** = Variable horizontal dimension

In the area of sloped clearance, the vertical clearance is reduced by 300mm (1 ft) for each additional 450mm (1.5 ft) of horizontal distance from the grain bin.

### PLAN VIEW

#### LOADING SIDE



#### NONLOADING SIDE

## MAINTAIN PROPER CLEARANCE AROUND GRAIN BINS

The state of Iowa requires specific clearances for electric lines around grain bins, with different standards for those filled by portable and permanent augers, conveyors and elevators.

According to the Iowa Electric Safety Code found in Iowa Administrative Code Chapter 199 – 25.2(3) b: An electric utility may refuse to provide electric service to any grain bin built near an existing electric line which does not provide the clearances required by the American National Standards Institute (ANSI) C2-2017 "National Electrical Safety Code," Rule 234F. This paragraph "b" shall apply only to grain bins loaded by portable augers, conveyors or elevators and built after Sept. 9, 1992, or to grain bins loaded by permanently installed augers, conveyors, or elevator systems installed after Dec. 24, 1997. The Iowa Utilities Board has adopted this language.

Your local electric cooperative is required by the Iowa Utilities Board to provide this annual notice to farmers, farm lenders, grain bin merchants and city and county zoning officials. The drawings on this page show the required clearances, but your co-op's policies may be more restrictive. If you have any questions concerning these regulations – or what needs to be done before you begin placing a new grain bin or moving an existing one – please call your electric co-op for help.

These drawings are provided as part of the Iowa electric cooperatives' annual public information campaign and are based on the 2017 Edition of the National Electrical Safety Code. To view the actual drawings, refer to that publication.

Every care has been taken for the correctness of the contents of these drawings. However, the Iowa Association of Electric Cooperatives and its member cooperatives accept no liability whatsoever for omissions or errors, technical inaccuracies, typographical mistakes or damages of any kind arising from the use of the contents of these drawings, whether textual or graphical.

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# VIEW FROM THE TOP: LIVING A LIFE OF ADVENTURE AND PURPOSE

BY DARCY DOUGHERTY MAULSBY

Have you ever been bold enough to have a dream so big everyone thinks it's impossible? Charlie Wittmack has.

This Des Moines-area attorney climbed Mount Everest, swam the English Channel, and rode a bicycle 8,000 miles across Europe and Asia to Kathmandu, Nepal. He shared remarkable stories of his "World Triathlon" during a program at the Lake View Public Library in early January, and I was riveted.

There was an overflow crowd that Saturday afternoon. None of us were super-athletes looking for tips to gain the winning edge. Yet that's exactly what Wittmack gave us, thanks to his ability to translate lessons from endurance sports into real life. Consider these gems:

**1 Take small steps to reach big goals.** When Wittmack was growing up in the Boone area, he read a book about Captain Matthew Webb, an Englishman who was the first recorded person to swim the English Channel. The story captivated Wittmack. Why not try it himself? What if he made it part of the world's toughest triathlon? To fund his dreams, Wittmack started working various jobs, making \$8 per hour pouring concrete. The young adventurer also secured a loan from Bankers Trust. He says, "I learned early on the importance of taking small steps to get me from where I was to where I wanted to be."

**2 Do the next right thing.** When Wittmack was completing the World Triathlon, his body burned about 14,000 calories a day. Sometimes his epic odyssey almost overwhelmed him. When it was time to bicycle from Europe to Asia, Wittmack didn't dwell on the hardships inherent in crossing 11 countries, including a massive desert. "Instead of focusing on how



Charlie Wittmack (far right) visits with attendees of his January speaking event at the Lake View Public Library.

I'd get from France to Kathmandu, I just got on the bike and made it go forward," he shares.

**3 Seek signs of hope.** Wittmack understands the allure of giving up. During his 8,000-mile bicycle journey to Nepal, he decided to call it quits in the desert. As he pedaled to the next town to find the nearest train station, he met some French adventurers on an around-the-world walking journey. "There was something really different about these guys' thinking. They said, 'Oh, you're the American who's always in such a hurry,'" says Wittmack, who credits this interaction with renewing his hope and motivating him to press on toward his goal. "We all have times in life when we're going through a desert. Look for signs of hope, especially when it feels like your destination is a long way off."

**4 Don't give up.** There are good days and bad days, whether you're training for a triathlon or just living daily life. During his grueling World Triathlon quest, Wittmack was diagnosed with amoebic dysentery, pulmonary anemia and cerebral

anemia. If pushing his body to the limit wasn't enough, he was hit by a car in Kazakhstan and lost vision in his right eye. "Take advantage of the good days to charge your batteries for the tough days," he advises.

**5 Find the purpose beyond your passion.** Climbing Mount Everest (the highest point on Earth, at 29,035 feet above sea level) as part of the World Triathlon became more than a personal quest for Wittmack. During his time in Nepal, he was troubled to learn that thousands of newborns and young children in the country die each year from preventable causes. He has helped raise money for Save the Children, an international organization that helps kids get a good start in life. He adds, "When I reached the top of Mount Everest, I realized what a small piece of creation I am, yet what a difference we can make if we commit to being part of the change."

Indeed, Charlie. Thanks for the inspiration from the top of the world.

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

Visit our website at [www.ieclmagazine.com](http://www.ieclmagazine.com)

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