

living with energy IN IOWA

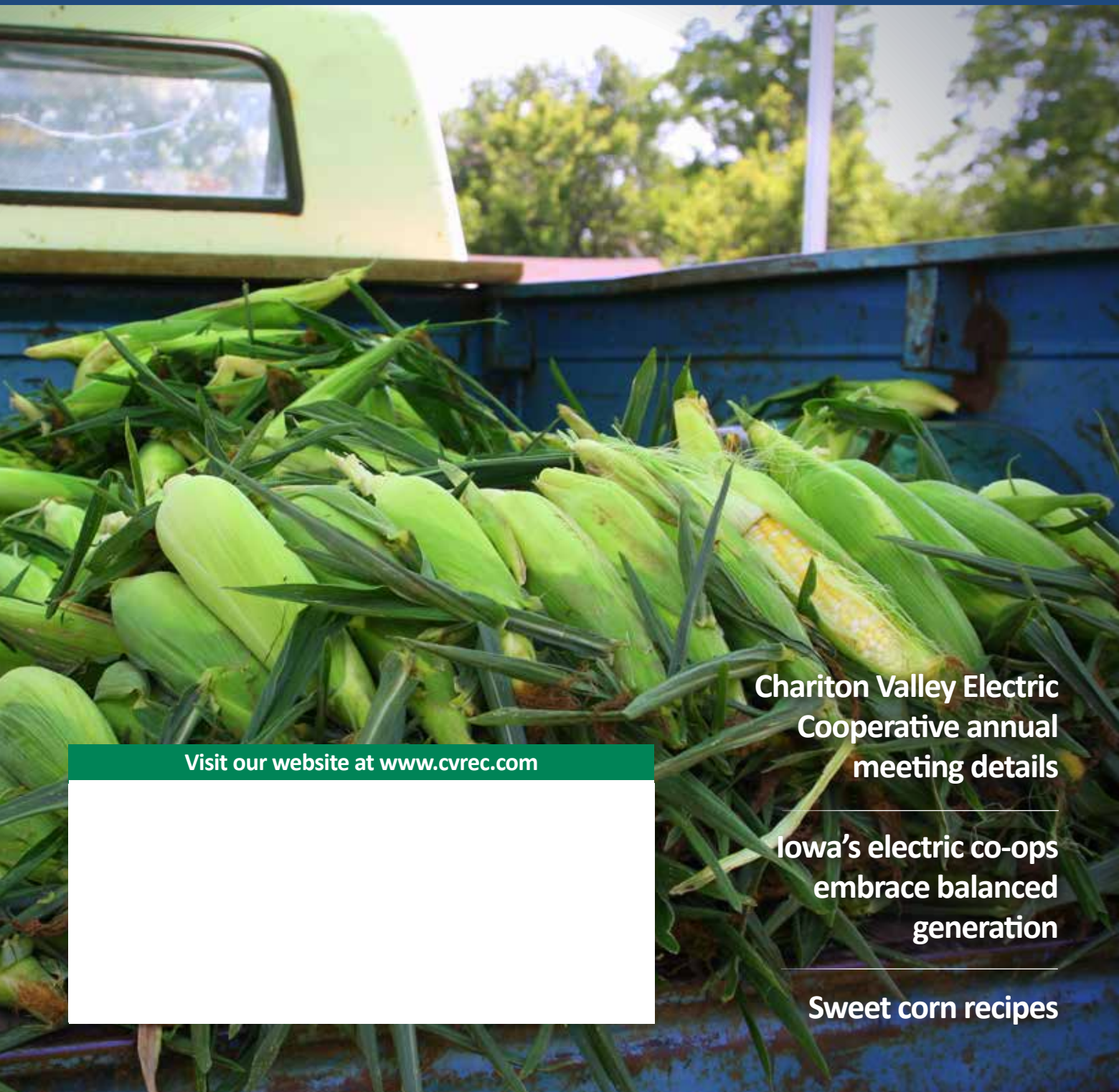
JULY 2021



Chariton Valley
Electric Cooperative, Inc.

Your Touchstone Energy Cooperative

CVEC assists CJ3 Foundation through Sharing Success Program ▶ See Page 5



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Chariton Valley Electric
Cooperative annual
meeting details

Iowa's electric co-ops
embrace balanced
generation

Sweet corn recipes

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**HIS JOB IS
DANGEROUS
ENOUGH.**

When you see utility crews at work, slow down and move over. You have the power to protect a life.



**MOVE OVER
SLOW DOWN**

Electric cooperatives disappointed with legislative session

BY KEVIN CONDON

As lawmakers and Gov. Kim Reynolds tout the 2021 Iowa legislative session's legitimate advances in public policy that benefit rural Iowans, one area where progress will go unclaimed is in the interests of Iowa's electric cooperatives.

Although the session went three weeks into overtime, absent from debate was the opportunity to have worthy and robust discussions on two key priorities for Iowa's electric co-ops and their member-consumers. Establishing or changing laws isn't easy and can take time. With that said, we're disappointed that policies pertaining to vegetation management and the sales tax code inequities co-ops face are not new issues being raised by rural electric cooperatives (RECs).

Lack of vegetation management standards

In the January edition of this column, I detailed the issue surrounding vegetation management distances and how the August 2020 derecho exposed part of our concerns. We hoped that lawmakers would have recent and ample evidence of the need to set a statewide safety and reliability standard for distances that electric co-ops could perform tree trimming and other management practices.

Unfortunately, despite our best efforts, the same opposition groups that prevented the legislation from becoming law a few years ago were able to keep this renewed effort from reaching the House and Senate for a full debate. Sadly, misinformation and scare tactics about the proposal won the day, and the state will continue to lack a standard that provides greater safety for co-op members and linemen while increasing reliability of electric service to rural Iowa.

Sales tax code inequities continue

Further, RECs were disappointed when provisions to resolve a sales tax inequity impacting electric co-ops included in a proposal put forward by the House were stripped out of the final legislation by Senate negotiators. In what appears to be an oversight from legislation passed in 2018, not-for-profit utilities like RECs have been subject to a tax on digital goods and services that for-profit, investor-owned utilities



(IOUs) are exempt from. It is estimated that rural electric member-consumers are paying \$250,000 more in sales taxes through their electric bills than ratepayers served by IOUs.

We believe resolving the inequity was certainly worthy of inclusion in a tax proposal that included tax provisions for Iowa's non-profit food banks and casinos, both of which will have General Fund impacts, just as the REC proposal would. We congratulate both of those entities for securing a place in the legislation. We also caution those who might claim the potential for a "slippery slope" in resolving this sales tax inequity issue.

To be clear, the electric co-ops appreciate the role of the Legislature and are grateful to those lawmakers who are willing to put their name on a ballot and serve. In our estimation, they continue to deserve our respect; but when it comes to our concerns this session, RECs are not taking any victory laps.

We look forward to developing our policy goals for the 2022 Iowa legislative session and will enjoy planning for our traditional and effective in-person events with lawmakers. We hope they are prepared to answer friendly but direct questions about the lack of progress on these issues. We hope our electric cooperative advocacy on behalf of the

650,000 Iowans we serve throughout all 99 counties will result in more favorable outcomes next year. ⚡

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

EDITOR'S CHOICE CONTEST

Win a \$100 home improvement gift card!



Home improvement projects can boost the curb appeal, resale value and energy efficiency of your home. We'll award one lucky winner with a \$100 gift card from a local business or retailer of your choice for a home improvement project! ⚡

Visit our website and win!

Enter this month's contest by visiting www.livingwithenergyiowa.com no later than July 31, 2021. 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 Arbor Day tree packages from the May issue were:

- Gregg Hoins, Allamakee-Clayton Electric Cooperative
- Lavern Hoeper, Butler County REC
- Rose Lennie, Chariton Valley Electric Cooperative
- Gary L Payton, Franklin REC
- Timothy Colburn, Grundy County REC
- Mark Schwartz, North West REC
- Kennon Goedken, Osceola Electric Cooperative
- Emily Mikesch, Prairie Energy Cooperative
- Kyle Leonard, Southwest Iowa REC
- Jeff Gropper, T.I.P. REC

A balanced fuel mix promotes power reliability

BY LEILANI TODD

Chariton Valley Electric Cooperative has always been a proponent of renewables and has supported a diverse portfolio fuel mix for decades. Even though we already have a number of renewable resources, the energy industry is undergoing a dramatic transformation as consumer demand for more renewable energy sources grows, and innovation and technology continue to advance exponentially. You are likely witnessing this energy evolution firsthand.

In driving across the region, you may have noticed fields of solar panels, along with an increase in solar panels on your neighbors' roofs. Maybe you have heard about the pending changes in the transportation sector, with most major vehicle companies announcing plans to offer more electric vehicles at more affordable prices.

Consumer interest in renewable energy is strong and growing. In addition, national studies indicate that consumers expect companies to operate ethically and responsibly, including when it comes to the environment.



At Chariton Valley Electric Cooperative, we have always put the good of our community first. While our primary function is to provide reliable and affordable energy to our members, we are more than an electricity provider. Because we are a cooperative, our mission is to enrich our members' lives and serve the long-term interests of our community. We feel we are doing both by investing in renewable energy sources.

Green energy is certainly not new. Solar, wind and hydropower have been around for decades. However, the recent innovations and advances in renewable technology have led to sharp decreases in cost, making it more feasible and accessible to the individual member. In recent years, CVEC has been able to adjust its fuel mix by utilizing more renewables. Today, 29% of our fuel mix is comprised of renewable energy sources, the majority of which are wind and hydro. That is an increase of 21% compared to 15 years ago.

However, to borrow a nautical analogy, it takes a long time to turn the direction of a large ship – and changing the energy mix we use to power homes and businesses does not happen overnight. While renewable energy use is increasing, we will still depend on traditional

forms of energy for baseload to keep power flowing reliably to your home. After all, solar and wind energy are referred to as “intermittent” power since the sun does not always shine and the wind does not always blow. This fact, coupled with the growing demand for renewables, creates its own challenges. That is why there is real value in maintaining a balanced mixture of fuel types to ensure reliability and resiliency, while meeting growing electricity demand.

As the energy industry continues to evolve, Chariton Valley Electric Cooperative is striving to take advantage of technology advances and market opportunities as they become available. This means CVEC can leverage the flexibility of the grid to offer a broader range of renewable power selections as we continue to bring safe, reliable and affordable power to our community.

Albert Einstein once observed, “Life is like riding a bicycle. To keep your balance, you must keep moving.” For CVEC to meet the growing demand for renewable energy and ensure the reliability of our power supply, we must constantly make operational adjustments as we strive for balance and a brighter future for our members. ⚡

Leilani Todd is the CEO/general manager of Chariton Valley Electric Cooperative.



Chariton Valley Electric Cooperative, Inc.
Your Touchstone Energy® Partner



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Sharing success through community

One of Chariton Valley Electric Cooperative's most unique and exciting community programs is the CoBank Sharing Success grant program. Aimed at supporting local communities and people, the grant is made possible by Chariton Valley Electric's governing board of directors, in partnership with CoBank – a national nonprofit cooperative bank owned by the rural American cooperatives it services.

CoBank's \$4 million Sharing Success fund matches charitable contributions made by its cooperative members to local nonprofits in their communities. The matching grant program is designed to celebrate the vital role cooperatives play in individual communities across the country. Since its inception in 2012, the program has generated more than \$56 million in total charitable donations, primarily in rural areas across the country.

CVEC, Northeast Power and CoBank have partnered again to fund a project right here in our territory through the Sharing Success grant program and the Northeast Power Partnering Request program.



Pictured from left to right: Eric Thomas, CJ3 Foundation founder and director; Leilani Todd, CVEC CEO/general manager; Allie Bennett, Northeast Power manager of economic development and member services; Abe Gray, Northeast Power CFO; Tod Faris, CVEC member services and economic development manager; and Dave Thomas, CJ3 Foundation board member.

CVEC is honored to help the **CJ3 Foundation** that provides services, support and advocacy to U.S. military service members, veterans and disabled veterans, law enforcement, fire and emergency/first responders who need and/or require assistance with a donation total of \$25,000. These funds will assist the CJ3 Foundation in renovating Kendall Place in Albia, making it handicap-accessible for veterans and first

responders who can receive mental health and wellness services at no cost.

"Rural communities and cooperatives like Chariton Valley Electric are lucky to have the generous support of CoBank and we are thankful for the contributions enabling us to help make our communities a better place to live and work," says Leilani Todd, CVEC CEO/general manager. ⚡

HOW YOUR CO-OP WORKS

Watch for annual meeting materials

With the ongoing pandemic, CVEC's board of directors decided this year's annual meeting will be held virtually on Aug. 2, 2021.

Please watch your mailbox for your 2021 Annual Meeting materials, which will include:

- Official annual meeting notice
- Reports of officers, directors and committees
- Director candidate information and voting materials



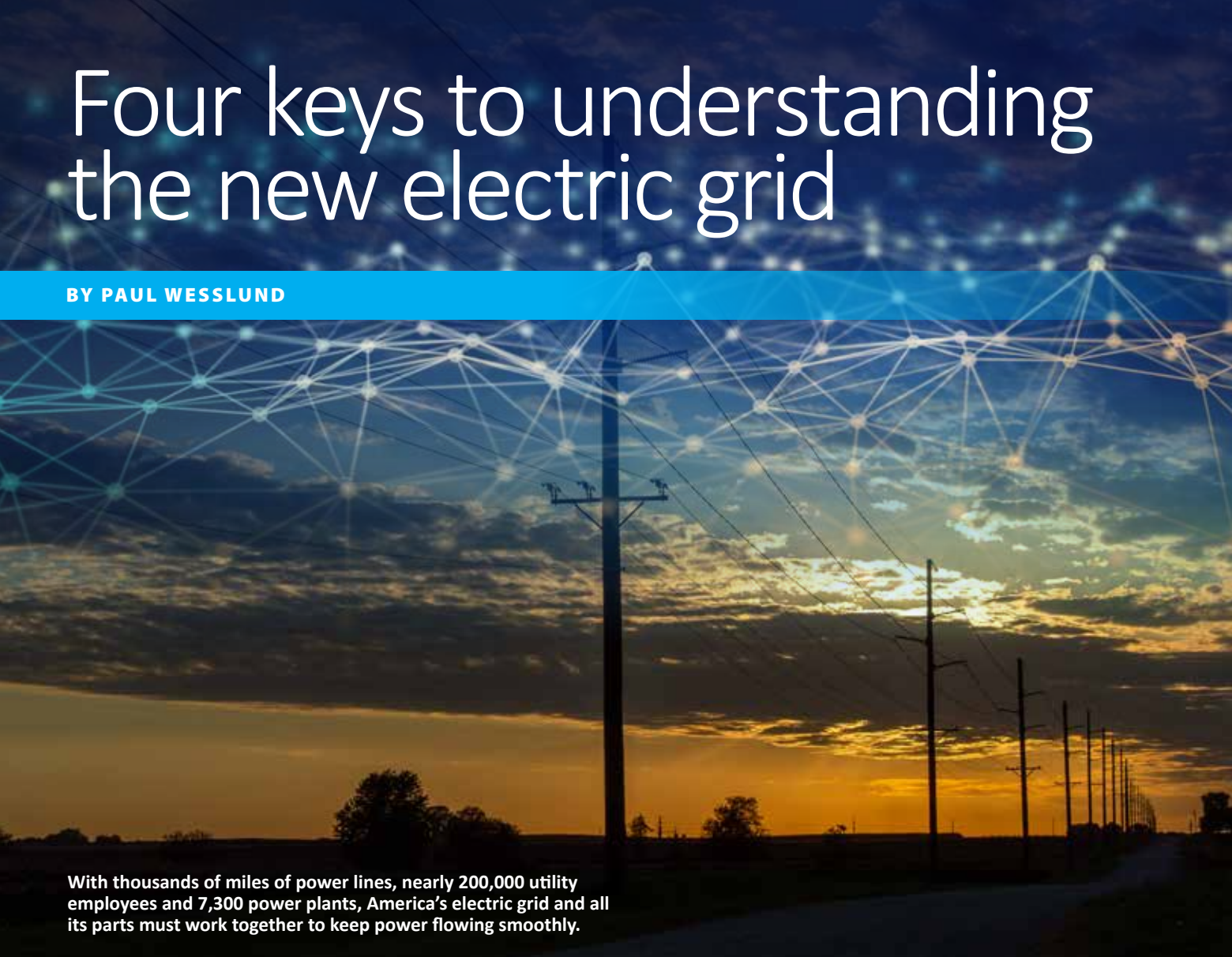
- Prize list
- Luck of the Draw Scholarship information
- And more!

Please note, the patronage checks you normally pick up at the annual meeting will be mailed to the address on your electric account or credited against your account.

We hope to see your participation at our virtual annual meeting! If you have any questions, please contact our office at 641-932-7126 or 800-475-1702. ⚡

Four keys to understanding the new electric grid

BY PAUL WESSLUND



With thousands of miles of power lines, nearly 200,000 utility employees and 7,300 power plants, America's electric grid and all its parts must work together to keep power flowing smoothly.

America's electric grid is often called the most complex machine in the world. That's not a stretch when you think about what it does: it runs your refrigerator and charges your phone, all from a ray of sunshine, a pile of coal, falling water or a prairie breeze.

In between those starting and ending points are 160,000 miles of high-voltage transmission lines, millions of miles of low-voltage power lines, 7,300 power plants, nearly 200,000 electric utility employees, thousands of electrical substations and transformers that adjust voltage for the cross-country trip along transmission lines, then back down before it enters your house – and all these parts must work together to keep power flowing safely. In addition, this complex network is adapting to weather patterns,

increasing cybersecurity threats, consumer expectations and additional decentralized power sources like rooftop solar panels.

Those are big changes for such a vast and intricate system. “But the silver lining is that technology is available to help address the changes,” says Venkat Banunarayanan, vice president of Integrated Grid Business & Technology Strategies with the National Rural Electric Cooperative Association (NRECA).

For all its complexity, the electric grid can be described in three major parts: a power source (like a natural gas plant or wind turbine); the wires and equipment that deliver power; and a home or business that receives the power.

To understand the modern grid more deeply, here are four ways it's adapting to the world's new realities.


1 Resilience in the face of more severe weather

Last year was the busiest recorded hurricane season along the Atlantic Coast. Wildfires are increasingly intense, especially in the West, and ice storms and cold weather surprised the South this winter.

These changes call for new ways to make sure the lights stay on.

Electric utilities are increasing grid resilience by integrating weather forecasting with other smart technologies that monitor electric current and analyze how to respond. NRECA's Banunarayanan calls this “predictive technology.”

By knowing how weather will affect power equipment, he says, “an electric co-op can preposition work crews so they can quickly



respond to the outage, and they can redirect the flow of electricity to take an alternate route to minimize the duration of a power outage.”

2 Strengthening cybersafety

Cybersecurity measures have become standard operating procedure for utilities to protect against cyberattacks. Electric co-ops and other utilities work closely with the U.S. Department of Homeland Security to monitor and strengthen defenses.

“Utilities are constantly improving to make sure they are more cyber-resilient,” says Banunarayanan.

Electric co-ops also urge consumer-members at home to protect themselves from hackers. When devices like printers and smart TVs connect to the internet, that actually makes them part of the electric grid.

3 More power to consumers

Many utilities have voluntary programs that manage electric loads by turning off water heaters or air conditioners for short periods of time. Those programs add another layer of coordination. Additionally, homeowners are installing solar panels on their roofs or in their backyards, with some even selling excess electricity back to the utility – over the electric grid.

4 Utilities keeping up with the change

Large fields of wind turbine farms and solar power arrays require building transmission lines to new locations. They also involve planning for a kind of power that might only operate when the sun shines or the wind blows. These changes are necessary and helpful, but they are also expensive.

Annual spending on the U.S. transmission system has increased from \$9 billion a year in 2002, to \$40 billion in 2019.

But that spending is paying off.


In 2017, Americans experienced about eight hours of power interruptions, according to the Energy Information Administration. By 2019, that was down to five hours.

“Power outages have been going down because there’s investment being made to increase the robustness of the grid,” says Banunarayanan. “I expect the reliability of the grid to increase.” ⚡

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. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56% of the nation’s landscape.



Last year was the busiest recorded hurricane season along the Atlantic Coast. Wildfires are increasingly intense, especially in the West, and ice storms and cold weather surprised the South this winter. These changing weather patterns call for new ways to make sure the lights stay on.



The electric grid is constantly adapting to changing weather patterns, increasing cybersecurity threats, consumer expectations and additional decentralized power sources like rooftop solar panels.

FAVORITE

SWEET CORN

RECIPES



Corn Kernels Source:
Iowa Corn Growers
Association, Iowa
State University
Extension and
Outreach

Corn and Black Bean Salsa

- 2 cups sweet corn, cooked
- 1 can black beans, rinsed and drained
- 1 scallion, sliced
- ½ cup tomatoes, diced
- ½ red bell pepper, diced
- 1 lime, zested and juiced
- 2 tablespoons canola oil
- ¼ teaspoon seasoned salt
- ¼ teaspoon black pepper
- ¼ teaspoon chili powder
- sprinkle cayenne
- sprinkle garlic powder

Mix all ingredients together, adjust seasonings to taste and serve. This recipe is great as a salsa with tortilla chips or on tacos or burritos. It is also a great stand-alone side salad or served on greens.

Chris Daniels • Casey
Guthrie County Rural Electric
Cooperative Association

Curried Creamy Corn

- 3 teaspoons butter
- 2 cups fresh sweet corn
- 2 tablespoons green peppers, chopped
- 2 tablespoons onions, chopped
- ½ teaspoon curry powder
- ¼ teaspoon salt
- dash of pepper
- 3 ounces cream cheese
- ⅓ cup milk

In a saucepan, melt butter then add corn, peppers, onions, curry powder, salt and pepper. Cover and cook over medium heat for 8-10 minutes or until corn is tender. Add cream cheese and milk, stir over low heat until combined. *Serves 4*

Gina Lloyd • Linden
Guthrie County Rural Electric Cooperative Association

Cheesy Creamed Corn

- 2 quarts frozen sweet corn
- 4 ounces cream cheese, cubed
- 2 tablespoons butter or margarine
- 2 tablespoons milk
- 1 tablespoon sugar
- 4 slices American cheese
- 1½ teaspoons salt

Cook and drain corn. Stir in remaining ingredients. Cook and stir over medium-low heat until butter and cheese are melted. *Serves 8*

Emily Rassi • Rock Rapids
Lyon Rural Electric Cooperative

Garden Fresh Sweet Corn Salsa

- 1 cob sweet corn
- ¼ cup cilantro, diced
- 3 garlic cloves, diced
- 1 jalapeno, diced
- juice of ½ lime
- ¾ cup yellow or red onion, diced
- 2 cups fresh tomatoes, chopped
- ¼ teaspoon salt
- tortilla chips

Cut cooked corn off the cob. Toss all ingredients except for chips in a bowl. Serve fresh with tortilla chips. Store refrigerated up to 3 days. *Yield: 4 cups*

Susan Harrison • Le Mars
North West Rural Electric Cooperative

KERNELS AND ROWS

The number of kernels per ear can vary from about 500 to 1,200. A typical ear of corn has 800 kernels in 16 rows. There is one silk for every kernel that grows in an ear of corn.

Sweet Corn Dip

- 4 cups corn cut fresh off the cob or frozen
- 1 14.5-ounce can diced tomatoes, drained
- ½ cup sour cream
- ½ cup mayonnaise
- tortilla chips

Cook, drain and cool corn. Mix corn with drained tomatoes, sour cream and mayonnaise then chill. Serve with tortilla chips. For a spicier dip, use a can of diced tomatoes with green chilies. *Serves 12*

**Donna Johnson • Kanawha
Prairie Energy Cooperative**

Fried Sweet Corn

- 8 ears sweet corn
- 2 tablespoons butter
- 3 tablespoons red pepper, diced
- ⅓ cup heavy cream
- 1 tablespoon fresh parsley, chopped
- salt

Husk corn and remove silks. With a sharp knife, cut the kernels from the cob. Add butter to a large sauté pan then add corn and pepper, stirring for several minutes. Add cream and cook for 3 minutes over high heat. Stir in parsley and season with salt.

**Barb Walter • Alton
North West Rural Electric Cooperative**

BBQ Chicken & Corn Pizza

- 1 tablespoon oil
- 1 onion, chopped
- 2 garlic cloves
- 1½ cups chicken, cooked and chopped
- ¼ teaspoon salt
- ¼ teaspoon pepper
- 1½ cups barbeque sauce, divided
- 1 15-inch pizza crust, unbaked
- 6 ounces cheddar cheese, shredded
- 1 cup fresh corn
- 4 ounces gouda cheese, shredded
- ¼ cup cilantro

Sauté onion in oil for 5 minutes. Add garlic and cook for 1 more minute. Mix in the chicken, salt, pepper and ½ cup barbeque sauce. Turn off the heat. Spread 1 cup barbeque sauce on the pizza crust, then top with cheddar cheese, chicken mixture, corn and gouda cheese. Bake at 375 degrees F for 30-35 minutes. Remove and top with cilantro. Cool 10 minutes before slicing. *Serves 6*

**Lauren Zollinger • Rock Rapids
Lyon Rural Electric Cooperative**

Easy Corn Fritters

- 3 cups sweet corn kernels, 4 ears of corn
- ½ cup all-purpose flour
- 2 tablespoons cilantro, chopped
- 1 teaspoon coarse kosher salt
- 1 teaspoon black pepper
- 2 large eggs, beaten
- vegetable or canola oil for frying

In a medium bowl, mix corn, flour, cilantro, salt and pepper until well combined. Add eggs and mix well. Heat a large skillet over medium-high heat. Add oil to cover the bottom of the pan and heat until hot. Use about ¼ cup of corn mixture for each fritter, drop about 6 fritters into the hot skillet and flatten out a bit. Cook fritters until golden brown, about 2 minutes. Using a spatula, flip and cook another 2 minutes or until golden brown. Repeat with the remaining mixture and serve immediately. Fritters can be kept warm in a 200 degrees F oven if not served immediately. *Yield: 12 large fritters*

**Tamara Kramer • Le Mars
North West Rural Electric Cooperative**

**SWEET VS.
FIELD CORN**
Only 1% of corn planted Iowa is sweet corn; the other 99% is field corn.

CORN KERNELS

STORING CORN

Refrigerate sweet corn in tightly wrapped plastic for 1-2 days if the husk is removed. If the husk is still on, store uncovered in a refrigerator for 1-2 days.

CORN KERNELS

BRIGHT GREEN MEANS RIPE

Sweet corn is ripe when husks are bright green and moist. After peeling the husk back, the kernels should be evenly spaced and plump.

CORN KERNELS

Wanted: Soup and Stew Recipes The Reward: \$25 for every one we publish!

Nothing comforts the heart and warms the soul quite like a hearty bowl of soup! With crisp and cool fall days in mind, we want your favorite soup or stew recipe. If we run your recipe in the magazine, we'll send a \$25 credit for your electric co-op to apply to your power bill. Recipes submitted also may be archived on our website at www.livingwithenergyiowa.com.

The deadline is July 31, 2021. 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@livingwithenergyiowa.com
(Attach your recipe as a Word document or PDF to your email message.)

MAIL:
Recipes

Living with Energy in Iowa magazine
8525 Douglas Ave., Suite 48
Urbandale, Iowa 50322



MORE THAN DELICIOUS

Sweet corn is undoubtedly an Iowa favorite, but it's more than just delicious. It's also a good source of vitamin C, lutein and fiber.

CORN KERNELS

Technology and cost drive a diverse energy portfolio

BY ANN THELEN

Electric cooperatives serving Iowans showcase new projects

Corn Belt Power Cooperative brought Wisdom Station's new 150-kilowatt solar facility online in 2020. The project features two different photovoltaic panel arrangements, a fixed-tilt array and an array of single-axis tracking panels. The 600 total panels now occupy space once used for the plant's coal pile. Wisdom Station converted to an all-natural gas burning facility in 2014.

Editor's Note: This is the first of a two-part series on how electric cooperatives serving Iowa member-consumers are integrating new energy sources into their energy portfolios. Part two will also feature cooperatives serving the northeastern and southeastern parts of the state.

Solar shines as a cost-effective resource

As Central Iowa Power Cooperative (CIPCO) works to close the gap left by the early closure of Duane Arnold Energy Center, it is focused on finding additional power purchase agreements with developers of wind and solar resources to fortify its power supply portfolio. CIPCO is a generation and transmission electric cooperative and, through its 13 members, serves over 300,000 Iowans in 58 Iowa counties.

"Energy from solar and wind resources are, relatively speaking, low-cost alternatives to other means of generation," says Bill Cherrier, CIPCO executive vice president and CEO. "We give great thought to the value these assets bring to the power supply portfolio, analyzing the costs and the

potential benefits and drawbacks of every decision.

"The solar option has been outstanding for us and really over the last eight years, it's become much more competitive. Compared to nuclear and coal plants, it is very economical and at times more competitive than those. The issue is you don't always have it when you need it," Cherrier continues. "Therefore, coal and natural gas play a very important part in our portfolio and will for some time to come."

CIPCO's involvement in solar projects has been in the spotlight in recent months.

Wapello Solar comes online

Earlier this year, Wapello Solar, LLC came online. CIPCO has a power purchase agreement (PPA) to purchase 100% of the power from the 100-MW_{AC} Wapello Solar for 25 years. Clënara LLC partnered with Renewable Energy Systems (RES) to construct Wapello Solar in six months, creating approximately 250 jobs at peak construction. Despite beginning construction during the

COVID-19 pandemic, Wapello Solar progressed with little to no delays and entered commercial operation in early 2021.

Clënara acquires, develops, builds and manages utility-scale solar projects and energy storage facilities throughout the U.S.

Located on nearly 800 acres, Wapello Solar features 318,000 bi-facial solar panels on single-axis tracker tables. When siting the projects, it's important to locate and construct at the lowest cost possible, while having necessary access to the transmission system. To check all these boxes, the projects are typically located on land that is rural, and in these instances, landowners are often pleased with the projects because developers work with landowners, and the opportunity creates diversity for their income.

On the heels of the completion of the Wapello Solar in southeast Iowa, CIPCO and Clënara Renewable Energy announced the execution of a PPA for Coggon Solar, LLC, a 100-MW_{AC} solar project in eastern Iowa.

NextEra Energy Resources and Alliant Energy petitioned the Iowa Utilities Board to close the Duane Arnold Energy Center (DAEC) in Palo in 2020, 14 years before the nuclear power plant's operating license was scheduled to expire. CIPCO is a 20% owner of the plant and received 20% of its generating capacity (in 2020) from DAEC. Corn Belt Power Cooperative is a 10% owner of DAEC. The August derecho accelerated the plant's closure by two months.

Coggon Solar will bring significant economic benefits to the local area. According to Clēnera, the project will contribute several million dollars in property tax revenue to Linn County over the life of the generating facility. Clēnera also estimates that the project will create approximately 350 jobs during peak construction, many of which will be from local labor.

Coggon Solar is anticipated to begin commercial operations in 2022.

"Our electric cooperative members count on reliability more than anything. It's imperative to their lives and livelihood. Our job is to deliver the best balance in a diverse energy portfolio," Cherrier adds.

Solar array occupies the former site of coal pile for power plant

In 2020, Corn Belt Power Cooperative brought Wisdom Station's new 150-kilowatt solar facility online. The project features

two different photovoltaic panel arrangements, a fixed-tilt array and an array of single-axis tracking panels. The panels take up space once occupied by the plant's coal pile. Wisdom Station converted to an all-natural gas burning facility in 2014.

Corn Belt Power supplies electricity to nine member cooperatives and one municipal cooperative that serve farms, rural residences, small towns, businesses and industries in 41 counties in northern Iowa. There are 600 total panels at Corn Belt Power's Wisdom Station with 75 kilowatts of generation on each of the fixed-tilt and single-axis tracking arrays.

A fixed-tilt array is an array in which the panels never move and are pointed in one direction at all times. The single-axis tracking panels will move with the sun to maximize energy generation.

"We hope to learn more about the true costs and benefits of the

two technologies – fixed-tilt versus single-axis tracking," says Jacob Olberding, vice president, power supply, Corn Belt Power. "We tried to set up as much of an 'apples to apples' comparison as we could. The two arrays are located right next to each other. Each array has the same size model, quantity of solar panels and inverters. We are monitoring and documenting the performance and costs associated with the two arrays so that our members can make informed decisions when considering the two technologies."

Iowa Choice Renewables, a company established and run by a group of electric cooperatives in rural Iowa, installed the system. The array interconnects to Iowa Lakes Electric Cooperative's distribution system at Wisdom Station. ⚡

Ann Thelen is the editor of *Living with Energy in Iowa*.



Solar panels at Wapello Solar LLC are bi-facial, meaning they have a back layer of transparent glass to give them the ability to utilize the sunlight reflected onto the rear side of the panel as well as onto the traditional front panels.

Photo Credit: RES



The official ribbon cutting for Wapello Solar, LLC, took place in April. From left: Jeremy Teresinski, RES; Tim Jordan, RES; Ken Johnston, FTC Solar; Bill Cherrier, CIPCO; Michael Gallego, Clēnera; Iowa Lt. Gov. Adam Gregg; Sen. Joni Ernst; Rep. Mariannette Miller-Meeks; and Tammi Sevy, Clēnera.

CVEC honored with Impact Award

Iowa's rural electric cooperatives' commitment goes far beyond ensuring safe, reliable, affordable and environmentally responsible energy for our members. Cooperatives, like CVEC, actively create and foster strategic partnerships and provide technical and financial assistance to support business growth and community vitality. Annually, the Iowa Area Development Group (IADG) recognizes electric utility members for outstanding commitment, support and participation in business development projects and community initiatives. During the recent Chariton Valley Electric Cooperative board meeting, CVEC was recognized for its economic development accomplishments and commitment to the communities it serves.

Chariton Valley Electric Cooperative was presented with an IADG Impact Award for business development. CVEC has supported economic development in our territory for many years. Recent examples of CVEC's involvement include several projects supported by



Pictured from left to right: Leilani Todd, CVEC CEO/general manager; Kenny Vandenberg, CVEC board president; Rand Fisher, IADG president; and Tod Faris, CVEC member service/economic development manager.

funds secured through the USDA Rural Economic Development Loan & Grant (REDL&G) program. These include \$1 million loans provided for each of the following projects.

- **Preferred Wholesale, Inc's** construction of a new 43,726-square-foot facility in the Albia Industrial Park, which will allow them to accommodate the growing demand of their product, Iowa Smokehouse Meat Snacks.
- **Seats Incorporated's** purchase of a 57,200-square-foot building in Chariton, which will enable them to upgrade and streamline their production process of seats used

in industrial and commercial vehicles.

- **Monroe County Hospital and Clinic's** completion of their \$20 million expansion project, which will enhance the clinic, specialized care and other outpatient services.

"We commend Chariton Valley Electric Cooperative for being an active supporter of business growth and community vitality," says IADG President Rand Fisher. "These projects are a small demonstration of the active involvement and impactful support they provide both existing and new businesses in their region and Iowa." ⚡

HOME MATTERS

Prepare your home for this summer's vacation

If you plan on spending time away from your home while on vacation, remember to prepare it for your absence. With the proper preparations you can cut electrical costs and keep your home and electronics safe while you are away.

We want our members to enjoy their vacations and keep their homes as safe and efficient as possible when they are away. CVEC has the following recommendations to prepare your home for this summer's vacation:

- **Change thermostat settings before you leave.** When temperatures are warm outside, it is unnecessary to keep your home as cool as you normally would since you will not be in it. You can either turn the thermostat up to a higher-than-normal temperature, such as 85 degrees, or turn it off entirely. When temperatures are cold, lower the



thermostat to as low as, but no lower than 55 degrees.

- **Unplug appliances and electronics.** You will not use your computer, television or toaster while you are away, but they will use your money if you do not unplug them. Even when appliances are turned off, many of them go into standby mode and continue to draw power. Unplug appliances and electronics to prevent phantom power draw and keep your electronics safe if there is a power

surge in your absence.

- **Adjust the water heater.** In the average home, the water heater accounts for 15 to 25% of the average energy bill, according to EnergySavers.gov. Water heaters use a lot of energy to store water at a warm temperature, which you will not need when you are on vacation. Turn the water heater to the lowest setting, or if you will be gone more than three days, turn it off.
- **Put lights on timers.** If you plan on leaving lights on to deter burglars, put those lights on timers. You can save money by not having lights on constantly and make it appear that people are home by varying the times the lights are on.

For more tips on keeping your home safe and efficient year-round, visit www.cvec.com. ⚡

Small-town values create business success in Albia

Hometown Fabricating, LLC is a production welding fabrication shop located in Albia. The business specializes in welding parts for customers in the automotive, agricultural and sewing industries worldwide.

Founded in 2003 by Tim and Angela Folkerts, the shop has built a reputation for quality work and quick turnarounds. It has grown from humble beginnings in a 24-by-28-foot garage to 8,600 square feet of production space for large-volume manufacturing runs today.

"We've been blessed with great customers that continue to grow and have the same values that we do," Tim says. "We prioritize faith, family and friends, and then work."

Partnering to grow a skilled workforce

Hometown Fabricating has 11 employees, including seven full-time welders.

"We've got a great group of welders," Tim says. "Some have been in the pipe-welding world or owned their own fabrication shops, and then some newer welders have come straight from Indian Hills Community College. The more experienced welders help teach the younger ones the trade."

Angela serves on the America's Small Business Development Center (SBDC) Iowa board representing Indian Hills Community College (IHCC). Over the past few years, she has been highly involved in growing and developing IHCC's industrial trade programs.

"Recently, the Folkerts have been working with Albia Community Schools to offer work-study trade program opportunities. As a result, high school students can work alongside the welders at Hometown Fabricating to experience the trade firsthand and see if it is a career path they want to pursue," says



Kevin Crall, superintendent, Albia Community Schools.

"It's not easy work; you have to have some talent and drive to be good at welding," Tim says.

These partnerships and local learning opportunities continue to grow a skilled workforce in southeast Iowa.

Community values create strong roots

Hometown Fabricating has customers worldwide and works closely with businesses on the East Coast, West Coast and Texas.

"Albia is the perfect location for our business. We're right in the middle of everyone," Tim says.

Beyond the centralized location, Hometown Fabricating has benefited from the local network of professionals who offer advice and help guide business decisions.

For example, at one point, the

business had offers to move its facility out of Albia. The Folkerts met with local leaders, including those at Chariton Valley Electric Cooperative, to discuss the area's economic development and the future of their business. Ultimately, they decided to keep Hometown Fabricating in Albia because of both the centralized location and supportive community that is willing to offer advice and business support.

"I feel fortunate that we've surrounded ourselves with great people who have good experience and are willing to share their advice to help us make important decisions," Tim says.

The Folkerts also appreciate the small, family feel of living and owning a business in Albia.

"I just love the community," Tim says. "Everyone is likable, and if you need something, there is always someone willing to help." ⚡

Stop by and see us at the Iowa State Fair!



The Touchstone Energy Cooperatives of Iowa are pleased to once again sponsor the Bruce Rastetter 4-H Exhibits Building at the Iowa State Fair. As Touchstone Energy members, we're part of a nationwide network of locally owned co-ops that provides resources and leverages partnerships to help member-consumers use energy wisely.

If you're planning a visit to the Iowa State Fair this summer, make sure to stop by and see us in the newly renovated 4-H Exhibits Building on the southwest corner of the fairgrounds. Come into the air-conditioned facility for a break from the heat and look for us near the new concession area.

Electric co-op staff from across Iowa will hand out plastic hard hats for the kids while supplies last. They can also try on some lineworker safety gear and take fun photos in our co-op safety selfie station!

Electric co-op members who take a quick survey on our iPads will automatically be entered into our fair contest. After the fair, three lucky winners will be randomly selected to choose one of three prize options:

- Roomba 614 Robot Vacuum
- DEWALT 20V MAX XR Blower
- Breville Smart Oven Pro

We will also announce the winners from our new Shine the Light contest during the fair. Iowa electric co-op member-consumers and employees had an opportunity to nominate local community volunteers for the contest in June. Three deserving volunteers will each receive a \$1,500 donation for their charity as we celebrate our cooperative commitment to community.

We look forward to connecting with our co-op members at the Iowa State Fair this summer. Please stop by our booth and say hello! ⚡



See you there!

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County fair rides leave a lasting memory

BY VALERIE VAN KOOTEN

Eleven months of the year, a certain tract of land in county seats sits quietly, barns empty, buildings vacant. But come July and August, it fills with 4-H kids, entertainment seekers and the greasy foods we all love, as the county fair kicks into high gear.

Any fair worth its salt has a midway. As a kid, this was the biggest draw. My friends and I loved the stomach-roiling, brain-churning mechanical monsters that threw us against each other and then up along the metal frame.

Whirly rides are a no go

But I've learned my lesson on the "whirly" rides. While I can stomach a roller coaster or a ride that goes straight forward, anything that turns in circles will make me sick the rest of the day. This lesson was imprinted on a muggy July evening at a county fair in central Iowa in the 1980s.

In this party was my mom, her friend Maxine, Maxine's two grandkids aged 9 and 6, and me. I was in my early 20s and found myself delegated to ride the Octopus from Hades with the two smaller kids. This was one of those entertainments that not only turns, but also has a car on the end of each spoke that whirls as well. I was game to ride along with the kids who were begging to go.

The first clue that this might not be so pleasant was the ride attendant, a teenaged boy with hair in his eyes, and a T-shirt with a vulgar saying on it. He grunted at us as we climbed into the Car of Death and latched us in. The second clue that this was going to be the Ride of Horrors was when said attendant started the ride by withdrawing a screwdriver from his back pocket and jamming it into the starting apparatus.

The ride lurched into motion, and I quickly realized that I had not figured the seating chart correctly.



The largest person should be on the outside so that the smaller ones don't get smashed in centrifugal motion. I was in the middle, so the little boy with me was getting the brunt of both his sister and me. I clung to the back of the seat, trying to pull myself away from him, which got more and more difficult the faster we went.

"Grandma" to the rescue

After two minutes of grim determination on our part to hang on, the 6-year-old wanted out. I tried to motion the adolescent attendant, only to find him flirting with a girl in line. It was obvious he was going to be of little aid. As we whirled past my mom and her friend, I tried to get their attention.

"Tell them to STOOOOPPPP..." I yelled, the Doppler Effect kicking in and carrying my voice away. She and Maxine were chatting away, totally ignoring us. In the meantime, the 6-year-old was crying, and the 9-year-old looked

pale. I was in real danger of getting hurled upon.

"MOOOOOOMMMMMMM!" I whirled a rotation. "TELL HIM TO STOOOPPPPPP..." Second rotation.

The 6-year-old finally broke through. "GRANDMA! I WANT TO GET OFFFFFF!" The two women finally saw us gesturing and screaming and alerted Flirting Attendant, who pulled the screwdriver out of the works and brought us to a grinding halt.

We staggered off the ride, wobbly, sick and angry. Teen Attendant grunted at us as we left. Mom and Maxine found the whole thing somewhat hilarious.

Just in case you're wondering, I've never ridden the Octopus from Hades again. 🦄

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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