

living with energy IN IOWA

OCTOBER 2020



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New solar project
delivers energy to
Iowa co-op members

CVEC donates to
Albia Trails Group

Recipes: Fall in love
with pork

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Our lines are shaped
by you, the members
we serve.

**October is National
Co-op Month.**

#PowerOn

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ON THE COVER



A new single-axis tracking panel is installed at Corn Belt Power Cooperative's new 150-kilowatt solar project at Wisdom Station, Spencer, Iowa. This 600-panel project replaces the space once occupied by the plant's coal pile. Photo taken by Marena Fritzler, marketing director, Corn Belt Power Cooperative. ⚡

Electric co-op advocates continue working hard for Iowa's communities

BY HALEY MOON

Iowa's locally owned electric cooperatives have a long and successful history of working with elected officials and policymakers to advocate for their member-consumers. Iowa Rural Power advocates – made up of co-op directors, employees and member-consumers – are known for wearing the iconic green shirts while attending events in their communities, in Des Moines and in Washington, D.C., to talk about issues impacting rural Iowans. Rural Power advocates work hard to educate elected officials on public policy that promotes rural economic development and supports safe, reliable, affordable and environmentally responsible energy.

Because of the COVID-19 pandemic, many of the opportunities Rural Power advocates typically attend to engage with candidates for office and elected officials were canceled. Events such as the annual REC Day on the Hill at the State Capitol in Des Moines, the NRECA Legislative Conference in Washington, the Iowa State Fair and countless campaign events were canceled, postponed or shifted to a virtual platform. And like all of us getting through this pandemic, Rural Power had to adjust.

Advocates adapt to pandemic changes

Even though the methods aren't the same as we're used to, Iowa's electric cooperatives have successfully kept communication lines open with elected officials. Through phone calls and video conferencing, and small socially distanced events at the co-op, advocates have continued to speak up for their communities. Because even though the pandemic has changed plenty, one thing that

hasn't changed is the importance of ensuring electric co-op member-consumers have a consistent voice and a credible message.



You can be a voice for rural Iowa

One of the most important ways to ensure co-op member-consumers have a voice is by voting. Member-consumers like you know best what is important in your community, and you can help send a message to elected officials that rural Iowa deserves their support. Iowa Rural Power, in conjunction with the national organization Co-ops Vote, is working to encourage voter registration and participation in the election on Nov. 3. *We don't care who you vote for, we just care that you vote!*

In Iowa, you can vote early in-person, on election day or by absentee ballot. Remember these dates as you get ready to vote:

- Oct. 5 – First day of absentee voting

- Oct. 24 at 5 p.m. – Pre-registration deadline; Deadline to request absentee ballot to be mailed
- Oct. 31 – Auditor's Office open for absentee voting
- Nov. 2 – Absentee ballot in-person deadline; Postmark deadline for absentee ballots
- Nov. 3 – Election Day

To learn more about voting in this year's election, visit www.voterready.iowa.gov or contact your county auditor.

If this year has taught us anything, it is the importance of community. Our core cooperative principle of concern for community has always driven the work of Iowa Rural Power. Now more than ever we are proud to advocate on behalf of our communities, the people served and the lives powered by electric cooperatives. Follow @iaruralpower on Facebook and Twitter or visit www.iaruralpower.org to learn more. ⚡

Haley Moon is the advocacy and political action manager for the Iowa Association of Electric Cooperatives.

EDITOR'S CHOICE CONTEST

Win a \$100 gift card to a local business!



Being a member of an electric cooperative is being part of something local. From the board of directors who guide the strategic direction of your co-op to the office headquarters, everything revolves around serving the local community. To celebrate National Co-op Month, we want to help you show your support for a local business! We're giving away a \$100 gift card to your choice of a hometown business. It will be good for a restaurant, hardware store, gift shop, grocery store, beauty salon or other family-oriented business that's vital to your community. ⚡

Visit our website and win!

Enter this month's contest by visiting www.livingwithenergyiniowa.com no later than Oct. 31, 2020. 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 dehydrator and cookbook from the August issue was Ashley Verheyen, Access Energy Cooperative.

Built by the community, for the community

BY LEILANI TODD

When you think of October – pumpkins, Halloween and beautiful fall foliage naturally come to mind. But October is notable for another reason – it is National Cooperative Month! This is the time of year when cooperatives across the country, including Chariton Valley Electric Cooperative (CVEC), celebrate who we are and, more importantly, the members we serve, who *own* us.

Cooperatives have a unique business model and are different than other types of businesses. Cooperatives are owned by those who are served by the organization and driven by seven business principles with a primary goal of delivering the members their needs in the most economical manner. CVEC was built by a few individuals who came together to bring electricity to our rural communities in 1947, when other organizations decided not to serve these areas. Your electric cooperative exists to provide safe, reliable and affordable energy to you, the cooperative members. Equally important, nearly 80 years later, is



our mission to enrich the lives of the members we serve.

As a cooperative, we are well-suited to meet the needs of the communities we serve because we are locally governed. CVEC's leadership team and employees live right here in the community. Our board of directors, who help set long-term priorities for the cooperative, live locally on cooperative lines. These board members have been elected to the position by neighbors like you.

We know our members have a valuable perspective. That is why we are continually seeking your input. Whether through community events, our social media channels or the annual meeting, we want to hear from you to ensure we continually meet our members' needs.

Our close connection to the community ensures we get a first-hand perspective on local priorities. This enables us to make more informed decisions on long-term investments, such as energy-efficiency programs, community solar initiatives, equipment and technology upgrades, and electric vehicle programs while keeping rates affordable.

Another feature that sets our cooperative apart from a traditional utility is the core principle, "Concern for Community." We

partner with local organizations like the Chamber of Commerce, Rotary and many more worthy programs and projects to invest in the communities, all while CVEC employees log numerous volunteer hours. We participate in the Electric Cooperative Youth Tour, where we take our community's brightest young people to Washington, D.C., for a week-long immersion to experience democracy in action and share the good news of why cooperatives are a vital business model. Ultimately, the broader community benefits from these programs because of you and your neighbors. You empower the cooperative through your membership and your participation in and support of these programs.

Our financial goal is to keep your rates affordable, invest in long-term infrastructure to provide reliable service and return margins at the end of the year in the form of capital credits to our members right here, not stockholders. You will not find these goals with other business organizations.

We continue learning from our members about their priorities to better serve you – because your electric cooperative was built *by* the community, *for* the community. It is the **Cooperative Difference** for you! ⚡

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



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Rain or shine,
day or night,
we're here for you.
**October is National
Co-op Month.**

#PowerOn



CVEC donates to Albia Trails Group

Chariton Valley Electric Cooperative and Co-Bank have partnered again to fund a great community project through the Sharing Success Grant program! CVEC is honored to help the Albia Trails Group with a donation of \$6,500 as they work toward completing the first leg of a new trail system!

CVEC's in-kind portion required crews to bore a new underground wire for the hitting and pitching facility at the Albia Sports Complex as the current location was obstructing the new trail path. CVEC crews also reset an overhead guy pole with an anchor. Co-Bank matched CVEC's in-kind labor donation with a cash donation of \$3,250.

CVEC's CEO/General Manager Leilani Todd and Assistant General Manager Becky Teno presented the check to the Trails Committee Group, including Laura Teno, Dan Tometich, Tyler Boley and Ryan Ammons. ⚡

CoBank is a national cooperative bank serving vital industries across rural America. The bank provides loans, leases, export financing and other financial services to agribusinesses and rural power, water and communications providers in all 50 states.



EMPLOYEE NEWS

Welcome, Jesse Knowles!



Chariton Valley Electric Cooperative is pleased to announce that Jesse Knowles has joined the team as our staking and

field technician.

Jesse is a native of Unionville, Missouri, where he currently still lives. He received his journeyman lineman certification from the Association of Missouri Electric Cooperatives in Jefferson City. Prior to joining CVEC, he was a lineman

for North Central Missouri Cooperative in Milan, Missouri, for more than 18 years.

When asked what he looks forward to most about joining CVEC's team, Jesse says, "I look forward to networking with people and am excited to be a part of the co-op way of doing business."

In Jesse's spare time, he enjoys farming, ranching, camping, hunting and spending time with family and his children Jaylee, Jonathon, Jesslyn and Jenna.

Please join us in welcoming Jesse to CVEC! ⚡

Celebrating co-ops and local communities

IT'S NATIONAL
CO-OP
MONTH!

BY PAUL WESSLUND

We like the word local.

We like it because it's the nearby hardware store where we can get what we need. It's where we meet friends for coffee. It's the shop where they look us in the eye and smile. It's a word of warmth that makes us feel known.

Local also means your electric co-op. It's as local as you and your neighbors because you own it. It's grown and changed with you, possibly starting before you were even born. Because it's made up of you and your neighbors, it's as unique to each part of the country as you are. And it changes to help out with what's going on in your community, whether that means bringing electricity to farmsteads

80 years ago, providing the community with access to high-speed internet or powering your community through the pandemic today.

October is National Co-op Month, and this year, it makes sense to use this time to recognize and celebrate the variety that is the essence of being local.

That local heritage for electric co-ops started in the 1930s with neighborly visits, often on horseback from one farm to the next, talking about the lights they could see in the city but didn't have themselves. They weren't likely to get those modern conveniences because no company saw a profit in stringing wires to power a few light bulbs in a remote farmhouse.

So, the local farmers took matters into their own hands. They pooled \$5 startup fees; organized member-owned, not-for-profit electric cooperatives; and convinced local politicians to create a federal loan program to help with the rest of the cost. They created what others didn't see: one of the most efficient agricultural economies in the world and communities based around a variety of business and industry, from manufacturing to tourism.

No such thing as a typical co-op

Today, 900 electric co-ops provide electricity to more than 20 million businesses, homes, schools and farms. They cover more than half the land in the U.S. They employ



From growing suburbs to remote farming communities, electric cooperatives are proud to serve 42 million Americans across 56% of the nation's landscape.





more than 68,000 people and invest \$12 billion a year in local economies, contributing \$88.4 billion to the nation's Gross Domestic Product.

They're big and small. The largest electric co-op serves nearly 350,000 members; the smallest, 113.

They're in metropolitan and non-metropolitan areas. While electric co-ops come from a rural heritage, many of their communities have grown over the decades. About 40% serve counties classified as rural and 60% classified as metropolitan. Another way to look at that variety is by the average number of members served by each mile of its power lines. The co-op with the densest population serves 78 members for each mile of line. The most remote co-op averages less than one person per mile of line.

While those numbers reflect the variety and uniqueness of who co-ops serve, what they do also matters.

Fewer emissions, more renewable energy

As co-op members became more aware of environmental priorities, co-ops focused on reducing power plant emissions. From 2009 to 2016, co-ops reduced greenhouse gas emissions by 8%, nitrogen oxide emissions by 24% and sulphur dioxide emissions by 66%. Co-ops also launched energy efficiency programs, many offering home and business 'energy checkups' to make sure members got the best value for their energy dollar.

Electric co-ops are helping power the growth in alternative energy. They pioneered the development of community solar, which allows co-op members to participate in renewable energy without the expense and effort of installing solar panels on their own property. Nationwide, co-op solar capacity has more than quadrupled in



the past five years. Seventeen percent of co-op electricity in the U.S. now comes from hydroelectric power, solar, wind and other renewable sources.

Over the next several years, we will see electric vehicle technology transform transportation. Some electric co-ops are making electric cars available to members to try out. Others are working to set up charging stations that will be required for a viable electric vehicle industry.

And now that we're all adapting to the effects of COVID-19, electric co-ops are again on the job as the virus changes everything from the national economy to how we say hello to our neighbors.

Electric co-ops are developing payment plans for people out of work. They're socially distancing line crews. They're setting up drive-in or virtual membership meetings and many are offering virtual energy audits.

The world keeps changing, and electric co-ops will continue to adapt. Each co-op's approach may differ, but they'll do whatever it takes to adapt in ways that make the most sense for the people in their community. *That's what it means to be a local electric co-op.* ⚡

Paul Wesslund writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

IOWA FACTS

The not-for-profit electric co-ops of Iowa provide reliable, safe, affordable and sustainable electricity to over

650,000 PEOPLE

throughout all **99** counties every day.

Iowa's electric co-ops maintain enough power lines to wrap around the equator **2.5 times!**

Iowa's electric co-ops provide power to about 15% of the state's population, yet cover approximately **80%** of the state's land mass.

Iowa's electric cooperatives have helped create or retain more than

50,000 JOBS

in rural Iowa.

Each year, Iowa's not-for-profit electric co-ops pay

\$14 MILLION

in property taxes.

The electric co-ops of Iowa directly employ more than

1,200 PEOPLE

Fall in Love WITH Pork



Kate's Breakfast Casserole

- 1 to 1½ pounds ground pork sausage**
- ½ teaspoon ground mustard**
- ½ teaspoon basil**
- ½ teaspoon oregano**
- ½ teaspoon thyme**
- 8 eggs**
- ½ cup milk**
- 2 cups shredded cheese of your choice, divided**
- 4 ounces mushrooms, sliced**
- 1½ pound package frozen tater tots (mini or regular)**
- ½ cup shredded Monterey Jack cheese**

Brown sausage and incorporate seasonings. Pour off grease. Beat eggs, and then beat in milk. Stir in sausage and 1 cup shredded cheese. Pour into greased or sprayed casserole pan. Sprinkle with 1 cup shredded cheese and cover in mushrooms. Top with tater tots. Cover loosely and bake at 350 degrees F for 40 minutes. Remove cover and sprinkle with Monterey Jack cheese. Return to oven to melt cheese. After removing from oven, let rest a few minutes before serving. Meat and seasonings may be prepared on one day and quickly put together the next morning for brunch.

**Mabel L. Fisher • Sigourney
T.I.P. Rural Electric Cooperative**

Cranberry Pork Festive

- ¾ pound pork tenderloin, trimmed**
- 1 tablespoon olive oil or vegetable oil**
- ½ cup beef broth, divided**
- 2 tablespoons dried cranberries**
- 1½ teaspoons Dijon mustard**
- 1 tablespoon orange juice concentrate**
- 1 teaspoon cornstarch**

Cut tenderloin into 12 slices; flatten to ¼-inch thickness. Add oil to skillet and brown pork over medium heat. Add ¼ cup beef broth, cover and simmer for 5 to 10 minutes or until meat is no longer pink. Remove meat to a serving dish and keep warm. Add cranberries, mustard and remaining broth to skillet. Combine orange juice concentrate and cornstarch until smooth. Gradually add to broth mixture to skillet, stirring constantly. Bring to boil, cook and stir 1 to 2 minutes. Pour over pork.

**Sharon Cline • Kent
Southwest Iowa Rural Electric Cooperative**

Garlic Apple Pork Roast

- 3-4 pound boneless pork loin roast, thawed**
- 6 ounces apple jelly**
- ½ cup water**
- 2 teaspoons garlic, minced**
- 1 tablespoon parsley**
- ½ teaspoon salt**
- ½ teaspoon pepper**

Cut roast in half and place in slow cooker. In a bowl, combine jelly, water and garlic; pour over roast. Sprinkle with parsley, salt and pepper. Cover and cook on low for 8 to 8½ hours. Remove from juice and let stand 5 minutes before slicing. Serve with cooking juices.

Judy Jackson • Hedrick • Access Energy Cooperative

Slow Cooker Ranch Pork Chops

- 4 boneless pork chops**
- 1 can cream of chicken soup**
- 1 package dry ranch dressing mix**

Layer pork chops in slow cooker. Add soup over pork chops and sprinkle with ranch dressing. Cook on high for 4 to 5 hours or on low for 6 to 7 hours. Thicker pork chops will take longer.

Patty Schurk • Burlington • Access Energy Cooperative

Source for pork facts: Iowa Pork Producers Association

SAFE COOKING TEMPERATURE

The USDA's Food Safety Inspection Service says pork can be safely cooked to medium rare at a final internal cooked temperature of 145 degrees F as measured by a food thermometer, followed by a three-minute rest time. Ground pork, like all ground meats, should still be cooked to 160 degrees F.

Ground Pork Casserole

- 1 pound ground pork
- ½ cup onion, chopped
- 1 can cream of chicken soup
- 1½ cups milk
- ½ cup uncooked rice
- ½ teaspoon poultry seasoning
- 1 cup soft breadcrumbs
- 2 tablespoons butter, melted

Brown pork and drain fat, then add onion. Stir in soup, milk, rice and seasoning. Put in casserole dish and bake uncovered at 350 degrees F for 60 minutes. Mix breadcrumbs and melted butter. Sprinkle crumb topping over casserole and bake until golden brown.

Linda J. McCarville • New Hampton
Butler County Rural Electric Cooperative

Sausage Pilaf

- 1 pound bulk sausage
- 1 cup celery, chopped
- ½ cup onion, chopped
- ½ cup green pepper, chopped
- 1¼ cups milk
- ¼ teaspoon salt
- ½ cup uncooked rice (not instant)
- 1 can cream of mushroom soup
- ½ teaspoon poultry seasoning
- ½ cup soft breadcrumbs
- 3 tablespoons margarine, softened

Brown sausage and drain excess fat. Add celery, onion and green pepper. Cook until tender but not brown. Stir in milk, salt, rice, soup and seasoning. Bake in 1½-quart covered casserole dish at 350 degrees F for 50 minutes, stirring occasionally. Mix breadcrumbs and margarine. Sprinkle breadcrumb mixture on top and continue baking uncovered for 20 minutes.

Lisa Harris • Akron
North West Rural Electric Cooperative

Hickory Chops

- 3 tablespoons molasses
- 2 tablespoons red wine vinegar
- 3 teaspoons liquid smoke
- 4 cloves garlic, minced
- ¾ cup brown sugar
- 1 teaspoon salt
- ½ teaspoon pepper
- ¼ cup Dijon mustard
- 6 boneless pork chops

In bowl, mix first 8 ingredients into a marinade. Put pork chops into freezer bag and pour marinade over. Seal and refrigerate overnight. Grill until pork chops are desired temperature.

Marci Domnick • Rock Rapids
Lyon Rural Electric Cooperative

Sweet and Sour Pork Chops

- 4-6 boneless pork chops
- 1 tablespoon oil
- 1 medium onion, chopped
- 2 tablespoons butter
- ½ cup vinegar
- ⅔ cup brown sugar
- ⅓ cup yellow mustard
- ⅔ cup ketchup
- rice

In a large skillet, place oil and cook pork chops until meat is no longer pink. In a separate pan, sauté onion and butter until onion is transparent. Add vinegar, sugar, mustard and ketchup. Simmer to blend flavors. Pour sauce over the pork chops, cover and continue cooking about 20 minutes. Serve with rice.

Lori Miller • Alvord
Lyon Rural Electric Cooperative

COOK IT LIGHT

Use low-fat cooking methods, like grilling, broiling, stir-frying and pan-broiling to maximize flavor while keeping added fat to a minimum. Marinate for flavor and juiciness, with juice, wine-flavored vinegar or fat-free dressing instead of oil-based marinades.

PORK FACTS

SIZE OF A DECK OF CARDS

A 3-ounce serving of trimmed, cooked meat is about the size of a deck of cards.

PORK FACTS

LEANEST CUTS

Use cuts with the words "loin" or "round" in their name for the leanest meats, such as pork tenderloin or loin chop.

PORK FACTS

SPICE FOR LIFE

Season meats with herbs and spices (other than salt) to boost flavor and cut back on fat and salt at the same time. Rub herbs and spices onto pork before grilling, broiling or roasting.

PORK FACTS

Wanted: Recipes for Valentine's Day! The Reward: \$25 for every one we publish!

From roses to hearts, red is the color of Valentine's Day! We're looking for foods our co-op cooks love that include something red as a primary ingredient. Whether the recipe contains a red fruit or vegetable, is a dessert or main dish, the contest is open to your creativity! 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.livingwithenergyiniowa.com.

The deadline is Oct. 31, 2020. Please include your name, address, telephone number, co-op name and the recipe category on all submissions.

NEW: Please also provide the number of servings per recipe.

EMAIL:

recipes@livingwithenergyiniowa.com
(Attach your recipe as a Word document or PDF to your email message.)

MAIL:

Recipes

Living with Energy in Iowa
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Wire-Rama anniversary marks co-ops' longstanding commitment to “Power On”

BY ANGELA CATTON



Right: George Hoffman, Sr. stands beside the main switch box. Pipes leading into the ground carry a plastic cable buried about 30 inches deep. This served as the heart of the entire electrical system.



Above: Dan Hoffman, George Sr.'s grandson, points to the same panel as it was recently rebuilt. The pipes still provide a conduit to the underground cabling that has been updated.



October is National Co-op Month, and electric cooperatives across the country are highlighting the many ways they “Power On.” For more than 80 years, rural electric cooperatives (RECs) have been defined by their mission to enrich the lives of members and serve the long-term interests of the communities they serve.

This month, when we honor a long history devoted to cooperatives and their relationships with those they serve, Northwest Iowa Power Cooperative (NIPCO) celebrates the 65th anniversary of an initiative to “Power On” a farm in Ida County. The event – the first of its kind in Iowa – was called Wire-Rama and held on Sept. 28, 1955, on the George Hoffman, Sr. farm north of Ida Grove. Today, the farm remains in the family and is owned by Dan

Hoffman, one of George’s grandsons. Dan, who currently serves as an Ida County director representative on the North West REC board of directors, was just three years old at the time of the event. His older brother George Hoffman III was 12 years old. The farm is served by North West REC.

“I remember the promotional marketing,” recalls Hoffman III. “There were brochures and posters that featured Willie Wiredhand. That was really neat!”

According to the November 1955 issue of *Iowa Rural Electric News*, “Wire-Rama translated into language everyone can understand, could be described as souping up an entire electrical system on a farm, including a complete rewiring job, and the addition of new electrical equipment, appliances and a fan, etc.”

Wire-Rama promotes “modern electricity”

Wire-Rama was the brainchild of NIPCO’s Public Relations/Power Use Advisor Kinney S. Reiser. In his role at NIPCO, Reiser was responsible for promoting the benefits of electric power. Construction on the NIPCO 69,000-volt transmission system had already begun three years earlier but member-consumers in the region were slow to understand the advantages that improved wiring and electrical systems could provide. With farms and homes already incorporating modest and primitive wiring and equipment, Reiser recognized an opportunity to educate and promote how “modern electricity” could further revolutionize mid-century life on the farm, relying on the expertise of their local electric cooperative.

The Hoffman Farm was identified as the ideal setting for the 1955 Wire-Rama. George Hoffman, Sr. was already a heavy user of electricity (about 10,000 kilowatt-hours each month). Hoffman raised and showed cattle and Berkshire hogs. He was interested in improving his operation





The Hoffman farm takes on a slightly different view than it did 65 years ago.

Present day photos by Rachel Rogers, communications specialist, NIPCO

by adding more electric equipment but his outdated existing wiring, installed in 1917, could not handle the increased electric load.

NIPCO's Reiser worked with power use advisors from each of NIPCO's member distribution cooperatives, which included 10 co-ops at the time. Power use advisors (or "P.U. men," as they were often called), were the predecessor to today's REC energy advisors and member service professionals. The group met regularly with Hoffman to plan a system that would meet his needs. Once the layout was finalized and materials list set, they worked with local vendors, manufacturers and "jobbers" (local electricians and tradesmen) to solicit donations of materials and labor. According to the *Iowa Rural Electric News* article, "A favorable reply from the jobbers, as well as offers from manufacturers contacted by them, saw the first phase of Wire-Rama well on the way to completion."

By donating materials and labor to the project, partners hoped to perpetuate the notion of modernizing antiquated electric

systems and electric appliances. Wire-Rama served as a working trade show exhibit for local electricians and vendors to market their services and products.

Underground wiring stands the test of time

It took approximately one week to rewire the Hoffman Farm. Work began on Sept. 20, with the digging of trenches that would accommodate the underground wiring. Hoffman III remembers that the underground wiring was "really something special" at the time and that many, including his grandfather, wondered how long it would last. Sixty-five years later, Dan Hoffman confirms that much of the underground wiring remains operational today.

A 400-amp capacity service was installed on the yard pole, followed by 100-amp services to several outbuildings, including the family home.

Thanks to these improvements, George Hoffman, Sr. was able to install a 42-inch fan with a two-horsepower motor to keep flies away from his cattle, something he could



Digging trenches for underground wiring was the first step in an eight-day electrical overhaul of the Hoffman Farm.

not do with his older system. George III distinctly remembers the giant fan. "It was about 5-foot square, and I remember it was red."

In addition, the Hoffman home was upgraded to include new wiring throughout, including a 100-amp circuit breaker panel, all new light fixtures, outlets and electric appliances. Mrs. Hoffman received a modern electric range but, according to her grandsons, insisted that her trusted propane stove be moved to the basement as her backup. ⚡

Angela Catton is the manager of member relations and development for Northwest Iowa Power Cooperative



George Hoffman, Sr. (left) and Ida County REC Manager Charles Pullen (right) inspect old wiring next to the fan that was installed to cool Hoffman's cattle barn.



Dan says this fan still works and is in regular use today!

Providing a balanced mix of power generation

For most things in life, balance is healthy. The same is true of the power generation mix that delivers electricity to your home, farm or business. Balance is a key part of the reliability Associated Electric Cooperative, the power generation and transmission cooperative for Southeast Iowa's electric cooperatives – including Chariton Valley Electric Cooperative – works toward every day.

Associated's balanced generation mix – featuring different fuels and ways to generate electricity – ensures lights come on when you flip that switch. Coal, natural gas, wind and hydropower generation mean flexibility to meet members' needs. This mix lets Associated focus on reliability, along with providing electricity that is affordable.

By using coal and natural gas units, members receive electricity reliably from generators designed to run around the clock. These plants can increase or decrease their power output to serve members when they need electricity.



Chouteau Power Plant — Natural gas



New Madrid Power Plant — Coal



Bluegrass Ridge Wind Farm — Wind

“Keep the turbine turning so we can keep the lights burning”

Associated's maintenance programs ensure these generators are efficient and available when they're most needed. If one unit stops operating, others make up the difference.

Joe Bader, an Ozark Border Electric Cooperative member, is one of many Associated employees tasked with keeping plants running. Joe is a journeyman machinist/mechanic at the New Madrid Power Plant. He works on equipment that supports power production, including turbines. His motto? “Keep the turbine turning so we can keep the lights burning.”

Joe says being a co-op member drives him to serve diligently. He knows families like his depend on his work for the electricity that powers their lives. “That inspires me to do the best I can,” Joe says. “No one likes to be without electricity for even a minute. My job is to ensure every piece functions so these power plants stay online.”

Why members benefit from a diverse supply

Wind and hydropower also are important parts of Associated's

generation mix. But there's a difference. They only produce electricity when wind and water are plentiful enough to make turbines spin. Generation from renewable sources, like solar, typically don't match members' peak use times — early in the morning on a winter day or late in the day during the summertime. This mismatch is why having a diverse power supply, with a foundation of around-the-clock resources like coal and gas, is important.

It's a balance

A balance of generation sources means the lights will keep burning for members throughout Associated's system. More than 700 employees like Joe work for Associated at its power plants and headquarters in Springfield, Missouri. Each is a critical part of the power supply picture, and each is devoted to ensuring you have affordable, reliable electricity when you need it.

In next month's issue: Affordable electricity is important to all members. We'll explore energy affordability and how Associated works to keep costs low. ⚡

A mix of generation means reliable power

2019 AECI GENERATION RESOURCES

50%



Coal

29%



Natural Gas

12%



Wind

9%



Hydro

Wisdom Station solar project nearing completion in northwest Iowa

BY RYAN CORNELIUS

Corn Belt Power Cooperative's first solar project is now mostly complete. After a few delays, the remaining panels in the 150-kilowatt array are generating energy at Wisdom Station.

The project features two different types of photovoltaic panel arrangements, a fixed-tilt array and an array of single-axis tracking panels.

"So far, the Wisdom Solar project is performing well," says Jacob Olberding, vice president, power supply, Corn Belt Power. "The fixed-tilt array has been in service for almost a year, and the single-axis tracking array began producing power earlier in July. It was a fun project to be a part of and was a good learning experience. The experience gained from this project will be valuable if Corn Belt is able to do another larger solar project in the future."

The panels take up the space once occupied by the plant's coal pile. Wisdom Station converted to an all-gas burning facility in 2014.

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.

"We hope to learn more about the true costs and benefits of the two technologies – fixed-tilt versus single-axis tracking," says Olberding. "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 will be monitoring and documenting the performance and costs associated with the two arrays throughout the life of the project so that our members can make informed decisions when considering the two technologies."



Workers with Iowa Choice Renewables install single-axis tracking panels in Corn Belt Power Cooperative's new 150-kilowatt solar project at Wisdom Station, Spencer, Iowa. The fixed-tilt array and single-axis tracking array each have a 75-kilowatt generation capacity. The 600-panel solar project replaces the space once occupied by the plant's coal pile.



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.

Iowa Choice Renewables, a company established and run by a group of electric cooperatives in rural Iowa, installed the system.

"Iowa Choice Renewables was easy to work with throughout the project," Olberding says. The array interconnects to the Iowa Lakes Electric Cooperative distribution system at Wisdom Station. Olberding says the Iowa Lakes staff was helpful

through the interconnection process.

"They were very accommodating and flexible," he adds. "They were great partners in this process."

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. Corn Belt Power plans to set up a webpage for co-op members to see how the two different arrays are performing. ⚡

Ryan Cornelius is the vice president of corporate relations for Corn Belt Power Cooperative.

Photos courtesy of Corn Belt Power Cooperative

Electrifying end-use appliances

Many of the everyday appliances in your home have the potential to be powered by electricity instead of gas, propane or any other type of fossil fuel. Switching over to electric appliances and technologies can help you save money over time in power and maintenance costs.

Four major electric technologies around the home are changing the way we use energy:



Electric induction stove tops

New induction stove tops can now warm up more quickly than gas stoves, can heat pans more evenly than before and are much more efficient than older versions of electric resistance stoves. Induction stove tops require specific pots and pans to be compatible with the stove top. The prices for electric stove tops have also declined in recent years, making most of them on par with the cost of gas stove tops.

Electric water heaters

A hybrid heat pump water heater is another option to electrify an appliance in your home and is much more efficient than a traditional electric water heater. Hybrid heat pump water heaters generally save money since they use energy more efficiently than gas-powered water heaters. Households can potentially save hundreds of dollars per year, while also not having to worry about



any combustion safety issues.

Another key feature of the electric water heater is that it can serve as a battery by storing thermal energy. Water heaters can retain their heat for hours, which means owners can power water heaters at night when electricity may be cheaper.



Electric lawn mower

Instead of using gasoline to power your lawn mower, consider a battery-powered mower, which doesn't expel exhaust fumes or require engine maintenance. Battery-powered mowers start instantly and are quieter to operate. Although most battery-powered mowers cost more upfront, the savings can be recouped over time by not needing to pay for engine maintenance or fuel.

Photo Credit: Ford Motor Company



Electric vehicles

Electric vehicle technology is changing quickly, with prices now becoming on par with gasoline-fueled vehicles over the long term. While there are luxury options like Tesla, there are many other manufacturers coming out with more affordable hybrids, especially for used cars. Electric vehicles also reduce exhaust emissions, which can improve air quality on a larger scale. ⚡

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Driving us over the edge

BY VALERIE VAN KOOTEN

Being quarantined with those nearest and dearest to us has brought out the best and the worst characteristics in everyone. The joys and sweetness were amplified; the most grating and obnoxious characteristics were magnified. It was those everyday annoyances that drove us to the edge. And what made it more vexing is that my family acted as if they had never heard these things ... as if I were giving them newspaper headlines in announcing them:

- **Hear Ye! Hear Ye!** You can use a bath towel more than once if you're clean! I know this is a revelation to many in my family, but if you get out of a shower and you've just scrubbed yourself, that towel is not going to be dirty. If you hang it up, you can re-use it! But once you fling it on the floor, it will turn into a moofy, mildewy-smelling lump.
- **This Just In!** It helps no one if you eat the last snack cake, the last cup of cereal, the last couple chips, and then put the box back! Just as bad: leaving 1/8-inch of orange juice so that you don't look like a pig who just drank the rest of the carton. Face it: You did drink the rest of the carton. Own it.
- **Breaking News!** Those items placed on the stairs aren't there for decoration or for you to trip over. They are meant to go up and be put away. Reverse the process for items at the top of the steps. Isn't that a novel idea?
- **I Know This is Hard to Believe!** Mom doesn't know where your boots/book/car keys/screwdriver/measuring tape is! And you know why she doesn't know? Because she hasn't worn/pocketed/used them!
- **Take Note!** There is no laundry category for "placing the item on



top of the clothes hamper!" It can be in the hamper (preferable state) or on the floor, but no one knows what to do with something on top of the hamper. Give it the sniff test and make a decision.

- **Be Warned!** When a responsible adult-type person is on the phone or a Zoom meeting, do not ask them stupid questions about where the aforementioned keys are. Unless there is blood or smoke, do not disturb said Person.
- **You Heard It Here First!** Moms really don't like to be "mooed" at. What do I mean? That long, mooing "Moooooooom" thing kids do (incessantly) when they want your attention wears on the nerves and frays the temper. I know, it sounds incredible, but moms and grandmas really don't like it.

- **It Confounds Science!** Studies say people can go weeks without food, but grandchildren seem to need snacks 10 minutes after a meal. And 20 minutes. And an hour.

- **Who Knew?** Once the toilet paper gets down to the cardboard roll, it needs to be replaced. Amazing, no?

In a world where we were scared of a pandemic, what annoyed many of us the most was not being required to wear a mask or having to sanitize everything we touched. It was the habits of those we were ready to take a letter opener to, even though we loved them more than anything. Except when they leave an empty egg carton in the fridge. ⚡

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 and two incredibly adorable grandsons.

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