



Guthrie County REC

A Touchstone Energy® Cooperative

JUNE 2023

iowa

ELECTRIC COOPERATIVE LIVING

Meet this year's
scholarship winners

Three surprising facts
about energy efficiency

Picnic and potluck recipes

Electrical substation to aid Perry economic development ▶ See Page 12

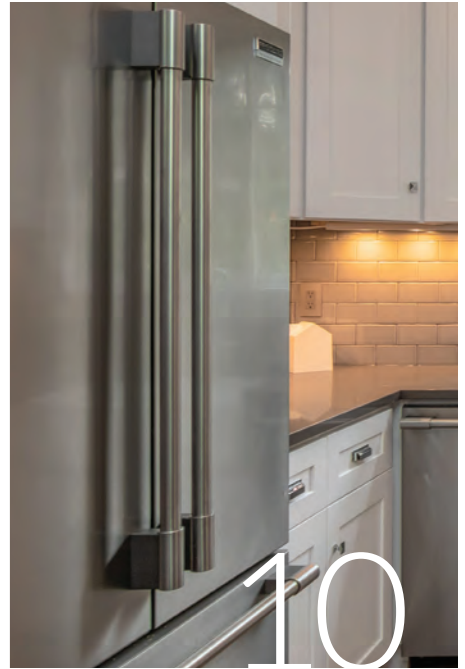
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Progress not
perfection

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ON THE COVER

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

ENTER A DESERVING LOCAL VOLUNTEER IN OUR 2023 CONTEST

BY ERIN CAMPBELL



Songwriter Jana Stanfield once said, "I cannot do all the good that the world needs. But the world needs all the good that I can do."

We all know at least one person who lives by this credo and makes our neighborhood or community a better place to live. I encourage you to take a few moments this month to enter them in our 2023 statewide Shine the Light contest! Three nominees will ultimately receive \$2,500 donations to their local charities.

How to nominate a volunteer

Member-consumers and employees of Iowa's electric cooperatives are eligible to nominate a local volunteer at www.IowaShineTheLight.com during the month of June. (If you receive electricity from an electric cooperative, you are a member-consumer!) In 500 words or less, tell us how your nominee is making a difference and how their local charity might use the donation. Our panel of judges will review all entries and select three winners this summer. We'll announce the winners after Labor Day and feature them in the September issue of *Iowa Electric Cooperative Living* magazine.

Celebrating community commitment

Why is your power utility participating in this effort? Your electric cooperative is locally owned and governed by you, the members it serves, and is mission driven to improve quality of life. Your co-op is also guided by seven cooperative principles, including concern for community. Our annual Shine the Light contest is a fun way to celebrate the people who give back.

Nominate a local volunteer and they could win \$2,500 for their charity!

Contest entries accepted at IowaShineTheLight.com during the month of June



Think of a neighbor, friend or family member who goes above and beyond to serve. These unsung heroes deserve recognition for their efforts, and this contest is a great way to show your appreciation.

Erin Campbell is the director of communications for the Iowa Association of Electric Cooperatives.

Time is running out, so make sure to nominate someone by June 30 at www.IowaShineTheLight.com.

The person you nominate could receive a \$2,500 donation to their local charity!

EDITOR'S CHOICE CONTEST

Win LED string lights!

Light up your backyard oasis with LED string lights. These warm white lights add flair and ambience to a porch, gazebo, fence, balcony and more. We're offering three sets of lights in this month's contest! The ETL-certified, high-efficiency bulbs save more than 90% energy versus other incandescent bulbs.

Visit our website and win!

Enter this month's contest by visiting www.ieclmagazine.com no later than June 30, 2023. 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 Smart Lock from the April issue was Dan Langel from North West REC.



ENTER ONLINE BY JUNE 30!

KNAPP RETIRES AFTER 32 YEARS WITH GUTHRIE COUNTY REC



After 32 years of dedicated service to Guthrie County Rural Electric Cooperative (REC), Line Superintendent Curt Knapp will retire at the end of June. Please join us in wishing him well in his retirement!

Growing up in Redfield, Knapp began his career at Guthrie County REC in April 1991 as a groundman. This was an entry-level position in which he assisted lineworkers with building, maintaining and repairing the co-op's electrical system. From there, he trained as an apprentice lineman, eventually earning enough on-the-job hours to become a journeyman lineman. As his career grew, Knapp worked his way into leadership positions overseeing the co-op linemen as the foreman, and then superintendent.

"In the years since I started, both the job and the equipment have increasingly emphasized safety in all aspects," he says. "We take being safe seriously for all our employees, but especially for our linemen who work in dangerous conditions every day. Our goal is to make sure they get home to their families. As I've taken on more responsibility, I've continued to encourage safety practices in all aspects of the work."

For a lineman, the job doesn't get any harder than restoring power during and after a major storm. Knapp had an early experience with an ice storm that struck the co-op's territory in fall 1991. Known as the "Halloween Ice Storm," the weather system is considered to be the costliest ice storm in Iowa history, taking more than a week to restore power in rural areas.

"I can remember watching all of the flashes along our lines as they burned down in the night under the weight of that ice," he recalls. "I'd never seen anything like that before."

In retirement, Knapp looks forward to spending more time with his family, including his wife Pam, two daughters, son and daughter-in-law, 14 grandchildren and his parents. He's also an avid fisherman and hunter and plans to enjoy those hobbies as well as travel.

"I'll miss the brotherhood of the line crew and the friends I've made here," Knapp says. "Seeing our office staff every day, and the daily tasks and responsibilities we have in order to provide power to our members are all memories I will cherish."

Congratulations on your retirement, Curt!

NELSEN ATTENDS LEGISLATIVE CONFERENCE IN D.C.



Guthrie County REC CEO Cozy Nelsen was among nearly 30 electric cooperative representatives from Iowa who traveled to Washington, D.C., in April for the annual legislative conference.

Sponsored by the National Rural Electric Cooperative Association, the event brings together more than 2,000 leaders from electric co-ops across the nation. Participants from Iowa use the opportunity to coordinate meetings with state and federal legislators through the Iowa Association of Electric Cooperatives.

"Our cooperative cares deeply about the member-owners and communities we serve, so it's important we do everything we can to be heard on issues that may affect our ability to provide reliable and affordable power," Nelsen says.

Iowa's electric co-op advocates talked to legislators about modernizing the permitting process, Farm Bill reauthorization, supply chain challenges, and continued threats to the reliability and affordability of power.



Guthrie County REC

A Touchstone Energy® Cooperative



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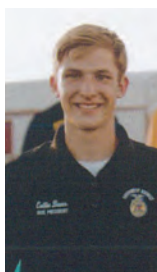
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2023 SCHOLARSHIP WINNERS

One of the tenets electric cooperatives live by is our commitment to the families, businesses and schools in the communities we serve. Every year, Guthrie County Rural Electric Cooperative (REC) is proud to support our youth by providing scholarship opportunities. This year, five students will each receive \$1,000 to help with school expenses to reach their educational goals.

Congratulations to these scholarship winners!



Collin Bauer – Audubon High School

Collin is the son of Jennifer and Michael Bauer of Audubon. He will pursue a major in agricultural education with a minor

in agricultural business at Iowa State University. Growing up on a beef and row-crop farming operation and being involved with FFA throughout school, Collin learned he wanted to be an advocate for the agriculture industry and teach students about agriculture in the classroom. Collin has been involved in FFA, basketball, student senate, choir and National Honor Society while also working on the family farm.



Jacob Estrada – Coon Rapids-Bayard Secondary School

Jacob is the son of LeeRoy Wagner of Bayard. He will attend Northwest Iowa Community College in Sheldon to complete

the power line program and become a lineman. He is looking forward to the opportunities available after completing the power line program and making an impact in the electric industry. Jacob has been involved in baseball, football and golf throughout high school, while also working as a farm hand and for a local electric company to expand his knowledge within the electric industry.



Brock Littler – Adair-Casey & Guthrie Center High School

Brock is the son of Amy and Bill Littler of Guthrie Center. He grew up loving math and found a passion for business and accounting during

high school. Brock will attend Iowa State University to double major in finance and accounting with hopes to graduate in three years. Throughout high school, Brock was active in football, basketball, baseball, track, National Honor Society, Leo Club and an active volunteer in the community.



Kamryn Nourse – West Central Valley High School

Kamryn is the daughter of Tina and Ryan Nourse of Dexter. She will pursue an education degree from William Penn University in

health/physical education or agricultural education while playing softball. Kamryn has been active in volleyball, track, soccer, softball, student council, FFA and 4-H, while also owning and operating her own business, Kamryn's Interior Detailing. She hopes to return to the Stuart and Guthrie County area after college to teach and coach and continue to have a positive impact on the community.



Jay Remsburg – Audubon High School

Jay is the son of Janell and Mark Remsburg of Audubon. He has been accepted into the power line program at Northwest Iowa

Community College in Sheldon and will start his two-year program to become a lineman in the fall. Throughout high school, Jay was involved in FFA, baseball and golf while also working at Remsburg Service after school and during summer breaks to earn money for college.

Congratulations
CLASS OF
2023

LIGHTNING SAFETY AWARENESS WEEK JUNE 18-24, 2023



Guthrie County REC

A "Lightning Safety" Cooperative

LIGHTNING MYTHS AND FACTS

☒ The rubber tires on your car protect you from lightning.

☒ It's not the tires, but the metal roof and sides that protect you.

☒ Metal attracts lightning.

☒ Metal can conduct lightning, but not necessarily attract it.



MOO-VING TOWARD SUSTAINABILITY

BY ANGELA CATTON

This cow is one of nearly 10,000 Van Ess dairy cows that play an essential role in sustainable agricultural practices and renewable energy production.

As the demand for sustainable agriculture practices and renewable energy continues to grow, many livestock producers are considering methane digesters to benefit their operations and communities.

The Van Ess family of northwest Iowa is incorporating methane digester technology to expand and diversify their operations. The Van Esses currently operate two Iowa dairies – a 6,000-head dairy in Sanborn and a 4,000-head dairy, known as Legacy Dairy, in Osceola County.

“We are committed to promoting sustainable practices, green energy technology and being good stewards of the environment,” says Jeremy Van Ess, who manages the dairies along with his parents, Harvey and Lisa, and his four brothers Josh, Chad, Tyler and Todd. “We do whatever we can to create local jobs and improve the overall environmental conditions for our neighbors.”

The Van Esses came to Iowa from Idaho in 2008 to establish Van Ess Dairy and, 10 years later, expanded operations to include Legacy Dairy. The dairies and a 3,300-acre farming operation are overseen by 65 employees, not including family members. Two Iowa electric cooperatives serving their facilities, North West REC and Osceola Electric Cooperative, were instrumental in bringing the Van Ess family to northwest Iowa thanks to economic development partnerships and reliable and affordable power.

What are methane digesters?

Methane digesters, also known as anaerobic digesters (ADs), are biogas technologies that convert organic waste, such as animal manure, into energy. By capturing and utilizing methane emissions, farmers can operate more sustainably, manage waste and generate additional income from the sale of fertilizers, biogas or electricity.

There are several types of methane digesters, including batch digesters, continuous digesters and covered lagoons. The Van Ess Dairy and its sister operation, Legacy Dairy, will operate continuous digesters on each site, with two 2.8 million gallon capacity reactor tanks in the Sanborn location and a single 3.3 million gallon tank at the Osceola location. The digesters are anticipated to come online in the coming months.

Feeding the digesters

Sand bedding is commonly used to provide a cool and comfortable place for livestock to rest. Soiled bedding must be scraped regularly from the barns and replaced with clean, dry bedding. The removed material is mixed with water and transported through a sand separator, which uses a mechanical process to separate the sand from the manure. The sand settles to the bottom of the separator, while the liquids are diverted away, typically to lagoons. The sand is

washed, dried and recycled as bedding free of harmful bacteria, contributing to overall animal health.

When incorporated with the methane digester system, the organic waste material is diverted through a channel system into the tank reactors, heated to approximately 100 degrees F, and stirred for about 30 days. During this time, the anaerobic bacteria break down the organic material, producing methane gas and a nutrient-rich liquid called digestate. The methane gas rises to the top of the digester, is pressurized and then blown through underground piping to various injection sites. That gas, known as renewable natural gas (RNG), can be used for energy production. The Van Ess Dairy and Legacy Dairy locations will supply enough RNG to heat approximately 2,700 homes.

The digestate is pumped to the lagoons and used as fertilizer. Because the anaerobic process removes much of the methane gasses from the organic material, what enters the lagoons has a lower odor content than

lagoons containing waste that has not undergone the AD process.

The Van Ess family applies their digestate to their crops, producing animal feedstock.

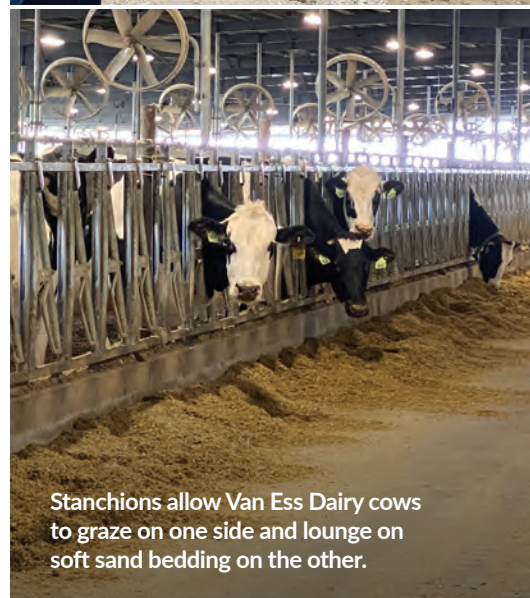
“We are a closed-loop process,” Jeremy explains. “Our livestock produce milk that we sell for dairy products like milk and cheese. Our cows also generate organic waste materials, which, in turn, help to power our operations and improve crop yields. And the cycle continues around and around.”

The Van Esses take great pride in their environmental commitment and sustainable operating practices. For the family, the benefits of technology to their operational goals far outweigh any challenges it presents. They look forward to the journey toward reaching net-zero status while contributing to reducing greenhouse gases through organically produced renewable energy that serves the needs of northwest Iowa for generations.

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



Harvey Van Ess points to one of two 2.8 million gallon reactor tanks being constructed at Van Ess Dairy.



Stanchions allow Van Ess Dairy cows to graze on one side and lounge on soft sand bedding on the other.

A HERD OF BENEFITS

Benefits to livestock producers

Some challenges are associated with implementing methane digesters, such as high initial costs. Still, the potential benefits make them an attractive option for many farmers. For the Van Ess family, the cost of the digesters is not subsidized by taxpayers but through a partnership with Brightmart RNG Holdings LLC in a joint venture with Chevron U.S.A. Inc. Working with energy development partners like Brightmart and Chevron eliminates the financial commitment by the Van Ess family, allowing them to focus on the overall benefits to their dairy and farming operation.

Environmental benefits

Methane digesters can reduce greenhouse gas emissions by capturing methane, a potent greenhouse gas produced during the decomposition of organic waste. By capturing methane and using it as a fuel, farmers can

reduce their environmental impact and contribute to a more sustainable future.

“As an industry, dairy producers are committed to reaching net-zero greenhouse gas emissions by 2050, or sooner. Incorporating methane digesters into livestock operations is a solid step toward reaching that goal,” Jeremy says.

Reduced waste management costs

Livestock farms generate large amounts of manure and bedding material. Disposing of this waste can be costly, especially if it has to be transported off-site. Bedding may be cleaned and recycled through the sand separation process while the organic matter is converted into methane for energy production and a natural, lower-odor soil enhancement.

Revenue diversification

Methane digesters allow their operators to diversify revenues by selling valuable



Harvey Van Ess and his family rely on their cooperatives for reliable and affordable power. Van Ess chats with North West REC member energy advisor Brent Van Beek.

byproducts. Farmers can generate additional income from selling biogas or electricity by capturing and utilizing methane emissions. The solids and liquids that produce the biogas create a nutrient-rich, organic fertilizer that is a popular, lower-odor alternative to synthetic fertilizers to improve soil health and crop yields.

Picnic & POTLUCK Favorites



CALICO BEANS

- ½ pound bacon
- ½ cup onions
- 1 pound ground beef, browned
- 1 15-ounce can lima beans, drained
- 1 15-ounce can pork and beans, drained
- 1 15-ounce can kidney beans, drained
- ½ cup ketchup
- 1 tablespoon dry mustard
- 1 teaspoon vinegar
- ⅔ cup brown sugar
- ⅓ cup sugar

Brown bacon and crumble. Brown onions in bacon drippings. Mix ground beef, bacon and onions in a 2½-quart casserole dish or a slow cooker. Add beans, ketchup, dry mustard, vinegar, brown sugar and sugar. Stir and bake at 350 degrees F for 1 hour or for 2 hours in a slow cooker. If desired, add ham or sausage to ground beef. Serves 12

Karla Cose • Glidden
Raccoon Valley Electric Cooperative

MACARONI SALAD

- 1 pound macaroni
- 1 red or green pepper, chopped
- 1 onion, chopped
- 4 carrots, shredded
- 2 stalks celery, diced
- 1 16-ounce package cheddar cheese, shredded
- 2 cups mayonnaise
- 1 cup sugar
- 1 can sweetened condensed milk
- 1 teaspoon salt
- ¼ teaspoon pepper
- ½ cup vinegar

Add garnishes (tomatoes, parsley), if desired

Cook macaroni and drain. Mix with green pepper, onion, carrots, celery and cheddar cheese. Use less cheese if desired. Make a dressing by mixing mayonnaise, sugar, sweetened condensed milk, salt, pepper and vinegar. Pour dressing over salad and chill. Stir before serving.

Cindy Snider • Seymour
Chariton Valley Electric Cooperative, Inc.

ITALIAN BEEF FOR A CROWD

- 25 pounds arm or chuck roast
- 5 packets Italian dressing mix
- ¼ cup oregano
- ¼ cup garlic powder
- 2 jars pepperoncini buns
- cheese

For one roaster, cut roast into 1-pound chunks. Add dressing mixes, oregano, garlic powder and pepperoncini. Cook at 225 degrees F for 14 hours. Shred and serve with buns, au jus and cheese. *Serves 75*

Anna Domnick • Rock Rapids • Lyon REC

FESTIVE SALAD

- 1 large bunch Romaine lettuce
- 1 red apple
- 1 pear
- 6 green onions
- ¾ cup cashews
- ¾ cup raisins
- ¾ cup feta cheese, optional
- ½ cup sugar
- ½ teaspoon lemon juice
- 1 teaspoon Dijon mustard
- ¼ cup vinegar
- ½ cup canola oil (or preferred oil)
- 2 tablespoons poppy seeds

Cut up lettuce. Cut apple, pear and onions into bite-size pieces. Mix lettuce, apple, pear, onions, cashews, raisins and feta cheese, if desired. Set salad aside. Make a dressing by mixing sugar, lemon juice, mustard, vinegar, oil and poppy seeds. Add dressing to salad mixture right before serving. *Serves 8-10*

Cindy Tripp • Panora • Guthrie County REC

SUNSHINE JELL-O SALAD

- 1 3-ounce package orange Jell-O
- 1 3-ounce package cherry Jell-O
- 1 3-ounce package lime Jell-O
- 4 cups boiling water, divided
- 3½ cups cold water, divided
- 1 3-ounce package lemon Jell-O
- 4 cups whipped topping

Prepare orange, cherry and lime Jell-O flavors separately by dissolving each package in 1 cup boiling water and then adding 1 cup cold water. Pour each flavor into a separate 8-inch square pan. Chill to firm. Once firm, cut into ½-inch cubes. Set aside a few cubes of each flavor for garnish. Dissolve lemon Jell-O in 1 cup boiling water and then add ½ cup cold water. Chill until slightly thickened. Blend in whipped topping. Mix in orange, cherry and lime Jell-O cubes, except those set aside for garnish. Put Jell-O mixture in a glass bowl. Garnish with reserved cubes on top. Chill until firm. *Serves 16*

Sonya Colvin • Ames • Consumers Energy

CHOCOLATE-FILLED CUPCAKES

- 2½ cups unsifted flour
- 2½ cups sugar, divided
- 1 teaspoon baking powder
- ½ cup cocoa
- ½ teaspoon plus a pinch of salt, divided
- 2 teaspoons baking soda
- 1 cup hot tap water
- 2 eggs, slightly stirred
- 1 cup coconut oil, melted
- 1 cup buttermilk
- 2 teaspoons vanilla, divided
- ½ cup whole milk
- 1 cup butter, softened, divided
- 1 tablespoon water
- 4¼ cups powdered sugar, divided
- 2 egg whites, stiffly beaten
- ½ teaspoon almond, orange or hazelnut extract

Sift together flour, 2 cups sugar, baking powder, cocoa and ¼ teaspoon salt in a large bowl. Dissolve baking soda in hot water. Then, in a separate bowl, mix dissolved baking soda together with eggs, coconut oil, buttermilk and 1 teaspoon vanilla. You may substitute the buttermilk with 1 cup whole milk mixed with 1 teaspoon white vinegar. Pour batter into paper-lined muffin tins, filling ²/₃ full. Bake at 350 degrees F for 20 minutes. Cool completely before filling cupcake centers.

For filling, mix ½ cup sugar, whole milk, ²/₃ cup butter, ¼ teaspoon salt, water and ½ teaspoon vanilla. Beat for 7 minutes or until very smooth. Add ¾ cup powdered sugar and beat 3-5 more minutes. Stuff the filling into a cake decorator tube and fill each cupcake in the center until you are just able to see the filling peek out. Take a frosting knife and scrape off any excess filling.

For frosting, cream together 1¼ cups powdered sugar and ¹/₃ cup butter. Add the beaten egg whites remaining, 1¼ cups powdered sugar, pinch of salt, ½ teaspoon vanilla and either almond, orange, hazelnut or any preferred flavor. Beat until smooth. Use a frosting decorator or knife to frost the cupcakes. Store in refrigerator. Keeps well for two to three days or longer in a freezer. *Makes 12-18 cupcakes*

Sue Leerhoff • Clarksville • Butler County REC

WANTED:

PORK RECIPES

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

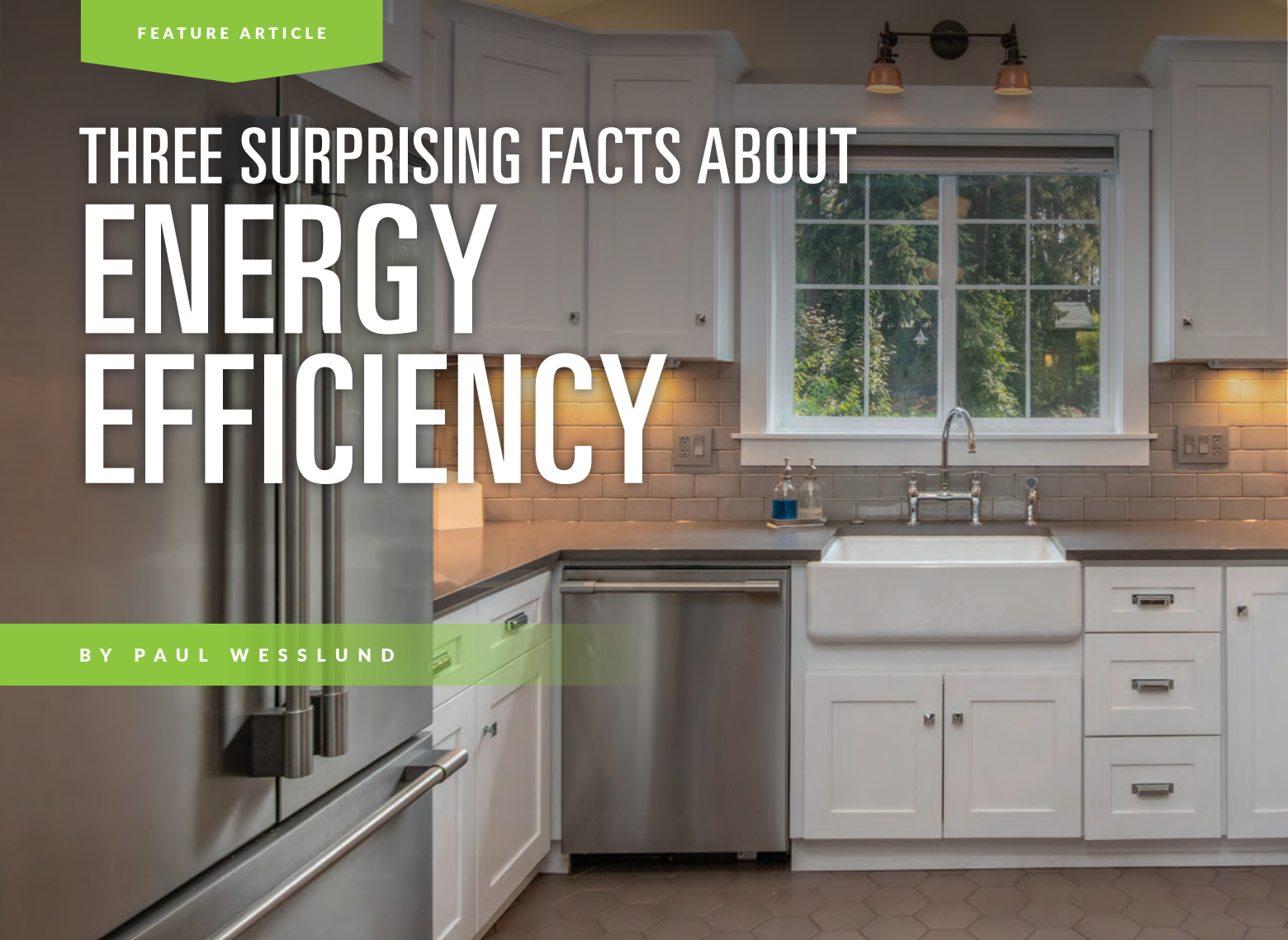
Deadline is June 30

Please include your name, address, telephone number, co-op name and the recipe category on all submissions. **Also provide the number of servings per recipe.**

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

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





THREE SURPRISING FACTS ABOUT ENERGY EFFICIENCY

BY PAUL WESSLUND

Americans are more energy efficient than you might think. And you may also be surprised to learn that we can do even better with some innovative thinking and by controlling hidden power users.

Electricity touches our lives nearly every minute of every day, making up about 5% of the nation's Gross Domestic Product (GDP). So, it makes sense to use it wisely, whether you're concerned about how it affects the environment or you want to save money – or both.

Here are three surprising facts about energy efficiency that can help you make the best use of your electricity.

1 PROOF OF EFFICIENCY

A little-known way of measuring efficiency performance is with a statistic called the “energy intensity index.” It shows how much energy it takes to produce a dollar of the economy’s GDP. Another term that’s been used for that idea is “energy productivity.”

Whichever term you use, the indexes show that Americans are getting better at creating more economic activity with less energy – energy intensity is down and productivity is up. Way up.

The numbers show that energy intensity is about half what it was 30 years ago. That’s because we’re making strides in a range of ways,

from building codes to light bulbs to motor vehicle mileage. And these improvements are expected to continue. The Department of Energy projects energy intensity will decline by 30% over the next 30 years.

2 OUT WITH THE OLD, IN WITH THE NEW

The old phrase “you have to spend money to make money” is catchy because, at first, it sounds like it doesn’t make sense. But when it comes to appliances that consume a lot of energy, it can make dollars and sense.

From dishwashers to computers, energy efficiency is improving dramatically every year as

technology, federal rules and plain old competition give you a better bang for your buck. In fact, if your refrigerator or dishwasher is more than 10 years old, the money you can save on energy use for a new appliance could pay for itself in just a few years.

The yellow Energy Guide labels found on products at your appliance store will tell you how much you can save with a new purchase. Another way to compare the old to the new is to search “flip your fridge” on Google or another online search engine. It will take you to an ENERGY STAR® calculator that will compare the energy use of your current appliances to what’s available in stores.

3 SLAYING VAMPIRES

Did you know you could be spending \$100 to \$400 a year on energy you don’t even need? That frightening fact even comes with

scary names—phantom power or vampire electronics. It’s the TV and video game console that draw power so they’re ready to turn on instantly. It’s the digital clocks. It’s the computers and phones plugged in even though they’re fully charged.

Getting rid of phantom power can be tricky. You probably don’t want to regularly shut off your wireless router or constantly reboot your smart TV. But you can plug several devices into a power strip and turn them off when they are not being used. Or smart power strips are available that will do that for you. When you’re shopping for new electronics and appliances, look for the latest ENERGY STAR®-rated models that take vampire loads into account. It is also worthwhile to take a notepad through each room of your home and list anything that’s plugged in. This helps you figure out which energy users you might be able to control without causing too much inconvenience.

Phantom power costs do add up, but it’s also true that your home has much bigger energy users. If you’re

concerned about energy costs, ensure your heating and cooling system is up to date and working efficiently, and your windows and doors aren’t leaking air.

Your electric co-op can advise you on the most effective steps for energy savings. After all, they’re your local leading authority on home energy use. And that’s no surprise.

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.



Phantom power is energy consumed by electronics and appliances when they’re in standby mode but not being used.
Photo Source: Louis Poitras



The latest energy intensity index shows that we’re getting better at creating more economic activity with less energy. Energy intensity is down, and productivity is up.
Photo Source: Peter Magera

NEW ELECTRICAL SUBSTATION TO MAKE WAY FOR MORE DEVELOPMENT OF PERRY INDUSTRIAL PARK

A new substation being built by Guthrie County Rural Electric Cooperative (REC) in partnership with Perry Economic Development will support future business expansion in the Perry Industrial Park.

The 5 MW electrical transformer substation will be known as the Bluejay substation and will provide the necessary infrastructure to support future business expansion of the area.

"Guthrie County REC is a critical partner, vital to Perry's expansion," says Matt McDevitt, president of Perry Industries. "Adding this substation in the Perry Industrial Park is further evidence that Perry is a vibrant, growing city."

Cozy Nelsen, CEO of Guthrie County REC, adds that the Bluejay substation allows Guthrie County REC to serve a larger electrical load and provide better voltage to businesses nearby. It also provides Guthrie County REC members with additional backup power sources.

"I have worked alongside the Perry Economic Development group for many years," she says. "Honestly, Guthrie County has several ongoing construction projects, so Perry Economic Development group taking the lead within their industrial park is invaluable."

Planning for the substation began in the spring of 2022 after the Perry Industrial Park was certified to handle electric load. The co-op will install a 5/6.25 MVA transformer to complete the project in July.

"The Perry Industrial Park was among the first group certified by the Iowa Economic Development Authority in 2017 and recertified in 2022," says Iowa Area Development Group President Bruce Nuzum.

"In addition to the recent spec buildings constructed in the park, this



Pictured from left to right: Bruce Hansen, Iowa Area Development Group; Eddie Dias, Perry Industries; Jim Mazour, Don Schwartz and Michael Moore, Guthrie County REC board members; Cozy Nelsen, CEO of Guthrie County REC; Steve Bireline, Ron Bristle and Julie Kiley, Guthrie County REC board members; Scott Finneseth, Perry Industries; Bruce Nuzum, Iowa Area Development Group; Matt McDevitt, Perry Industries; and Deb Lucht, Perry Industries.

substation is yet another proactive move to meet the needs of the growing companies in the park and

enhance the attractiveness for other businesses considering Perry for their location."

Happy
4TH OF JULY

The Guthrie County REC
office will be closed
Tuesday, July 4



Don't forget to enter our Summer Share Giveaway contest! Just update your contact information and you could win \$150 or \$200 off your electric bill!

Visit www.guthrie-rec.coop for details.



Guthrie County REC

A Touchstone Energy Cooperative



BUILDING ENERGY EFFICIENCY INTO YOUR HOME

BY LES O'DELL

Energy efficiency continues to be a major factor in home design. While better energy bills may be the driver for some homeowners, energy efficiency has many benefits, such as making homes more comfortable, providing a more even temperature or improving quality of life.

"There are a lot of beneficial unintended consequences that happen when you improve the efficiency of a home," explains Todd Abercrombie, owner of Midwest Building Performance.

"For instance, moisture management, prevention of mold, improvement of indoor air quality and more."

To accomplish energy conservation, contractors and consumers take a variety of approaches. This may include looking for higher efficiency kitchen or bathroom appliances, using LED lighting throughout homes and implementing water-saving features as well as tankless water heaters.

Some of it even comes down to the building materials used during construction or how a home is laid out.

"People want better windows, better insulation and better roofs," says Donna Youngquist of R&D Custom Homes. "Customers may even want zone systems on their HVAC units to control the temperature in different rooms. This is so that an underutilized room is not heated or cooled as much as rooms that are used more often."

Benefits of a home energy audit

To make any residence – new construction or an existing home – more energy-efficient, builders suggest a complete energy audit, which looks at various factors that unnecessarily cost consumers money.

"An audit looks at the big picture and analyzes things such as insulation in the attic and walls to pinpoint all of the various gaps and cracks that might need to be sealed," Abercrombie says. "It's helpful to



Photo provided by Andrew Brindley, H-E Homes

have diagnostic equipment such as a blower door and infrared cameras."

Additionally, an audit will look at heating and cooling systems as well as other systems, including lighting, appliances and electronics.

Value during new construction

Energy efficiency is critical to be kept in mind even during new construction.

"I've done blower door tests even before installation to make sure we're getting things right," Abercrombie explains.

"There are certain things you just cannot get to after the house is buttoned up with drywall, windows and doors."

Energy efficiency is all about paying attention to details. While sometimes it is about product selection, it is often how things are installed and

considering other factors which often get missed during the rush to construct a home.

One place that often gets overlooked when it comes to efficiency is insulation in the ceiling of the home. Abercrombie calls it "leaky ceiling syndrome" because when builders think of an efficient house, they often think about what they can do to make the walls more airtight, but they frequently ignore the ceiling plane.

"The area between the ceiling and the attic doesn't get sealed as well as it should," he explains. "This is the most important boundary in the home, and we have more leakage there than we do in the walls."

Les O'Dell is a special contributor to Iowa Electric Cooperative Living.

EMERGING TECHNOLOGIES FOR GENERATING POWER

BY JENNAH DENNEY



Offshore wind farms provide many of the same benefits as land-based wind farms, including renewable energy production for domestic use and creating new employment opportunities. Photo Source: Nina Ali



Photo Source: Trico

The ways electric cooperatives power communities have changed over time. These changes will continue as advantageous economic conditions and technological innovation keep moving the nation's electric grid toward increased use of renewable energy sources.

The electric grid's efficacy and durability depend on several sources of power generation, and electric co-ops have invested in cutting-edge technologies to meet and predict consumer-members' energy needs. Your electric cooperative continuously monitors new technologies, develops strategies for adapting to them, and shares best practices with fellow co-ops.

Several revolutionary technologies for creating electricity are reshaping the future of power generation. The following are a few that are currently on electric co-ops' radars.

Offshore wind

Offshore wind farms provide many of the same benefits as land-based wind farms. And because the ocean provides more than enough space to install several turbines, offshore wind is positioned miles out at sea, barely visible from the land and away from sea routes and ecologically sensitive areas.

Often wind speeds offshore are higher than on land. The wind is stronger, steadier and less turbulent than on land. Slight changes in wind speed result in substantial improvements in energy production. For example, a turbine operating in winds of 15 mph can produce twice as much energy as one operating in winds of 12 mph.

Battery energy storage

Of course, renewable energy solutions have their challenges. We need electricity around the clock, yet we don't have sunlight and wind 24 hours a day. This means we need greater investments in energy storage projects to leverage electricity created through renewable sources. Energy storage will

play an essential role in enabling the grid to be more flexible and resilient.

Energy storage is expected to expand significantly in 2023, following robust growth in 2022. According to the U.S. Energy Information Administration, developers and power plant owners plan to increase utility-scale battery storage capacity in the U.S. nearly fourfold in the next three years, reaching 30 gigawatts (GW) by the end of 2025.

Small nuclear

Nuclear energy has been a source of power generation for a long time, constituting approximately 15% of the fuel mix for 661 electric co-ops in the U.S. In total, 93 commercial nuclear reactors are operational in 28 states.

Many in the industry are keeping an eye on the development of a new wave of nuclear power plants that may be on the horizon, known as small modular reactors (SMRs).

SMRs can generate carbon-free, reliable baseload power on a footprint comparable to that of a conventional coal-fired power plant. SMRs currently being developed in the U.S. come in various sizes, technological options, capabilities and deployment situations. These advanced reactors, ranging in size from 10 to 300 megawatts (MW), can be used for power generation, to process heat, desalination and other industrial applications. SMRs also provide numerous other benefits, including lower capital expenditures, siting flexibility and the capacity for additional power expansions.

As our nation's energy sources continue to shift, electric co-ops remain committed to exploring the best sources and technologies for their local communities and the consumer-members they serve.

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

SAVOR THE JOY OF IMPERFECTION

BY DARCY DOUGHERTY MAULSBY

Do you ever wonder why some life lessons take so long to learn? For me, one of those lessons has been progress, not perfection.

When I was a kid, this was the time of year I should have been working hard to prepare my many 4-H fair projects for the Calhoun County Expo. Oh sure, I took care of my pigs daily, but some of my cooking entries and other fair projects always seemed to become last-minute, mad-dash scrambles.

As odd as it sounds, I wasn't procrastinating because I was lazy. It was because I was afraid my work wouldn't be good enough. If it wasn't perfect and if I didn't get a blue ribbon (or qualify for the Iowa State Fair), my efforts were wasted – or so I thought. My parents didn't raise me to be a perfectionist. For some reason, though, I put all that ridiculous pressure on myself.

A contest "date"

That's why the perfectionist in me was shocked when my friend David Tallman from Cherokee recently shared a humorous story with me. A number of years ago, his mother encouraged him to enter a *Taste of Home* magazine cooking contest sponsored by the *Cherokee Times* newspaper. The rules specified that each recipe had to include Dromedary dates. David wasn't interested, but his mom persisted.

On a lark, he decided to doctor up a cornbread mix. In addition to following the directions on the box, he mixed in a can of chopped green chilies, an 8-ounce bag of shredded taco cheese and a box of chopped dates. Then he poured the batter into cast iron pans shaped like ears of corn.

He found an attractive wicker basket and lined it with corn-themed fabric and clear plastic wrap. He arranged a dozen date/cornbread sticks in the basket, along with individual packets of jelly and honey, and dropped his contest entry off at the local newspaper office.



"My dad was an administrative dietician, and he always said if your food is unappealing to the eye, no one will want to eat it," David says. "I kept that in mind."

Would you believe David won first prize? His award included a case of chopped Dromedary dates and an imitation pewter, daily-bread-themed plate.

"Even months later, women would congratulate me on my winning recipe," he says. "Their husbands loved it whenever they made that date/cornbread."

Ironically, some contest organizers seemed a little miffed that a man had won. No one bothered to take David's photo for the newspaper – not until three days after the big event.

"I felt that since they didn't bother to take my picture the day of the contest, the prizes didn't mean much to me – plus, I'd made up the recipe as a prank anyway," David says. "I gave the plate to my niece and nephew to encourage them to become good cooks. It worked! My nephew became a certified chef, and my niece is a fantastic home cook."

A taste of success

An avid home cook myself, I knew I needed to try making date/cornbread sticks. My perfectionist tendency reared its ugly head, though. Oh no – the sticks weren't releasing cleanly from the pan. Did I bake them long enough? Why am I such an incompetent person?

But then I took a bite and savored the wisdom of "progress, not perfection." It's amazing how chopped dates, taco cheese and chilies elevate boxed cornbread mix into a gourmet creation – even if my cornbread didn't look contest-worthy. As David would say, "Who knew it would actually taste so good!"

Darcy Dougherty Maulsby lives near her family's Century Farm northwest of Lake City. Visit her at www.darcymaulsby.com.



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