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ELECTRIC COOPERATIVE LIVING



Things to know about
electric vehicles

Managing electric
supply chain issues

Irish-inspired recipes

Dividends: The difference between allocations and payments ► See Page 5

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ON THE COVER | Special thanks to Jim Hirschberg, a Calhoun County Electric Cooperative Association member-consumer, for supplying this month's cover image. Submit high-resolution photos for consideration to editor@ieclmagazine.com. You could receive \$100!

HOW ELECTRIC UTILITY REGULATIONS BENEFIT RURAL IOWANS

BY ETHAN HOHENADEL



During the 2023 Iowa Legislative Session, proposals have been introduced with the intent to deregulate electric service territories in

Iowa. Iowa's electric cooperatives are concerned about the negative economic impacts of deregulation for rural Iowans because we know firsthand how exclusive service territories provide stability. They also provide consistency and reliability through a utility's obligation to serve its assigned service territory. I'd like to provide some background on how rural Iowans benefit from these regulations.

Making electricity available to every Iowan

In 1976, the Iowa Legislature passed Senate File (SF) 1258, which created assigned electric service territories. The legislation's goal was "to encourage the development of coordinated statewide electric service at retail, to eliminate or avoid unnecessary duplication of electric utility facilities, and to promote economical, efficient and adequate electric service to the public."

Let's break this down. First, the Iowa Legislature desired a coordinated statewide retail electric service system ready to serve Iowans. SF 1258 accomplished this goal by ensuring that every square foot of Iowa had an electric utility obligated to provide electric service upon request. Electricity is available to every Iowan no matter where they choose to live, work, vacation or adventure.

Second, the Iowa Legislature wanted to eliminate or avoid unnecessary duplication of electric utility facilities. SF 1258 achieved this by assigning

a single electric utility to serve within the assigned service territory. This means that only one set of substations, power lines and transformers are installed to serve every home and business in a service territory. Imagine the cluttered landscape of several sets of substations, power lines and transformers in your community if multiple utilities provided electric service in your neighborhood.

Finally, the Iowa Legislature set out to promote economical, efficient and adequate electric service to the public. SF 1258 advanced economic electric service by reducing potential expenses related to duplication of electric facilities. Additionally, the legislation promoted efficiency by reducing the electric facilities installed and by establishing service territories based on existing facilities already installed.

Assigned service territories increase electric reliability

Although the Iowa Legislature didn't set out to increase reliability by creating assigned service territories, SF 1258 accomplished that as well.

According to a 2021 utility report, "At the Precipice: The Perils of Utility Restructuring," published in 2021 by the highly respected law firm Wilkinson Barker Knauer, LLP, "Deregulation may make power cheaper for some major electricity buyers like Big Tech, but it increases costs for the average consumer, all while sacrificing reliability. In fact, nine out of 10 states in the continental U.S. with the highest utility costs have fully restructured markets with retail choice. Deregulation proponents also claim that the approach is clean and green. In reality, these restructured models offer little incentive for the kind of large-scale investment in clean energy technology that we'll need to meet the demands of a changing climate."

For more than 45 years, Iowa's assigned service territory laws have reinforced reliable and affordable electric utility service. Efforts to weaken or eliminate these laws will only harm rural Iowans.

Ethan Hohenadel is the director of regulatory affairs for the Iowa Association of Electric Cooperatives.

EDITOR'S CHOICE CONTEST

Win a KitchenAid Cold Brew Coffee Maker!



ENTER ONLINE BY MARCH 31!

Treat yourself to a smooth and balanced cold brew at home. Simply fill with coffee and cold water, steep and enjoy. It features a beautiful, streamlined design with glass and stainless steel components to preserve taste, which also makes for easy use and cleaning.

Visit our website and win!

Enter this month's contest by visiting www.ieclmagazine.com no later March 31. You must be a member of one of Iowa's electric cooperatives to win. There's no obligation associated with entering, we don't share entrant information with anyone and multiple entries from the same account will be disqualified. The winner of the Fire HD 10 Plus Tablet from the January issue was Clifford Neumayer, Raccoon Valley Electric Cooperative.

ELECTRIC VEHICLE FAQs

BY KEVIN WHEELER



You've likely heard or read that most automakers are transitioning many or all of their new vehicles to electric-only models over the next 10 years. Regardless of

the type of car you drive today, the electrification of the transportation sector is underway.

We regularly receive inquiries about electric vehicles (EVs) from Access Energy Cooperative members, so I thought it would be helpful to respond to some of those frequently asked questions.

Q: Why is Access Energy Cooperative communicating about EVs?

A: Access Energy Cooperative is providing information so that our members can make informed decisions when considering an EV purchase.

Q: Why does Access Energy Cooperative have EVs?

A: For research and development purposes, Access Energy Cooperative purchased our first hybrid vehicle in 2005. In addition, we purchased an all-electric vehicle in 2019 and a second one in 2023. We installed a Level 2 electric vehicle charging station for public use in 2019. Our EVs and charging stations help us access key data and gain insights into how EVs operate and what infrastructure is needed to support them. This helps us raise awareness and promote member understanding of EV technologies.

Q: Why is Access Energy Cooperative involved in EV infrastructure issues?

A: All electric utilities are planning now to ensure they have the necessary electric infrastructure in place to meet future EV charging needs – without jeopardizing the ability to keep reliable power flowing to our homes and businesses. As your local energy



Photo: Ford Motor Company

provider, Access Energy Cooperative is prepared to inform and help our members and local businesses plan for the EV future.

Q: Can I charge my EV using an existing outlet or do I need a special outlet?

A: All EVs come with a 110-volt-compatible (Level 1) charging unit, which can be plugged into any standard household outlet. An 8-hour overnight charge can enable traveling around 36 to 40 miles a day, depending on the vehicle. If you typically drive longer distances or are in a hurry, a Level 2 charger takes about half the time and provides about 180 miles of range over an 8-hour charging period. A licensed electrician must install a Level 2 charger.

Q: Does the outside temperature affect the range of an EV?

A: Outside temperatures, particularly colder weather, can impact the range of an EV. Unlike a gas-powered vehicle, where the heat is mostly coming from the engine, an EV must produce cabin heat and manage an optimal battery temperature with energy that comes from the battery, which can reduce battery range.

Q: Will an EV meet my daily driving needs?

A: If you are like most Americans and drive an average of 30 miles a day, an EV can meet your daily needs.

Q: What kind of incentives are available for EVs?

A: Access Energy Cooperative currently offers a rebate on Level 2 EV charging stations. Please contact the office for more information. There are a variety of tax credits and other incentives available for EV purchases. Visit www.afdc.energy.gov/laws/electric-vehicles-for-tax-credit to learn about federal incentives available through the Clean Vehicle Credit program. Visit www.iowa.gov to learn about state incentives.

Q: Should I let my co-op know if I purchase an EV?

A: If you purchase an EV, please let us know so we can better serve you. As more Access Energy Cooperative members buy EVs, it's helpful to know where they're located in our area so we can ensure we have the necessary infrastructure in place to meet charging needs and provide reliable power to our local homes and businesses.

We understand making the switch to an EV is a big decision. Whether you're ready to make an EV purchase or wondering if an EV can meet your daily driving needs, we're here to help you. Give us a call at 866-242-4232 or visit www.accessenergycoop.com.

Kevin Wheeler is the general manager/CEO of Access Energy Cooperative.

WHAT IS THE DIFFERENCE BETWEEN DIVIDEND ALLOCATIONS AND DIVIDEND PAYMENTS?

BY TAMMY SNAVELY



Receiving a dividend payment is one of the primary benefits of being a member of Access Energy Cooperative. Organized as a cooperative,

we are owned and operated by our members and do not exist to earn profits. Instead, any revenues above the cost of doing business during a given year are considered "margins."

Each year, these margins are allocated to each member's dividend account based on their usage for that year. On your April bill, there will be a statement showing the amount of patronage dividends being allocated to your dividend account for 2022. The image to the right shows where you can find it on your bill.

The following month, the board reviews the cooperative's current financial condition. They determine if it is favorable to retire dividends from members' accounts and, if so, how much will be retired. Dividend checks are then prepared to be handed out at the Annual Meeting of Members on Aug. 1. Any check not picked up at the meeting will be mailed.

Options for your payment

Members have the option to choose to receive their dividend payments in the

form of a bill credit rather than a check. If you wish to set your dividend account up to receive a bill credit instead of a check, please contact our office at 866-242-4232 or send an email to finance@accessenergycoop.com.

Members who have closed their account with the cooperative have the option to receive the amount in their dividend account as a discounted lump-sum payment or choose to receive payments at the normal retirement cycle, which is currently 22 years. If you close your account and

Access Energy Cooperative
PO Box 440
Mt. Pleasant, Iowa 52641
(866) 242-4232 or (319) 385-1577
24 HOUR EMERGENCY or OUTAGE SERVICE:
View and pay your bill online at
www.accessenergycoop.com

707 1 AV 0.399 \$ 707
John Doe C-2
2222 Cooperative Way
MOUNT PLEASANT IA 52643

Account Number 123456-001
Billing Date 05/05/2023 Due Date 06/04/2023

Billing Summary

Amount Due Last Billing	78.50
Payments	28.50 CR
Balance Forward	0.00
Current Charges	74.40
Total Amount Due	74.40
After Due Date Pay	75.50

Access Energy Cooperative is dedicated to exceeding members' expectations for safe, reliable, efficient service while being a good neighbor in our communities.

YOUR TOTAL PATRONAGE DIVIDEND ALLOCATION FOR 2022 IS \$168.50. PLEASE SEE THE ENCLOSED INSERT FOR FURTHER DETAILS.

Dividend statement on your bill

Messages
Visit our website at www.accessenergycoop.com and sign in to your account for more information on dividends.

are interested in receiving a lump-sum payment, please contact our office at 866-242-4232 or send an email to finance@accessenergycoop.com.

If you have a change of address, please inform the cooperative where your dividends can be sent. For more information about dividends and allocations, visit our website at www.accessenergycoop.com, contact our finance department at 866-242-4232 or send an email to finance@accessenergycoop.com.

Tammy Snavely is the chief financial officer/assistant general manager of Access Energy Cooperative.

\$25 bill credit drawing will be held May 31.

Each member who is signed up to receive 2023 and future dividend payments as bill credits, instead of checks, will be entered into a drawing to receive a \$25 bill credit. If you are already signed up, you do not need to sign up again.

UPCOMING EVENTS

MARCH 14	Nominating Committee meeting
MARCH 15	Scholarship application deadlines
MARCH 15	REC Day on the Hill in Des Moines
MARCH 31	Photo contest deadline
APRIL 7	Office closed in observance of Good Friday
APRIL 9	Easter
APRIL 11	Member Advisory Committee meeting
APRIL 20	Board meeting

You can access your account information 24 hours a day, every day, on our website at accessenergycoop.com or through our SmartHub app for mobile devices. You can also call our office to report service interruptions and request account information at 866-242-4232.



Access Energy Cooperative is dedicated to exceeding members' expectations for safe, reliable and efficient service, while being a good citizen in our communities.

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WHAT IS AN ELECTRIC COOPERATIVE?

You receive this magazine because you receive electricity from an electric co-op, Access Energy Cooperative. We are different from other electric utility providers.

- Access Energy Cooperative is a member-owned business, which means you own your electric utility company. You are a member, not a customer.
- You have a say in how things are run at your cooperative. Access Energy Cooperative is run by a board of directors who are all members, just like you.
- As a member, you could even run for a seat on the board. You must live at a service location that receives power from the cooperative. Board members serve three-year terms. All members elect co-op board members at the Annual Meeting of Members each August.
- Members receive dividends if the board of directors determines the financial condition of the cooperative is favorable to do so.

Get involved in your cooperative

Vote in the director elections! Annual meeting packets will be mailed July 6. Come to the annual meeting on Aug. 1.

- Read your monthly magazine, *Iowa Electric Cooperative Living*.
- Visit our website at www.accessenergycoop.com.
- Follow our Facebook page @AccessEnergyCoop.

We exist to serve your needs by providing safe, reliable and efficient service.

SCHOLARSHIP APPLICATION DEADLINES



Scholarship Applications

Due March 15

Access Energy Cooperative is offering \$9,000 in scholarships available to high school seniors. Applicants must be a high school senior receiving post-secondary education. Parents or legal guardians must be members of the cooperative.

Lineworker Scholarship Applications

Due March 15

Up to two \$2,000 scholarships may be awarded per year to students enrolled, or planning to enroll, in a one- or two-year electric line worker program, such as the Northwest Iowa Community College Powerline program in Sheldon or the Utilities/Lineman Program

at State Technical College in Linn, Missouri.

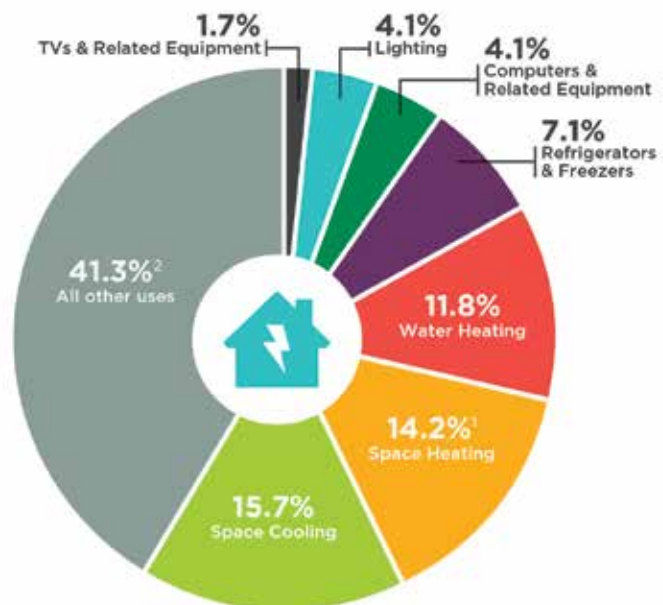
Obtain an application

- At all area high school guidance counselor offices;
- By visiting our website at www.accessenergycoop.com, downloading the application and either faxing, mailing or bringing it to our office; the form can also be submitted online; or
- By contacting the Access Energy Cooperative headquarters office in Mount Pleasant at 866-242-4232.

More details can be found on our website at www.accessenergycoop.com.

How Americans Use Electricity

The latest data from the U.S. Energy Information Administration shows the combined use of clothes washers and dryers, dishwashers, small appliances and other electrical equipment (noted as "all other uses" below) accounts for the largest percentage of electricity consumption in American homes.



Source: Energy Information Administration 2021

¹Includes consumption for heat and operating furnace fans and boiler pumps.
²Includes miscellaneous appliances, clothes washers and dryers, stoves, dishwashers, heating elements, and motors.

ONLY CERTIFIED WORKERS CAN TRIM TREES NEAR POWER LINES

Can anyone trim trees near power lines? The answer is no. Specialized tree trimmers, certified by the Occupational Safety and Health Administration (OSHA) in utility clearance, are the only persons legally allowed to trim within 10 feet of power lines.

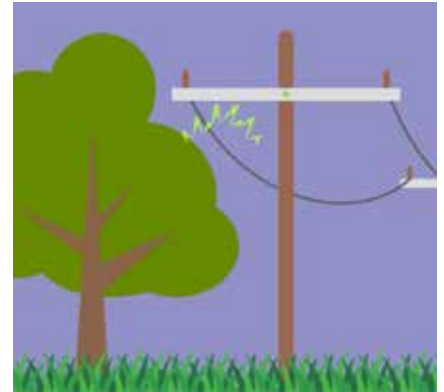
OSHA requires this certification because electricity is a serious and widespread hazard to tree workers or anyone working around them. According to the Tree Care Industry Association, electricity is the leading cause of death in the tree care profession, causing about 15% of all industry fatalities. You do not have to directly contact a power line to be electrocuted; about half of all electrocution fatalities of tree workers are the result of indirect contact.

Qualified line-clearance trimmers must be specially trained in how to safely work in proximity to energized lines. They must understand how an electrical grid functions, the effects of tree growth patterns and tree damage, and how to implement directional

pruning, as required by the American National Standard for Arboricultural Operations' safety standards.

A professionally certified tree trimmer typically must:

- Wear properly approved personal protective equipment, including fall protection equipment when needed.
- Work with a second line-clearance tree trimmer within voice range.
- Determine the voltages of lines before work begins or assuming that the line is operating at the highest possible voltage if it is not possible to determine voltage.
- Use only insulated tools and equipment to remove branches and limbs that are in contact with, or are within the minimum approach distance of, energized lines or equipment.
- Determine if weather conditions are no longer safe to work in, such as the presence of high winds, ice, thunder or lightning that would make the work hazardous.
- Begin work on storm restoration efforts in the aftermath of a storm ONLY if they have been trained in the special hazards involved with this type of work.



If you do not have the qualifications above, do not trim trees anywhere near power lines. Please contact your power provider if you have any questions about tree trimming.

SUMMER HELP WANTED

Temporary help is needed this summer in the Access Energy Cooperative operations department. Applicants must graduate high school before summer 2023 and must be enrolled in post-secondary education in the fall. Contact Diane Magnani at dmagnani@accessenergycoop.com.

PLAN BEFORE YOU BURN DITCHES

Burning ditches in the spring is a common way to clear weeds and grass. Access Energy Cooperative urges you to remember safety when you plan a controlled burn. Be sure to know where utility poles are located to avoid damaging electrical equipment.

Here are some things to think about to prevent burn-related damage to power poles:

- Plan before you begin
- Check the weather forecast for wind
- Burn when relative humidity level is 40% or higher
- Clear all vegetation and weeds at least 4 feet around the base of any utility poles
- Wet the base of any poles in the vicinity with water



IRISH

INSPIRED

RECIPES

SHAMROCK SOUP

- 3 celery ribs, chopped
- 4 medium carrots, sliced
- 2 cups potatoes, peeled and cubed
- 5 cups water
- 3 cups corned beef, cooked and cubed
- 2 cups cabbage, cooked and chopped
- 1 teaspoon dill weed
- 1 teaspoon salt
- 1 teaspoon seasoned salt
- ½ teaspoon white pepper

In a large soup kettle, bring celery, carrots, potatoes and water to a boil. Reduce heat, cover and simmer about 20 minutes, until vegetables are tender. Stir in the remaining ingredients. Cover and simmer for 15-20 minutes or until heated through. *Serves 10 (2½ quarts)*

Ahna Nester • Rock Rapids
Lyon Rural Electric Cooperative

SHAMROCK SHAKE

- 3 large scoops vanilla ice cream
- ¼ cup heavy cream
- ½ teaspoon peppermint extract
- 6 drops green food coloring
- whipped cream
- green sprinkles
- 1 maraschino cherry

In a blender, mix ice cream, heavy cream, peppermint extract and food coloring until completely smooth. Pour into a glass and top with whipped cream, sprinkles and a cherry. *Serves 1*

Marta Smigowska • Marshalltown • Consumers Energy

GRANDMA'S BLARNEY STONES

- 4 eggs
- 1¾ cups sugar
- 3 teaspoons vanilla, divided
- 1¾ cups flour
- 3 teaspoons baking powder
- ½ teaspoon salt, divided
- 1¾ cups milk, divided
- ¼ cup butter, melted
- 2 pounds powder sugar
- 6 cups peanuts, chopped

In a mixing bowl, beat eggs, sugar and 1 teaspoon vanilla until thick and lemon colored. Combine flour, baking powder and ½ teaspoon salt. Add to egg mixture. Beat on low until combined. Add 1 cup milk and butter, mix well. Pour into a greased 9x13-inch pan. Bake at 350 degrees F for 30-35 minutes or until a toothpick comes out clean from the center. Cool on a wire rack then cut into squares. Cover and freeze overnight. Make frosting by combining powder sugar, ¾ cup milk, 2 teaspoons vanilla and ½ teaspoon salt. Frost top and sides of frozen cake, then roll into chopped peanuts. Place on wire rack to dry. Store in airtight container.

Bridget Drey • Ida Grove
North West Rural Electric Cooperative

POTATO SCONES

- 1 pound potatoes, cooked
- 4 ounces self-rising flour
- 2 ounces butter
- ½ pinch salt

In a large bowl, mash potatoes with flour, butter and salt until a stiff dough forms. Turn dough out onto a lightly floured work surface. Knead dough lightly, then roll out to a ½-inch thick circle. Cut into six equal wedges. Heat a lightly greased griddle or cast-iron skillet over medium-high heat. Working in batches, cook scones on the hot griddle 4-5 minutes per side until golden brown. *Serves 6*

Bryce and Kelly Godbersen • Odebolt
Raccoon Valley Electric Cooperative

ROASTED ROSEMARY POTATOES

- 2 pounds Yukon gold or red potatoes
- 2-3 tablespoons olive oil
- 1 or more garlic cloves, minced
- ½ teaspoon salt
- ¼ teaspoon pepper
- 1 tablespoon fresh rosemary (or 1 teaspoon dried rosemary, crushed)

Arrange unpeeled potatoes in a pan. Pour olive oil and other ingredients over potatoes and toss to coat. Bake at 450 degrees F for about 25 minutes or until gold brown.

Mary Thatcher • Breda
Raccoon Valley Electric Cooperative

BAKED IRISH POTATO SOUP

- 4 large potatoes
- ¾ cup butter
- ¾ cup flour
- 6 cups milk
- ¾ teaspoon salt
- ½ teaspoon pepper
- 4 green onions, chopped
- 1 pound bacon, cooked and crumbled
- 2 cups cheddar cheese, shredded
- 1 cup sour cream
- Velveeta cheese slices

Peel and cook potatoes then cut into pulp and set aside. Melt butter in a large pot, add flour and cook together. Slowly whisk in milk to avoid lumps. Cook and stir until smooth, thick and bubbly. Stir in potato pulp, salt, pepper, onions, bacon and cheddar cheese. Cook until heated through. Stir in sour cream and Velveeta. *Serves 6*

Marilyn O'Brien • Geneva
Franklin Rural Electric Cooperative

IRISH CHOCOLATE MINT DESSERT

- 3 sticks plus 6 tablespoons butter or margarine, divided
- 2 cups granulated sugar
- 2 teaspoons vanilla
- 4 eggs
- ¾ cup Hershey's powdered cocoa
- 1 cup flour
- ½ teaspoon baking powder
- 2½ cups powdered sugar
- 1 tablespoon plus 1 teaspoon water, divided
- 1 teaspoon mint extract
- 4 drops green food coloring
- 1 cup Hershey's dark or semi-sweet chocolate chips

Microwave two sticks butter at 50% power until melted. Stir in granulated sugar and vanilla. Add eggs and beat well. Add cocoa, flour and baking powder. Beat well, then pour in a greased 9x13-inch pan. Bake brownies at 350 degrees F for 30-35 minutes or until toothpick inserted in center comes out clean. Cool completely on wire rack. Soften one stick butter and combine with powdered sugar, water, mint extract and food coloring. Beat until smooth, then spread mint cream center over cooled brownie. Cover and refrigerate until cold. Microwave 6 tablespoons butter and chocolate chips at 50% power until melted. Mix and cool slightly. Spread chocolate glaze over mint cream center. Refrigerate covered at least 1 hour before serving. Refrigerate or freeze any leftovers. *Yields 24 servings*

Gail Lacey • Sioux City
North West Rural Electric Cooperative

WANTED:

VEGETABLE DISHES

THE REWARD:

\$25 FOR EVERY ONE WE PUBLISH!

Deadline is March 31

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

EMAIL: recipes@ieclmagazine.com

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

MAIL: Recipes

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UNTANGLING THE KINKS IN THE ELECTRICITY SUPPLY CHAIN

BY PAUL WESSLUND



Currently, transformers are a hot commodity for electric utilities. Steel shortages coupled with a lack of enough workforce means that transformer manufacturers are unable to keep pace with a significant increase in demand. During the pandemic, lead times for ordering transformers jumped from one or two months to as long as two years.

Most of us learned firsthand about supply chain issues three years ago when the COVID-19 pandemic left us looking at empty store shelves.

Shortages also affected electric utilities. But their attention to supply chains started years before the pandemic and is continuing into the future. For electric utilities, the pandemic just amped up the job of keeping the lights on in an industry already adjusting to the rapid rise

in renewable energy sources and power systems battered by more severe weather.

Electric co-ops are among those taking steps to manage both immediate and long-term supply chain constraints, says Stephanie Crawford, regulatory affairs director with the National Rural Electric Cooperative Association (NRECA).

“This didn’t happen overnight,” says Crawford. “Many of these dynamics started before the pandemic.”

Creating a supply-chain task force

Those dynamics include the fact that there’s only one U.S.-based manufacturer of the kind of steel used to make transformers, which are vital pieces of equipment that help regulate power levels so electricity is safe to use. That constraint, coupled with a lack of enough workforce, meant that transformer manufacturers have not been able to keep pace with

a significant increase in demand coming out of the pandemic. Lead times for ordering transformers jumped from one or two months to as long as two years.

Those kinds of delays threatened to slow progress on essential work, like restoring power after a storm or connecting service for new co-op members.

And it wasn't just transformers in short supply, says Crawford. She explains that electric co-ops also faced delays for meters, conductors, utility poles, bucket trucks – essentially all the things needed to keep the system running efficiently, including restoration needs and serving new load.

To reduce those backlogs, last summer the utility industry, including electric co-ops, created a task force to work with the federal government on resolving supply chain slowdowns.

Incentives for U.S. manufacturing

The task force recommended several actions the federal government could take to help get utilities what they need. Among its suggestions was to provide incentives to encourage domestic manufacturing of steel for transformers.

The task force also identified national trends and policies that could conflict with the utility supply chain, including:



Worker shortages. The same lack of people to fill jobs in many parts of the economy, from restaurants to hospitals, also affects the making of materials needed by utilities.



Competition for workers. Any community wants its economic development efforts to attract major

new employers. But a large new business could end up attracting workers away from companies that supply essential utility equipment. The industry task force recommended that the government support incentives for utility-related work.



Renewable energy and infrastructure initiatives.

Electric vehicles, solar energy and even efforts to expand broadband service can use some of the same materials needed by utilities. The task force recommended the government avoid disadvantaging utility work by favoring other projects.

All these supply chain issues are causing utilities to rethink traditional business practices, says Crawford. The logistics and procurement functions of

electric utilities are getting increased attention.

“New strategies are going to be needed to meet the cooperative’s needs,” she says. “They’ve not needed to project the demand for transformers five years in the future because you could get a transformer in 60 days. Now, when it’s taking more than a year for the equipment to be available, they’re going to have to look at it through a different lens.”

Utilities have been adapting to dramatic changes, from weather patterns to sustainable energy. Supply chain management is one of the latest twists.

“Electric co-ops are really good at keeping the lights on,” says Crawford. “But these supply chain issues have made that job more difficult. Real investment needs to be made in domestic manufacturing and supply capabilities to make sure that all utilities can get the equipment they need. This is critical infrastructure, especially as we rely on the electric grid to power everything from transportation to working at home.”

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.



In addition to transformer shortages, electric utilities are experiencing longer-than-normal wait times for other essential equipment like utility poles and bucket trucks.

APPS TO HELP YOU SAVE ENERGY

BY ABBY BERRY

There are a variety of reasons why people are interested in cutting back on energy consumption. You may be primarily motivated to save on monthly energy bills or more concerned about reducing your personal carbon footprint.

Actively practicing energy efficiency and conservation provides multiple benefits. For parents, being more conscious about energy use can be a tool to teach kiddos about sustainable habits for the future. Conserving energy also means fewer carbon emissions, which results in better air quality and a healthier environment. Plus, saving money on our monthly utility bills is a great reason to monitor home energy use.

No matter why you're interested in using less energy, there are several smartphone apps to help you achieve meaningful energy savings.

Smart thermostat apps

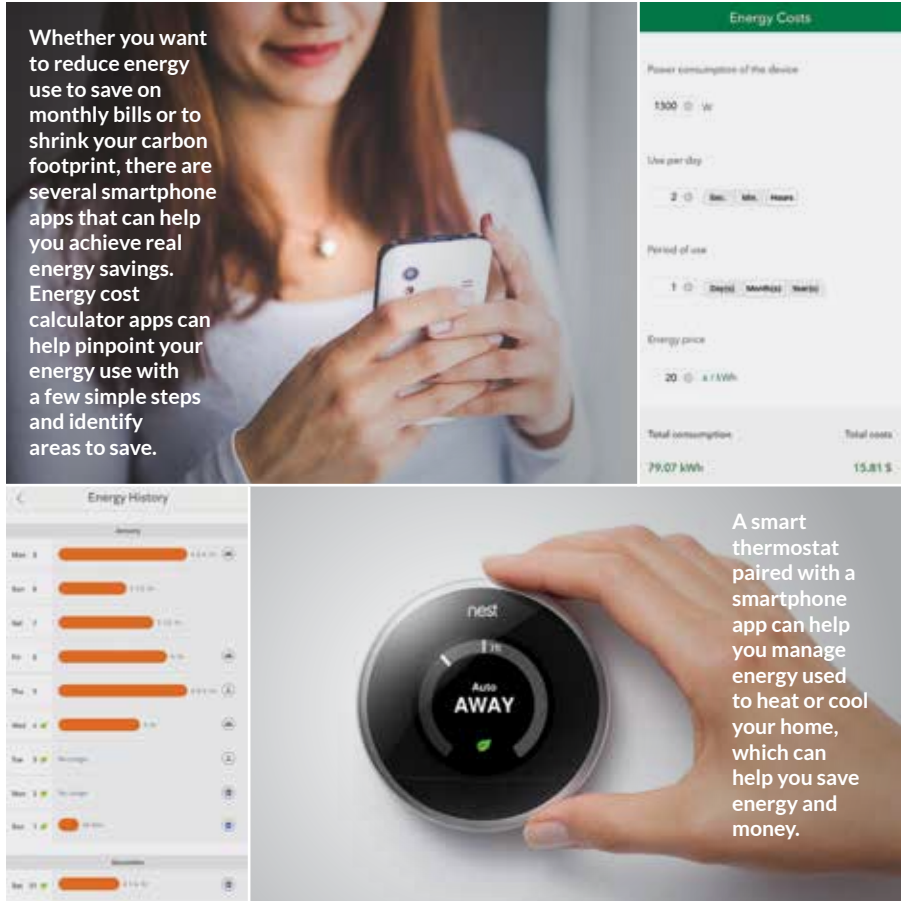
Smart thermostats and their accompanying apps are handy and promote energy-efficient behavior. These devices have become much more affordable over the years. You can purchase an ENERGY STAR®-certified smart thermostat for as low as \$100, which can save you approximately 8% on annual heating and cooling costs, about \$50 per year. The device will quickly pay for itself, and you'll gain insight into better ways to heat and cool your home.

Plus, the ability to control the thermostat from anywhere can equate to real savings. We recommend trusted brands and devices, like Google's Nest Learning Thermostat and Ecobee's Smart Thermostat.

Energy cost calculators

If you want to reduce energy use at home, it's essential to know where your consumption is going. Energy cost calculators can help pinpoint your energy use with a few simple steps and identify areas to save. The concept

Whether you want to reduce energy use to save on monthly bills or to shrink your carbon footprint, there are several smartphone apps that can help you achieve real energy savings. Energy cost calculator apps can help pinpoint your energy use with a few simple steps and identify areas to save.



A smart thermostat paired with a smartphone app can help you manage energy used to heat or cool your home, which can help you save energy and money.

is simple; plug in the wattage of your various appliances and how often you use them to see which are using the most energy.

Most energy cost calculator apps are free and can be downloaded to any Apple or Android device. If you browse the app store, you'll find multiple energy cost calculator apps, but most are similar in functionality. Be sure to read the app's reviews and download the one that best aligns with your energy efficiency goals.

JouleBug app

If you're competitive and enjoy gamifying, the JouleBug app is right up your alley. JouleBug makes energy conservation simple and fun through personal tasks and badges earned within the app, group challenges you can tackle with friends, and communities you can join to learn

about local sustainability efforts. The JouleBug app is free and can be downloaded to Apple or Android devices, and it's an easy tool to make saving energy fun.

These are just a few apps that can help you find new ways to save energy. Smart light bulbs are typically paired with apps for convenient control of home lighting; smart plugs also come with apps to help you control how you power everyday devices and electronics.

Whether you use an app or not, saving energy is always a smart idea that can help you save money on your monthly bills and reduce your carbon footprint.

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

SAVE ENERGY AND MONEY WITH A HEAT PUMP WATER HEATER

BY MIRANDA BOUTELLE

If you're looking for options to replace an old water heater, consider upgrading to an energy-efficient heat pump water heater. Heat pump water heaters – also called hybrid water heaters – use heat pump technology to heat water more efficiently than a standard electric storage water heater.

Think of them as a standard water heater with a heat pump on top. The heat pump heats the water two to three times more efficiently than the electric elements, but if needed, the unit still has the electric elements as backup.

Efficiency and operation

By moving heat instead of creating it, a heat pump water heater uses 60% less energy than electric storage water heaters. That can add up to savings of hundreds of dollars a year and thousands during the life of the water heater.

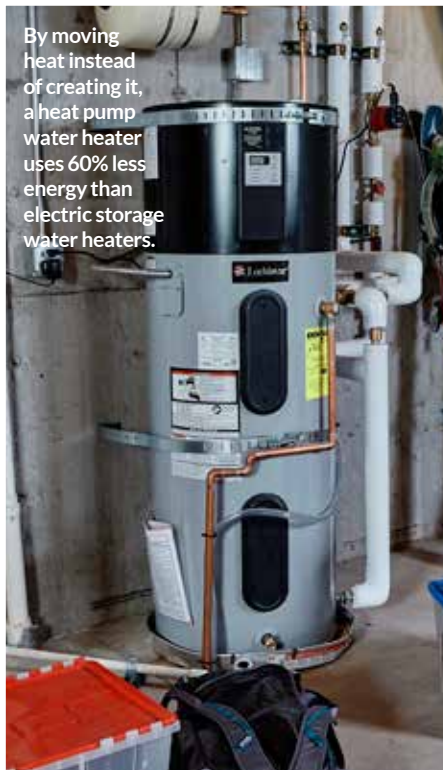
Improved controls make it easy to set the desired temperature and programming, including vacation mode, which saves energy when you are out of town. Some models offer Wi-Fi connectivity to be controlled by a smartphone from anywhere. Other helpful features include leak detection and automatic shutoff.

Installation considerations

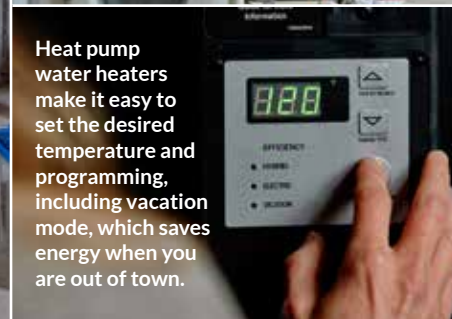
A heat pump water heater uses heat from a room to heat water. It tends to make the space about 2 degrees cooler, which is something to consider before installation. The ideal placement is in an unconditioned space, such as a garage or unheated basement. A heat pump water heater requires enough space around the unit to supply the air needed for efficient operation – about 750 cubic feet.

Heat pump water heaters tend to be slightly taller than storage water heaters and require additional clearance above the unit to access

By moving heat instead of creating it, a heat pump water heater uses 60% less energy than electric storage water heaters.



Ideal placement of a heat pump water heater is in an unconditioned space, such as a garage or unheated basement.



Heat pump water heaters make it easy to set the desired temperature and programming, including vacation mode, which saves energy when you are out of town.

the filter for cleaning. If your water heater is in a conditioned space or a room smaller than the unit requires, venting might be a solution for your installation.

Another consideration is noise. A heat pump water heater generates about as much noise as a modern dishwasher, so it may not be a good solution if the water heater is located where sound could be a nuisance.

Installing a heat pump water heater is much like installing a standard electric water heater, except for the location of the cold-water inlet, which is located at the bottom of the unit.

Because moisture in the air condenses when it is drawn through the heat pump, it also requires a condensate drain that must be routed to a drain or pumped outside the home. They typically require a 240-volt circuit, which might necessitate an electrical upgrade by a licensed electrician.

When to replace an old water heater

The life expectancy of a standard water heater is about 10 years. If your water heater is older than that or is showing signs of failing, consider replacing it with a heat pump water heater before it fails.

Finding the product you want is easier and potentially less expensive when it is not an emergency replacement. While heat pump water heaters are sold at a higher price than standard water heaters, the cost savings over time can offset the purchase and installation cost – and will result in a more energy-efficient home.

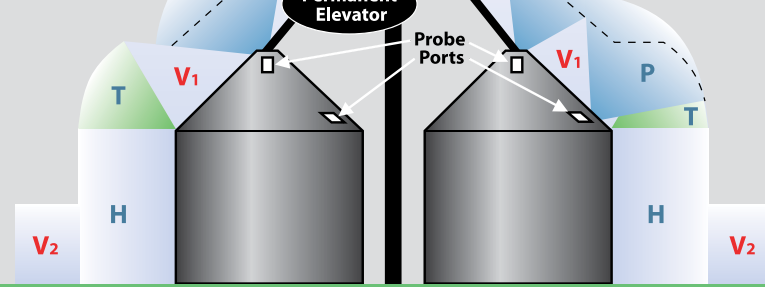
You also are likely to save by taking advantage of sales, rebates or tax credits. Check with your electric utility, state department of energy and federal tax information before purchasing a new water heater.

Miranda Boutelle writes on energy efficiency topics for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

Photo Credit: Hot Water Solutions

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

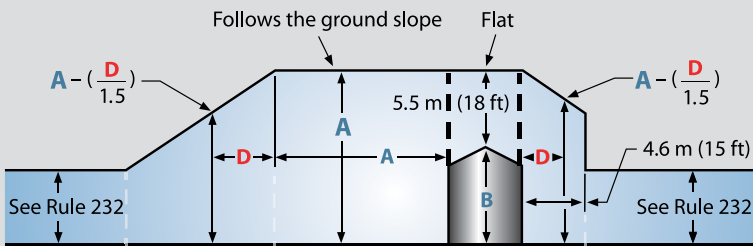
- P** = Probe clearance
5.5m (18 ft) required by Rule 234F1a
- H** = Horizontal clearance
4.6m (15 ft) required by Rule 234F1b
- T** = Transition clearance
- V₁** = Vertical clearance above a building required by Rule 234C
- V₂** = Vertical clearance required by Rule 232B



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

ELEVATION



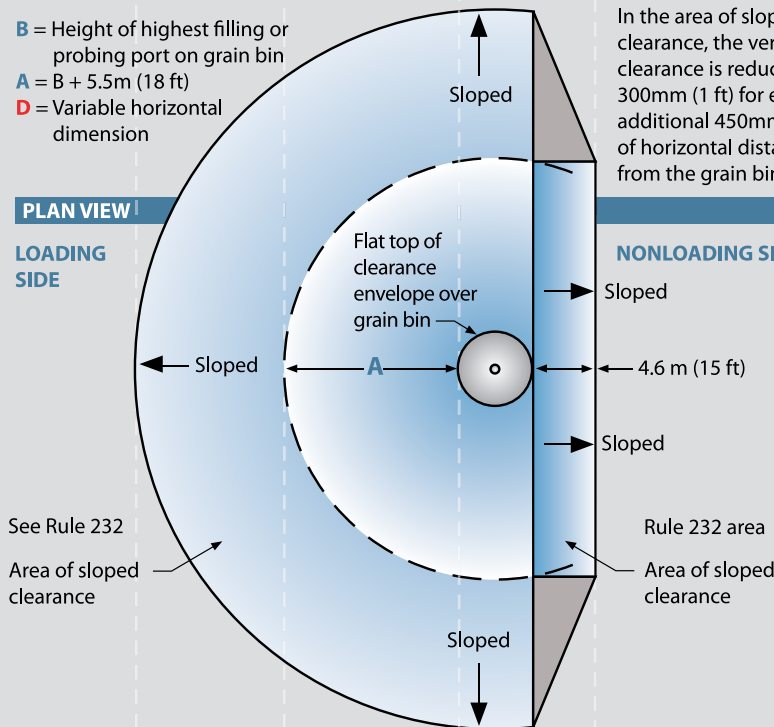
- B** = Height of highest filling or probing port on grain bin
- A** = B + 5.5m (18 ft)
- D** = Variable horizontal dimension

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

PLAN VIEW

LOADING SIDE

NONLOADING SIDE



See Rule 232
Area of sloped clearance

Rule 232 area
Area of sloped clearance

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MAINTAIN PROPER CLEARANCE AROUND GRAIN BINS

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

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

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

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

DO YOU REMEMBER AL BELL?

BY DARCY DOUGHERTY MAULSBY

Ever heard of “content shock?” You’ve probably experienced it. It’s the glut of information created daily (often online) that outpaces people’s ability (or interest) to take it all in.

Consider YouTube. More than 500 hours of content are uploaded every minute, according to the online video platform. That equates to more than 720,000 hours of new YouTube content daily. Even if you viewed all those new videos 24/7, it would take more than 82 years to watch just one day’s worth of content.

Does that inspire a sense of wonder, or do you just feel overwhelmed?

I thought about this after attending “Al Bell Day” at the State Historical Building last June in Des Moines. Bell, a former WHO Radio broadcaster-turned-world traveler, thrilled schoolchildren across Iowa for 30 years (1949-1979) with his booming voice, movie-star looks and educational movies filmed around the globe.

Remembering the magic

During Al Bell Day, I visited with his fans who had grown up in different parts of Iowa, from Boxholm to Pella to Alden, and stopped by to relive happy childhood memories. Some even brought their grandchildren to share a bit of the magic with them.

In this era of on-demand, never-ending content, perhaps it’s hard for kids to grasp why their grandparents were spellbound by this exotic world traveler and Iowa legend.

“My father, Al Bell, was one of those extraordinary persons who could be described as ‘larger than life,’” said Bell’s daughter Becky Bell-Greenstreet, who hosted the day-long festival and program. “When he roared into a school gymnasium, he was the Orient Express. He brought the world to Iowa school children.”

It helped that this adventurous

Becky Bell-Greenstreet, daughter of filmmaker/educator/entertainer Al Bell, visited with fans of her father during “Al Bell Day” at the State Historical Building in Des Moines in 2022.



filmmaker/entrepreneur/educator/entertainer brought exciting props – including live animals like Chow Chow dogs – and movies that offered many kids their first glimpses of the wider world. Bell (often assisted by his wife Rhea and his children) shot his films on location in Alaska, Africa, Scandinavia, Central America, Canada, Ireland, Austria, Hawaii, the Holy Land, Peru, Morocco, New York City and beyond. Many of these movies followed a simple plot, like “Sons of Florida,” where Bell and his son Doug searched for the Fountain of Youth.

Rising above content shock

A “weekend farmer” with land near Menlo, Bell spent part of his summers traveling with his family and making films. Then he worked tirelessly during the school year, providing more than 400 school programs annually, sometimes sharing four presentations

a day to various schools in a region. With Bell’s gift for storytelling and his flair for comedy and drama, his programs became the highlight of the school year for countless Iowa students.

While kids saturated in today’s high-tech world might find Bell’s films a little hokey, it’s likely that he would embrace the latest technology and might even be an online “influencer.” If he were a YouTuber, this master storyteller would probably rise above content shock and connect with a loyal audience, thanks to his authenticity, creativity and humor. I also suspect Bell’s views of the world would still inspire a sense of wonder, just like they did all those years ago in schools across Iowa.

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



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