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MARCH 2023

# iowa

ELECTRIC COOPERATIVE LIVING

Iowa co-ops support  
healthcare facilities

Managing electric  
supply chain issues

Irish-inspired recipes

Win a KitchenAid Cold Brew Coffee Maker ► See Page 3

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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!



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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](http://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.

# USDA RURAL DEVELOPMENT UNDER SECRETARY VISITS PELLA MANUFACTURING FACILITY

U.S. Department of Agriculture (USDA) Rural Development Under Secretary Xochitl Torres Small was in Iowa in February to announce \$74.7 million in 21 rural investments across the state. The investments will help modernize rural medical services, diversify food production and provide clean water in Iowa.

One of the stops on her Iowa tour included LDJ Manufacturing, located on Highway 164, west of Pella. Representatives from Pella Cooperative Electric Association (PCEA), Iowa Area Development Group and the Iowa Association of Electric Cooperatives welcomed the Under Secretary on her second visit to Iowa. USDA Rural Development State Director in Iowa Theresa Greenfield also accompanied the Under Secretary.

LDJ Manufacturing received Rural Economic Development Loan & Grant Program funds through PCEA of \$2.5 million last year to finance expansion



construction. Under Secretary Torres Small and the group toured the newly constructed 25,000-square-foot addition to LDJ's manufacturing facility on Feb. 1.

As the home of Thunder Creek Equipment for more than a decade, LDJ Manufacturing produces high-quality fuel and service trailers for agribusiness clients. Unprecedented demand for Thunder Creek products drove the expansion of LDJ's manufacturing footprint as the company grew to

more than 130 employees. In July 2022, LDJ broke ground on a new addition to accommodate increased production and warehousing as well as additional workstations and a tornado shelter. The new building was officially completed in December 2022.

View a list  
of the  
21 projects



Special thanks to PCEA for contributing to this story.

FROM THE  
**ARCHIVES**

## 75 YEARS AGO IN RURAL IOWA

2023 marks an important milestone for this publication! Seventy-five years ago, the Iowa Association of Electric Cooperatives began publishing a statewide newspaper for member-consumers, titled "IRECA News." Excerpts from the following article appeared in the March 1948 edition (verbatim content from our archives):

### REA Aids Iowan's Quest for Finer Poultry

A former college professor has turned Iowa farmer and developed one of the leading "farm-factories" of its type near here. The "factory" produces some of America's finest poultry.

The "plant" is located on the Linn County Rural Electric Cooperative Association lines three miles south of Center Point.

J.N. (Joe) Thompson is quick to give full credit for his success to REA (Rural Electrification Administration).

"Specialized poultry production would have been impossible without electricity," he declares.

The farm was connected to the Linn County lines in 1939. When the Thompsons moved in it boasted a yard light, a barn light and a few house lights.

He estimates he has more than \$1,000 invested in his wiring system. There are now 33 lighted pens. In each will be found electric immersion-type water warmers. The pen lights are switched on, dimmed and turned off automatically, saving Joe

many steps and keeping his chicks constantly on a regular schedule. Two electric incubators, having a total capacity of 2,000 eggs, assure Joe of pullout-clean flocks at all times. Electric battern brooders are in use.

One important item in poultry production, Joe declares, is his electric saw which enables him to speedily and economically make changes in the arrangements of brooders, laying houses, nests, etc., to keep up with the growth of his chickens and turkeys.

"I make changes around here as often as a housewife does," he grins, "and that electric saw really helps."



# IOWA CO-OPS LEVERAGE BASIN ELECTRIC'S RATE TO BUILD GRID-LEVEL BATTERY STORAGE

BY CATHY CASH

As more electric cooperatives pursue energy storage, a generation and transmission (G&T) co-op is offering a trial battery rate to help members deliver peak savings and learn more about the technology.


Bismarck, North Dakota-based Basin Electric Power Cooperative, which supplies electricity to 131 co-ops in nine states – including Iowa – incorporated a member-owned trial battery rate into its rate schedule in 2020. The special rate allows Basin Electric's all-requirements-contract members to try out energy storage technology to reduce peak demand costs.

Basin Electric says it benefits by learning how energy storage impacts its overall system.

"The rate gives our members the ability to own and operate batteries, up to a certain size limit, and share their monthly data with us, which then allows Basin Electric to gain a better understanding of how the batteries are performing for load management," says Elizabeth Erhardt, Basin Electric's rate and load analyst.

Two Iowa members of Basin Electric are taking advantage of the incentive so far.

Corn Belt Power Cooperative recently installed a 1.425-megawatt Tesla®



Corn Belt Power Cooperative in Humboldt, Iowa, installed a 1.425-MW Tesla® Megapack at its Hampton Substation under Basin Electric's trial battery rate.

Megapack at its Hampton Substation under the plan. The Humboldt-based G&T pooled its 10 member co-ops' individual allocations to qualify for the large system under the battery rate.

"We will use the battery project as a load-management resource to reduce peak demand costs," says Jacob Olberding, Corn Belt's vice president of power supply. "By doing so, we hope the batteries pay for themselves in 12 years."

Northwest Iowa Power Cooperative (NIPCO) combined allocations from its six member co-ops to deploy a 975-KW battery system at its Lawton Substation in 2021. The Le Mars-based G&T has discharged its battery about 74 times over the past 14 months to help shave peak demand costs.

"Discharging the battery helps to

hold rates stable between NIPCO and members and between members and member-consumers," says Chris Larson, NIPCO system planning and protection engineer.

The co-op sees the battery system as essential to meeting its members' values and future needs for affordable and reliable power.

"The project is testimony to one of the seven cooperative principles at work: cooperation among cooperatives," says Matt Washburn, NIPCO executive vice president and general manager.

"Without our member distribution cooperatives agreeing to combine their respective battery allocations, and Basin Electric's member rate policies, this project would not have occurred."

*Cathy Cash is a staff writer for the National Rural Electric Cooperative Association.*

## RELIABILITY REMAINS PARAMOUNT

POLICY MATTERS

Exciting new grid investments lie ahead, thanks to significant support from the federal government, but policymakers must be sure to prioritize reliability to ensure a successful energy transition, National Rural Electric Cooperative Association (NRECA) CEO Jim Matheson recently told industry leaders.

"We talk about all of the change in the energy industry, but I'll tell you something that hasn't changed for us [electric cooperatives] – job one is keeping the lights on," Matheson said in his address before the U.S. Energy Association's 19th Annual State of the Energy Industry Forum. "I fear that people in the policy world are not recognizing the importance of reliability."

He added, "Rolling blackouts in nine states during the December holidays demonstrated how vulnerable the grid and power supplies are to weather spikes and why any transition to new energy resources must be properly managed."

NRECA raises the issue of reliability at every turn, he added, because federal agencies can draft rules that inadvertently harm the grid.



# HEALTHCARE IS AT THE HEART OF IOWA COMMUNITIES

BY KAY SNYDER



At the heart of the principles that guide Iowa's electric cooperatives is the desire to improve the lives of the people and communities they serve. Access to medical care can be paramount to individual and family survival. In addition, hospitals and clinics are often among the largest employers in rural areas and are essential to the economic vitality of rural communities.

For decades, Iowa's rural utilities have leveraged the federal United States Department of Agriculture (USDA) Rural Economic Development Loan & Grant (REDL&G) program to provide funding for projects that create or

retain employment in rural areas. Local utilities pass through zero-interest loans to local businesses or create and grow revolving loan funds to support projects through program grants.

In fiscal year 2022 alone, Iowa led the nation in securing REDL&G funding for **26** projects, bringing **\$28.6 million** to the state to support projects.

"Iowa has developed an impressive system to support growth in rural Iowa," says Theresa Greenfield, USDA Rural Development state director for Iowa. "From the rural utility providers identifying and

supporting impactful projects to the grant writing and technical support from Iowa Area Development Group to the involvement of the USDA Iowa staff. I am proud to recognize all who contributed to another record-setting year through the REDL&G program."

Many of the REDL&G awards support healthcare projects. Here is a snapshot of some of the current projects that Iowa electric cooperatives sponsored.

## Pharmacy in Parkersburg

Brent Bovy, pharmacist and owner of Reinbeck Pharmacy, expanded his business by acquiring an existing pharmacy in the neighboring town of Parkersburg. Now operating as

Parkersburg Pharmacy, the space has been renovated, including the addition of consultation and vaccination rooms.

Providing vaccinations is a much-needed service that will assist in reducing the spread of infectious diseases among the elderly and at-risk individuals. Parkersburg Pharmacy also offers free delivery to residents in Parkersburg and surrounding Butler County communities. Butler County Rural Electric Cooperative secured a REDL&G pass-through loan to support the Parkersburg pharmacy.

### Health and wellness clinic in Peosta

Plans are moving forward to construct a new health and wellness clinic in Peosta, expected to open in 2024. To be called Vive IV Therapy, the clinic will consolidate and expand the services of three existing businesses operated by owners Stephanie Grutz and Alex Goerd. The clinic will provide a wide range of services to support those with complex illnesses, such as cancer and long COVID-19, to those seeking preventative strategies. The facility is expected to be 4,500 square feet, offering space for patient care, community and educational activities, and flex rooms. Central Iowa Power Cooperative is providing a REDL&G pass-through loan, and Maquoketa Valley Electric Cooperative will serve this community asset.

### Medical clinic in Merville

The Merville Area Medical Clinic is constructing a new 15,000-square-foot, bi-level medical facility in Merville. MercyOne is leasing the current space and will continue that relationship in the new state-of-the-art facility. The clinic will include 12 exam rooms, a conference room for patient and community education, a teleconference room and a digital X-ray machine. The clinic is located near the school parking lot, which will allow for helicopter landings. A drive-through area will accommodate testing and immunizations.

Woodbury County Rural Electric Cooperative supported this new facility by securing a loan and grant through the REDL&G program.

### Maternity center in Clarion

Iowa Specialty Hospital in Clarion experienced a 175% growth in the number of babies born in the labor and delivery department over the past five years. This prompted a project to remodel its existing hospital footprint to add additional labor, delivery, recovery and postpartum rooms, and specialty clinic space. The project is expected to be complete in 2023. Prairie Energy Cooperative and Corn Belt Power Cooperative provided REDL&G pass-through loans to support the expanded services.

### Outpatient and mental health counseling clinic in Humboldt

Humboldt County Memorial Hospital is a 21-bed, county-owned critical access hospital in Humboldt. Construction is underway on a 3,200-square-foot addition to house an outpatient therapy and mental health counseling clinic. In addition to patient rooms, two play therapy spaces will be available to support counseling for children. Therapy areas within the clinic will also be equipped with telemedicine technology allowing for off-site support and services as needed. The clinic is expected to be complete in early to mid-2023.

Midland Power Cooperative and Corn Belt Power Cooperative provided REDL&G funds for this project.

The cooperative principle of concern for community is demonstrated by helping rural communities provide easy access to quality healthcare. Projects like these are only possible through partnerships, dedication and the coordinated effort of many people working toward the same goal. Electric co-ops are proud to play an active role in supporting the vitality of Iowa's rural communities.

*Kay Snyder is the director of marketing and communications for the Iowa Area Development Group.*







# 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

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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

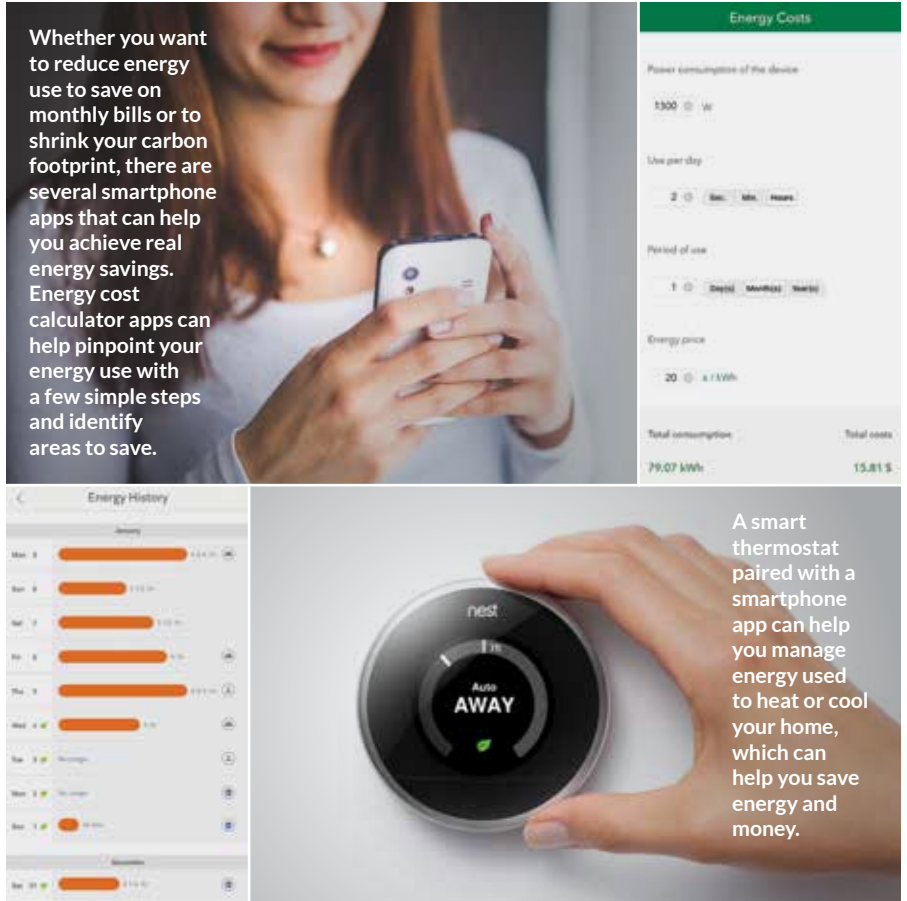
Smart thermostats and their accompanying apps are handy and promote energy-efficient behavior. These devices have become much more affordable over the years. You can purchase an ENERGY STAR®-certified smart thermostat for as low as \$100, which can save you approximately 8% on annual heating and cooling 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

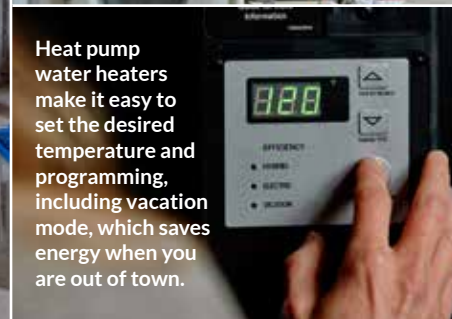
A heat pump water heater uses heat from a room to heat water. It tends to make the space about 2 degrees cooler, which is something to consider before installation. The ideal placement is in an unconditioned space, such as a garage or unheated basement. A heat pump water heater requires enough space 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.

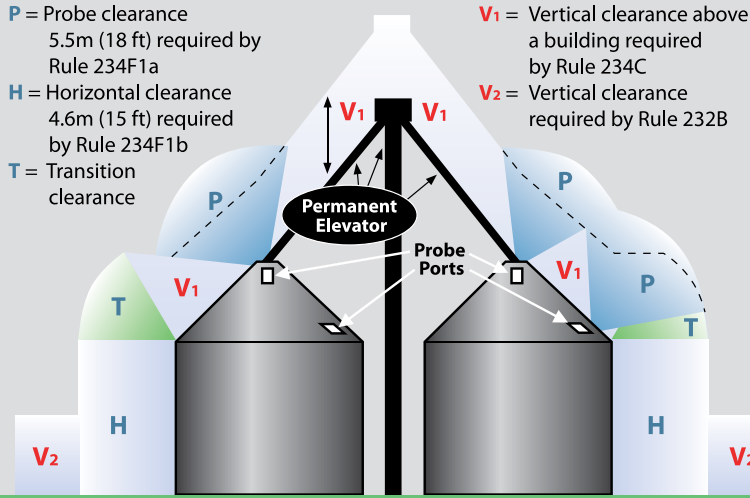
Finding the product you want is easier and potentially less expensive when it is not an emergency replacement. While heat pump water heaters are sold at a higher price than standard water heaters, the cost savings over time can offset the purchase and installation cost – and will result in a more energy-efficient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

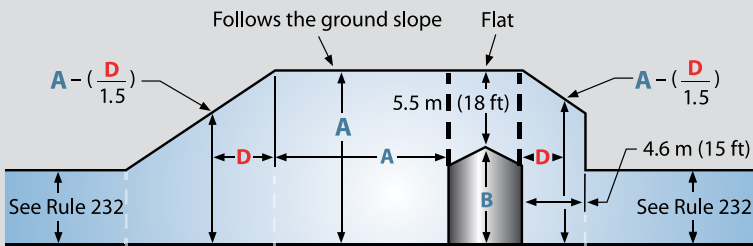
### Clearance envelope for grain bins filled by permanently installed augers, conveyors or elevators



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

**ELEVATION**



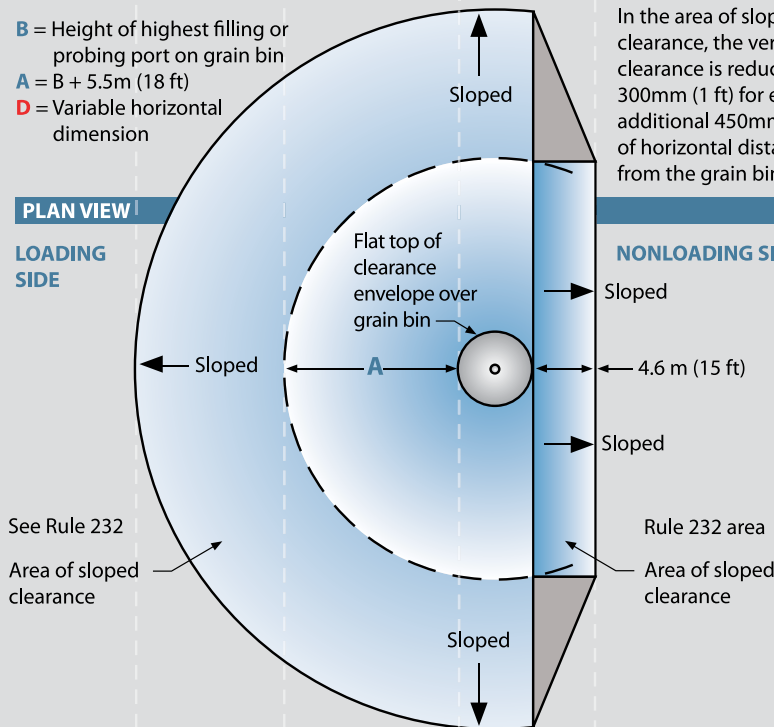
**B** = Height of highest filling or probing port on grain bin  
**A** = B + 5.5m (18 ft)  
**D** = Variable horizontal dimension

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**



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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](http://www.darcymaulsby.com).*

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