living with energy IN IOWA

Access Energy Cooperative℠
A Touchstone Energy® Cooperative

MARCH 2021

Access Energy Cooperative offers lineworker scholarship program ▶ See Page 5

Visit our website at www.accessenergycoop.com

EV charging station at Access Energy Cooperative office – See Page 12

Dig into the benefits of geothermal systems

Irish recipes for St. Patrick's Day

Iowa Association of Electric Cooperatives
A Touchstone Energy® Cooperative

Volume 74 • Issue 3

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living with energy IN IOWA

Touchstone Energy® Cooperatives of Iowa
www.touchstoneenergy.coop

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With geothermal heating and cooling systems, the power of the earth can be harnessed to heat and cool your home renewably and efficiently.

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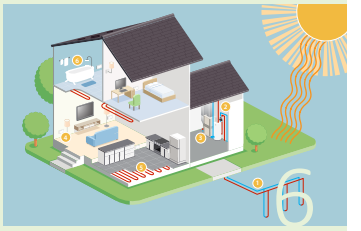

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ON THE COVER

Congratulations to Kim Scharfenkamp, a Southwest Iowa Rural Electric Cooperative member, for providing the cover image for this month's issue! She captured this beautiful image of a rainbow in Ringgold County. To have your photo considered for a future cover, email high-quality images (in high resolution) to editor@livingwithenergyiniowa.com. If we select your photo, you'll be awarded with $100.

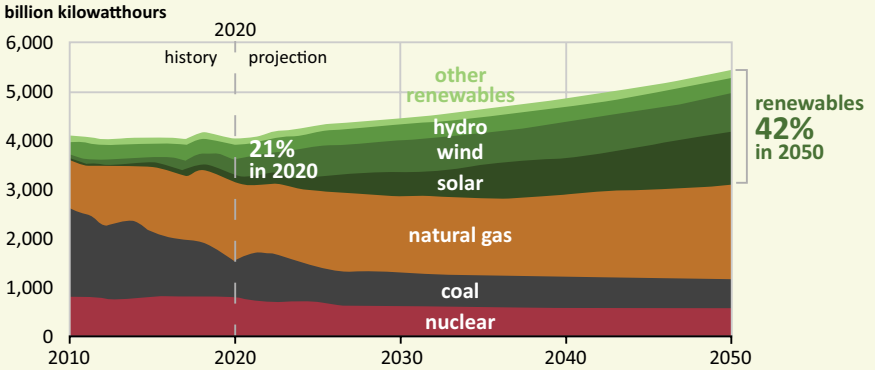
Setting realistic expectations for renewable electric generation

BY CHUCK SODERBERG

There has been a lot of talk lately about when America will transition to a 100% renewable electric grid. Some utilities, states and cities have announced plans to be fully powered by renewable sources by a specific date. Reducing carbon emissions is also a major focus of the presidential administration. As we talk about a clean energy economy, it's important to set realistic expectations about the timeline.

Iowa's locally owned electric cooperatives have been balancing the need for safe, reliable, affordable and environmentally responsible power for decades. Our state's electric co-ops have long promoted energy efficiency efforts with the belief that the greenest kilowatt-hour is the one you never use. From 2010-2019, Iowa's electric co-ops invested more than $120 million in energy efficiency measures, saving at least 4.9 billion kilowatt-hours. That's enough energy to power more than 490,000 homes for a full year.

U.S. electricity generation from selected fuels
AEO2021 Reference case (2010-2050)



Sources: U.S. Energy Information Administration, *Annual Energy Outlook 2021* (AEO2021)

Incorporating more renewable energy

As economic conditions allow, electric co-ops are incorporating more renewable sources of generation into the energy mix. Moving toward higher renewable percentages will take time as we are also responsible for balancing the needs of safety, reliability and affordability for the member-consumers we serve. While renewable energy continues to grow, it will take decades before that category outpaces natural gas and coal generation nationwide.

In its Annual Energy Outlook 2021, the U.S. Energy Information Administration (EIA) projects that the share of renewables in America's electricity generation mix will increase from 21% in 2020 to 42% in 2050. Wind and solar generation are responsible for most of that growth. By 2030, renewables will collectively surpass natural gas to be the predominant source of generation in the U.S.

According to the EIA report, the share of natural gas-fired generation in the U.S. will remain relatively constant through 2050, and the contribution from the coal and nuclear fleets will drop by half. Technological advances in battery storage will make intermittent renewable sources like wind and solar more reliable and dependable, which are the top reasons why natural gas and coal have been stalwart baseload generation sources.

Electric cooperatives are making great strides

Because electric cooperatives are owned and governed by the member-consumers we serve, it's important to keep you informed on how power supply decisions are made and why. Electric cooperatives are making great strides in reducing greenhouse gas emissions and incorporating more renewable energy sources into the generation mix. Like all things, change will take time. Be assured that we are moving in the right direction as we transition to a clean energy economy.

Chuck Soderberg is the executive vice president and general manager of the Iowa Association of Electric Cooperatives.

EDITOR'S CHOICE CONTEST

Win a smart home technology package

Smart home devices can add comfort and convenience to your life while helping to save energy. This smart home starter set features an all-new Echo Dot smart speaker with clock and Alexa, four smart bulbs and four smart plugs. The package is valued at $115. Learn more about these technologies on Page 14 of this issue.

Visit our website and win!

Enter this month's contest by visiting www.livingwithenergyiniowa.com no later than March 31, 2021. You must be a member of one of Iowa's electric cooperatives to win. There's no obligation associated with entering, we don't share entrant information with anyone and multiple entries from the same account will be disqualified. The winner of the Fitbit Charge 4 from the January issue was Mary Eller, Consumers Energy.

UPCOMING EVENTS

March 15	Scholarship deadline
March 15	NEW – Lineworker scholarship deadline
March 31	Photo contest deadline
April 2	Office closed for Good Friday
April 12	Lineworker Appreciation Day

Even when our office is closed, you can call us at 866-242-4232, 24 hours a day, seven days a week for answers to billing and account questions, paying your bill, and service interruptions.

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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LOCAL PERSPECTIVE

Beneficial electrification emissions and saves on

BY KEVIN WHEELER

Are you interested in saving money on energy costs and in doing your part to help the environment? Wouldn't it be great if you could do both? You can through a concept called "beneficial electrification." This utility industry term means that innovations in energy technologies are creating new ways to use electricity in a way that reduces overall emissions and energy costs.

In essence, by being plugged into the grid, the environmental performance of electric devices improves over time. As Access Energy Cooperative and other utilities shift to more options that include renewable energy sources to make existing generation technologies cleaner, electricity will require less fossil fuel per kilowatt-hour of energy produced.

So, here's how this concept impacts you. Electric appliances, such as your water heater, clothes dryer, oven and even your lawn care equipment have the potential to become greener. When Access Energy Cooperative's power generation cooperative: Associated Electric Cooperative, Inc. (AECI), takes advantage of advances in technology and the market at the generation point (how the electricity is produced), those efficiencies are inherently passed along to you, the consumer-member.

Electricity is getting cleaner

Because large appliances have a typical lifespan of about 10 years, the high-efficiency electric oven you have today could be powered by more renewable sources in the years ahead.

As Access Energy Cooperative is able to tap into more renewable options in the future, your electric appliance has the potential to become greener.

Small steps to help the environment

For people looking for more environmentally friendly options, choosing electric appliances, tools and cars is an easy solution. Whether through electric lawn mowers, blowers and weed trimmer or through electric water heaters and other appliances, beneficial electrification is a means to reducing greenhouse gases and helping our environment. It can also translate into a better quality of life.

How we're doing our part to help the environment

As the overall energy sector continues to evolve, Access Energy Cooperative and AECI strive to take advantage of the advances in technology and the market opportunities as they become available. This means we can leverage the flexibility of the grid to offer a broader range of renewable power selections as we continue to bring safe, reliable and efficient service to our members.

We also promote energy efficiency through programs like weatherization rebates and our Access to Green Energy Program (see right). In addition, through our SmartHub app, we offer our members the convenience and ability to manage and monitor their energy use. To save you money, we also offer a variety of rebates for both residential and business members. Visit www.accessenergycoop.com for details and specifics.

We care about our community because we live here too. I hope you'll reach out to Access Energy Cooperative, your trusted energy

reduces energy costs

partner, to discuss available renewable energy options and to learn about more ways to reduce your energy use. Because when you participate in the energy efficiency programs and incentives we offer, you're doing your part to save energy and better our environment. While each member's reduction might be small, together, they can lead to significant savings of money and emissions. And that means a brighter future for *all* of us.

ACCESS TO GREEN ENERGY PROGRAM

Want to take reducing your carbon footprint a step further? Members can participate in the "Access to Green Energy" Program. You can purchase blocks of green energy to be added to your bill. Details can be found on our website at www.accessenergycoop.com.

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

VEGETATION MANAGEMENT

Contractor news

Brady Bennett with Wilderness Land Management will be working as a contractor for Access Energy Cooperative in the areas around Batavia and Bonaparte. If you ever have a question about a serviceman representing the cooperative, please call our office at 866-242-4232.

WLM INC
RIGHT OF WAY CUTTING AND LAND CLEARING

LINEWORKER SCHOLARSHIP

Access Energy Cooperative offers lineworker scholarship program

Access Energy Cooperative is pleased to announce a new lineworker scholarship program! One $2,000 scholarship will be awarded per year to a student enrolled, or planning to enroll, in a one- or two-year electric lineworker program, such as the Northwest Iowa Community College Powerline program in Sheldon or the Utilities/Lineman Program at State Technical College in Linn, Missouri.

Award recipients may also become eligible for an internship at Access Energy Cooperative. Selection criteria will be based on academics; school, work, and community involvement; essay (see below); and an interview at the cooperative office (to be scheduled in March).

Timeline

- **March 15** – Application deadline
- **April 15** – Scholarship winner announced

  Award recipients have until March 31, 2022, to apply for the initial scholarship payment.

- If the award recipient requires more time to allow for acceptance in a qualified lineworker program, an extension must be requested in writing prior to expiration of the award. Contact mktg@accessenergycoop.com for information.

Eligibility requirements

- Must be a high school graduate
- Must maintain a grade point average of 2.5 or above
- Must reside in southeast Iowa in the general Access Energy Cooperative service area (Preference may be given to an applicant who is a member, or dependent of a member, of Access Energy Cooperative)

Disbursement

- Payment of the first $1,000 will be made upon completion of the first semester. To apply for payment, award winner must provide to the cooperative office: proof of enrollment for second semester and grade transcript for first semester.
- Payment of the second $1,000 will be made upon completion of the second semester. To apply for payment, award winner must provide to the cooperative office: proof of enrollment for third semester and grade transcript for second semester.

Application process

Where to obtain an application:

- At all area high school guidance counselor offices
- Contacting the Access Energy Cooperative headquarters office in Mt. Pleasant at 866-242-4232
- Visiting our website at www.accessenergycoop.com, and downloading the application and either faxing, mailing or bringing it to our office; or submitting the form online.

  Applications are due in our office March 15, 2021.

- Submit the following documents to: Access Energy Cooperative, Lineworker Scholarship, P.O. Box 440, Mount Pleasant, Iowa 52641
  - Application
  - High school transcript
  - Short essay describing future career plans and explanation of why applicant is interested in a career as a lineworker.

Digging into the benefits of

BY ERIN CAMPBELL

Later this spring, we'll see farmers out in the fields digging into the earth to plant crops. The ground beneath us has incredible benefits. In fact, you can also harness the power of the earth to heat and cool your home renewably and efficiently.

Geothermal heating and cooling systems – also referred to as ground source heat pumps – use underground loops to take advantage of the constant temperature below ground to keep you comfortable. In the winter, the loop system removes heat from the ground and transfers it into your living space. In the summer, the loop system transfers warm energy from your home to be absorbed by the cooler ground.

A proven technology

Geothermal technology isn't new; in fact, Iowa's electric cooperatives have been promoting geothermal systems to members since the 1980s. Jim Sayers was one of those co-op employees who worked to educate members about the many benefits of geothermal throughout his 34-year career in communications and energy services at Corn Belt Power Cooperative. Headquartered in Humboldt, Corn Belt Power Cooperative is a generation and transmission electric cooperative owned by its member systems.

Sayers retired from the co-op in 2018 and found an opportunity to continue educating others about geothermal technology's advantages as the cooperative engagement coordinator for the Geothermal Exchange Organization (GEO).

"You retire from a job, but you don't retire from your passion. And my passion includes Iowa's electric cooperatives and geothermal," says Sayers.

Efficient, renewable energy

Geothermal systems are supremely efficient, renewable and will save homeowners substantially on heating and cooling costs, according to Sayers. The average savings of geothermal compared to an aging conventional HVAC system is around $1,400 annually, accounting for 40%-70% savings. And while the installation cost of a geothermal system is higher than conventional HVAC systems, it is so efficient that it can pay for itself in as little as five to seven years. Rates and incentives are important in determining payback.

"The good news is that there are federal and state tax credits available to help defray the installation costs," says Sayers. "Currently, the federal tax credit for geothermal installation is 26%, and the Iowa tax credit is 20% of the federal credit, for a total tax credit of just over 31% of the geothermal installation cost in 2021."

So why is the installation of a geothermal system higher than installing a conventional HVAC system? It comes down to the loops. An underground loop system needs to be trenched or drilled in your yard to take advantage of the earth's constant temperature. Once installed, a water-based solution circulates through the loop system to transfer the heat energy. Electricity is needed to operate the heat pump, ground loop pump and distribution fan or pump.

Because it uses the earth, a geothermal system is the most efficient heating and cooling system. In fact, it is 400% more efficient than conventional HVAC systems. Geothermal systems are also known for having low maintenance costs.

Sayers says, "With all the attention on wind and solar these days, we often forget about geothermal as a renewable option. If a homeowner is considering investing in a solar array, I would encourage them to first think about energy efficiency measures and then consider installing a geothermal heating and cooling system because it uses stored, renewable thermal energy all day, every day, year-round."

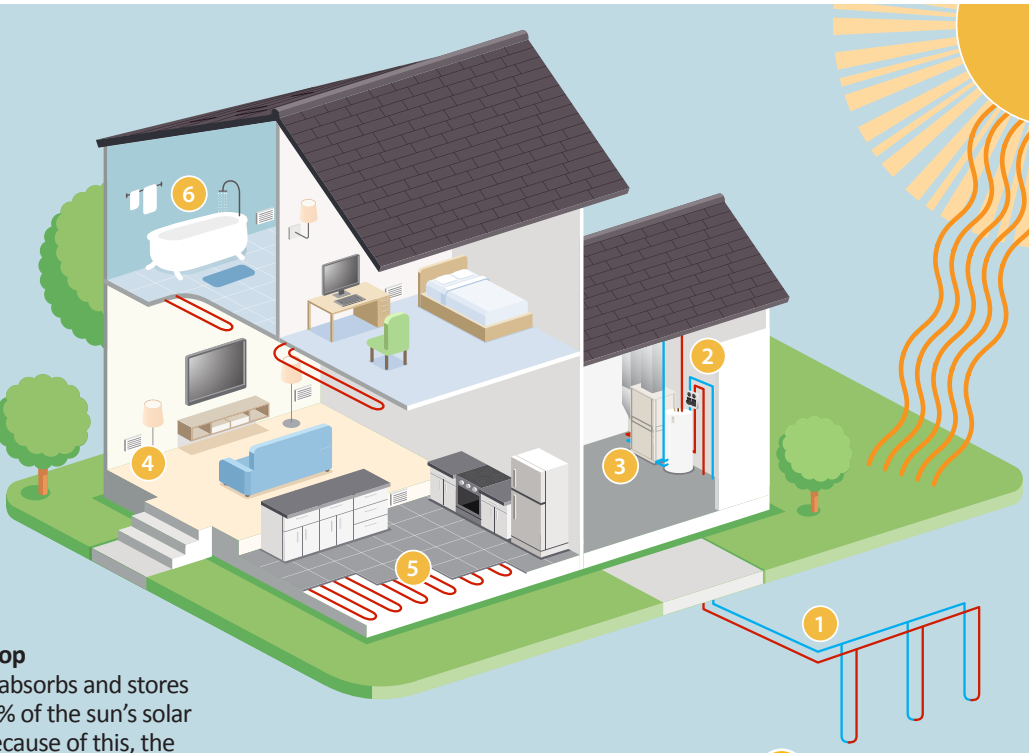
geothermal systems

Resources for more information

The cost of installing a geothermal system will vary by location, the size of your home, equipment installed and local incentives. GEO, a non-profit trade association that promotes the manufacture, design and installation of geothermal heating and cooling systems, maintains a list of geothermal system professionals you can contact at www.geoexchange.org/directory/.

Learn more about geothermal at GEO's consumer education website at www.geothermalforall.com. In addition to the tax credits, many of Iowa's electric cooperatives offer special geothermal electric rates and incentives to make the system even more affordable. Contact the member services staff at your co-op to learn more.

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



House graphic: Enertech Global

1 Ground loop
The earth absorbs and stores almost 50% of the sun's solar energy. Because of this, the temperature four to six feet below ground is consistently between 45-70 degrees F. A geothermal system transfers heat from one place to another using a ground loop field buried in the yard. The loop field circulates a water-based solution through a series of pipes.

2 Flow center
The flow center resides on your unit or a wall near the geothermal system. It pumps the water-based solution in the ground loop to the house or building unit to disperse heating or cooling.

3 Indoor heat pump
The loop field transfers heat to the home through an indoor geothermal heat pump kept indoors through forced air and radiant heating and cooling.

4 Forced-air heating and cooling
In a forced-air system, an air-handler disperses the ground's heat to air in a home or building through ductwork and vents. In the cooling mode, the process is simply reversed.

5 Radiant heating (optional)
Known as the most comfortable type of heating, radiant heating uses a series of pipes under a home or building's floor to circulate warm water, which heats the entire space evenly.

6 Hot water
A hot water assist, known as a desuperheater, allows the system to capture excess heat to assist a water heater. This cuts hot water costs 25-40%. Geothermal systems can also provide 100% of the hot water needed for a home.

Sausage Coddle

- 1 pound beer-flavored brats or pork sausages, cut into bite-sized slices
- ½ pound smoked bacon, cubed
- 2 onions, thinly sliced
- 3 carrots, chopped
- 4 large potatoes, peeled and sliced
- salt and pepper to taste
- 1 teaspoon parsley, dried
- 1 cup beef stock
- 1½ cups Guinness beer
- ½ cup heavy cream

Cook the sausages and bacon in a large skillet on medium heat for 10 minutes until browned on both sides. Spray or butter a 9x13-inch baking dish. Place ⅓ of the onions, carrots, potatoes and the meats in the baking dish, sprinkle with salt and pepper, if desired, and ⅓ of the parsley. Repeat layers two more times. Warm the beef stock in a medium saucepan over medium heat, add beer and cream. Do not boil. Once warm, pour over the casserole. Bake at 325 degrees F for 1½ hours until the vegetables are tender. *Serves 6*

Christine Mimick Keller • Norfolk
North West Rural Electric Cooperative

FUN FACTS

POTATO FAMINE
Potatoes transformed the Irish diet when they were introduced from the New World in the late 16th century. Ireland's cheap and plentiful food source was later decimated when potato harvests were hit by blight in the 19th century.

Champ

- 3 pounds potatoes, about 12
- 8 scallions
- 6 tablespoons butter
- salt and pepper to taste
- 6 tablespoons milk

Cut potatoes in chunks, boil in large pot with salted water to cover. Cook until tender, about 25 minutes, drain. Slice scallions, including some of the green tops. Melt butter in the pot used to cook the potatoes. Add the scallions, cook on low heat about 10 minutes. Peel potatoes and mash with salt, pepper and milk. Stir into scallions and heat through. *Serves 8*

Francene Holstein • Persia
Harrison County Rural Electric Cooperative

Corned Beef Casserole

- 1 large onion, sliced
- 1 medium/large head cabbage, shredded
- 2 cans corned beef hash
- 2 cans cream of mushroom soup
- salt and pepper to taste

Spray a deep sided baking dish (can use cast iron Dutch oven) with non-stick spray. Layer all ingredients evenly starting with the onions, then cabbage, corned beef hash, mushroom soup, salt and pepper. This usually makes 2 or 3 layers depending on size of baking dish. Bake covered at 350 degrees F for 45 minutes, uncover and bake another 15 minutes or until cabbage is tender. *Serves 8*

Robin J. Koob • Alexander
Franklin Rural Electric Cooperative

2-Cup Stew

- 2 cups stew meat
- 2 cups onion, chopped
- 2 cups potatoes, diced in 1-inch pieces
- 2 cups carrots, sliced in 1-inch pieces
- 2 cups celery, sliced in ½-inch pieces
- 1½ teaspoons salt
- 2 cups frozen peas
- 2 cups frozen whole kernel corn, optional

Bring meat to a boil, lower heat and simmer for 5 minutes. Strain broth; return to pan bringing meat and broth to a simmer. Add onions, potatoes, carrots, celery and salt. Cook until tender. Add peas and corn the last 5 minutes.

Vickie Johnson • Osceola
Clarke Electric Cooperative, Inc.

Irish Muffins

- 3 cups flour
- 1 cup raisins
- ½ cup plus 2 tablespoons sugar
- 1 tablespoon caraway seeds
- 1 tablespoon baking power
- 1 teaspoon salt
- ¼ teaspoon baking soda
- 1 egg
- 1¾ cups buttermilk
- ¼ cup butter, melted

Mix flour, raisins, sugar, caraway seeds, baking powder, salt and baking soda in large bowl. Beat egg and buttermilk together in a small bowl. Stir into flour mixture. Fold butter in batter. Spoon batter in a muffin tin (with paper liners). Bake at 400 degrees F for 20-30 minutes, until toothpick comes out clean.

Annalee Buffington • Marshalltown
Consumers Energy

Reuben Bake

- 2 tubes crescent rolls
- 1 pound Swiss cheese, sliced
- 1½ pounds deli corned beef
- 8 ounces sauerkraut
- ⅔ cup Thousand Island salad dressing
- 1 egg white, lightly beaten
- 3 teaspoons caraway seeds, optional

Unroll one tube of dough, press into greased 9x13-inch pan and bake at 375 degrees F for 8-10 minutes. Layer half of the cheese and all the corned beef. Combine sauerkraut and dressing, spread over corned beef. Top with remaining cheese. Put the second crescent roll over cheese. Brush with egg white. Top with caraway seeds if desired. Bake at 375 degrees F for 12-16 minutes. *Serves 4-6*

Melissa Schultes • Dedham
Raccoon Valley Electric Cooperative

Irish Stew

- 1 cup carrots
- 1 cup potatoes
- 1 cup cabbage
- 1 cup onions
- salt and pepper to taste
- 1 tablespoon sugar
- 2-inch thick brisket
- 1 cup water

In a large bowl, peel and cut carrots, potatoes, cabbage and onions. Add salt, pepper and sugar. Set aside. In a deep-dish, oven-durable pan place cut brisket, water, salt and pepper (can use cast iron pan). Bake brisket at 400 degrees F for 1 hour making sure water level stays 1 inch or more deep. Add veggies and bake covered at 350 degrees F for another hour. Check liquid level and keep at 1 inch or more at all times or veggies will burn. Can be cooked in a large oval slow cooker, adjusting heat as needed.

Betty Sorden • Webster • T.I.P. Rural Electric Cooperative

Blarney Bundt Cake

- 1 yellow cake box mix
- 1 package pistachio instant pudding
- 4 eggs
- 1 cup water
- ½ cup vegetable oil
- ½ teaspoon almond flavoring
- ¼ cup chocolate syrup
- powdered sugar

Beat cake mix, pudding, eggs, water, oil and almond flavoring together for 2 minutes at medium speed. Pour ⅔ of the batter into a greased and floured Bundt pan. Add chocolate syrup to the remaining batter. Pour this into the pan and swirl a bit with a knife. Bake at 350 degrees F for 50 minutes, test for doneness. Glaze with a thin frosting or dust with powdered sugar.

Carol DeJong • Sibley • Osceola Electric Cooperative, Inc.

TRADITIONAL STEW
Soups and stews are popular Irish dishes. A traditional Irish stew is very hearty and filling, with ingredients like potatoes, onions, carrots, diced lamb chops and Canadian bacon.

FUN FACTS

BILLIONS OF POUNDS
More than 41.5 billion pounds of beef is produced each year for St. Patrick's Day. About 2.5 billion pounds of cabbage is also produced for the same event.

FUN FACTS

SODA IS A BREAD
Soda bread is a classic Irish bread, often served with soup. This brown bread is made with whole wheat flour and buttermilk.

FUN FACTS

INVENTED IN AMERICA
Like St. Patrick's Day, corned beef and cabbage is strictly an American invention. In Ireland, cabbage is often paired with bacon or with lamb.

FUN FACTS

Wanted: Sweet Corn Favorites!
The Reward: $25 for every one we publish!

Iowa-grown sweet corn is a summertime favorite! Share your delicious recipes that use sweet corn as an ingredient. If we run yours in the magazine, we'll send a $25 credit for your electric co-op to apply to your power bill. Recipes submitted also may be archived on our website at www.livingwithenergyiniowa.com.

The deadline is March 31, 2021. Please include your name, address, telephone number, co-op name and the recipe category on all submissions. **SERVINGS: Please also provide the number of servings per recipe.**

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

MAIL:
Recipes
Living with Energy in Iowa
8525 Douglas Ave., Suite 48
Des Moines, IA 50322-2992

Electric bus fleets:
Saving fuel and helping the

BY MARIA KANEVSKY

Millions of Americans and thousands of Iowans depend on public bus transportation every day. Whether you're an adult on your way to work or a child going to school, you can rely on a bus to take you where you need to go.

But most buses in America are diesel-powered, which produce harmful exhaust fumes when breathed in and greenhouse gas emissions that contribute to climate change.

Electric buses are an emerging technology that can help address some of the issues caused by diesel-powered buses while still providing the same quality of transportation to many Americans.

Electric school bus programs are in progress in a few states such as Virginia, Maryland and Minnesota, but California leads the transition with a goal of replacing all of the state's school buses with electric buses by 2040 – a total of 30,000 buses.

Applications and technologies for electric buses

There are two main applications for electric bus fleets: school buses and public transit. For each application, there are three types of electric bus technologies that can be used: hybrid electric buses, fuel cell electric buses and battery electric buses.

A hybrid electric bus uses both an electric motor and a gasoline engine to power the bus. Electricity is generated through regenerative braking to charge a battery connected to the electric motor, which lessens the need for gasoline.

Fuel cell electric buses contain hydrogen fuel cells, which need to be refueled with hydrogen to charge the battery that powers the bus.

A battery electric bus is plugged directly into the grid to charge the battery that fully powers the bus.

Pros and cons with each technology

Each of these technologies has pros and cons. Hybrid electric buses are the easiest transition since they are closest to traditional diesel-powered buses. However, hybrid electric buses are heavier than traditional buses since they carry both an electric motor and a gasoline engine, which can reduce passenger vehicle capacity. Fuel cell electric buses have no tailpipe emissions and hydrogen is a renewable resource, but the cost is higher than any other electric bus technology type. Battery electric buses have no tailpipe emissions, are the most energy efficient and have low operating costs; however, they have a more limited driving range than other electric bus technology types.

Generally, electric bus fleets provide many benefits, such as fuel cost savings, maintenance cost savings and emissions reductions. Since there are fewer fuel costs and maintenance costs, school districts and transit agencies can save money over time by switching to electric buses. Electric bus fleets have fewer diesel emissions, or none at all, which improves overall public health by making the air cleaner for the surrounding community or school.

That said, there are still several barriers to overcome before making the full transition to electric bus fleets. For any electric bus technology, the main barrier is cost. For example,

One of the main challenges of transitioning diesel-powered bus fleets to electrified fleets is the current lack of charging infrastructure. New charging infrastructure will be crucial to support increased use of electric buses.

environment

battery electric school buses can cost up to $200,000 more than a comparably sized diesel school bus. If a school district or transit agency doesn't receive any outside financial support, the purchase can be difficult to justify. Additionally, new charging infrastructure will be necessary to support the electric buses, which will add to the overall cost.

Expanding use of electric bus fleets

Several areas of the country, like Seattle and Los Angeles, are making commitments to electrify their bus transit fleets in the next 20 years or so. Even smaller cities are moving toward electrification of buses. Iowa's first electric buses, a zero-emissions alternative to the current diesel-powered fleet, debuted in the Des Moines metro in October 2020.

Electric school bus programs are in progress in a few states, such as Virginia, Maryland and Minnesota. Still, California leads the transition with a goal of replacing all of the state's school buses with electric buses by 2040 – a total of 30,000 buses.

Many electrified fleet pilot projects show that electric buses can provide cost-effective and clean transportation to Americans, although there will be challenges along the way. While electrified fleets aren't mainstream yet, one thing is clear: partnerships between utilities, transit agencies and school districts will be crucial for success.

The shift toward electric buses will take time, but as progress is made, we can all expect to benefit from cleaner air and a more environmentally friendly future.

Maria Kanevsky is a program analyst for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives.

Iowa: Expanding the use of alternative fuels

The Clean Cities program coordinated at Iowa Economic Development Authority is a designated member of the U.S. Department of Energy's Clean Cities program. Public and private stakeholders work together to increase adoption of alternative fuels, advanced vehicle technologies and energy-efficient transportation strategies.

Iowa Clean Cities Coalition stakeholders include local governments, metropolitan planning organizations, private fleets, non-profits, associations, industry representatives, colleges and universities, and businesses committed to sustainable practices. Collaborative efforts include educating fleets, developing infrastructure to support alternative fuel vehicles, disseminating technical information, and raising awareness through meetings, workshops and webinars.

To learn more, visit www.iowaeda.com/iowa-energy-office/clean-cities.

- Fuel economy
- Idle reduction
- Biodiesel
- Natural gas
- Hydrogen
- Propane
- Electricity
- Ethanol

STUDENT LEADERS

Access Energy Cooperative scholarship program

Available to high school seniors: $9,000 in scholarships. Six $1,500 awards, two in each of the cooperative's three districts.

Applicants must be high school seniors receiving post-secondary education, and their parents or legal guardians must be members of the cooperative.

Where to obtain an application:

- At area high school guidance counselor offices
- By contacting the Access Energy Cooperative headquarters office in Mt. Pleasant at 866-242-4232
- By visiting our website and:
  – Downloading the application and either faxing, mailing or bringing it to our office; or
  – Submitting the form online

Applications are due in our office March 15, 2021.

Winners will be chosen and announced at their senior awards ceremonies.

When are the scholarships given?

$500 of the $1,500 scholarship will be awarded to recipients at the completion of their first semester of post-secondary education, with proof of enrollment for the second semester. The remaining $1,000 will be awarded after completion of the third semester, with proof of enrollment of the fourth semester.

For more information, and applications, visit our website at www.accessenergycoop.com.

THANK YOU!

We love hearing from our members and received this thank you in early February, when a winter storm impacted our service territory.

EV CHARGING STATION

Charge your electric vehicle at the co-op

Access Energy Cooperative has installed a Chargepoint electric vehicle charging station in the parking lot in front of our office in Mount Pleasant.

The charging station is available for public use for any electric vehicle. The current rate to use the charging station at Access Energy Cooperative is our regular single-phase rate for electric service at $0.10 per kwh.

If you have questions about charging electric vehicles, or whether or not an EV is right for you, visit our website at www.accessenergycoop.com under the "Going Green" tab for a section on electric vehicles.

LEGAL MATTERS

Statement of non-discrimination

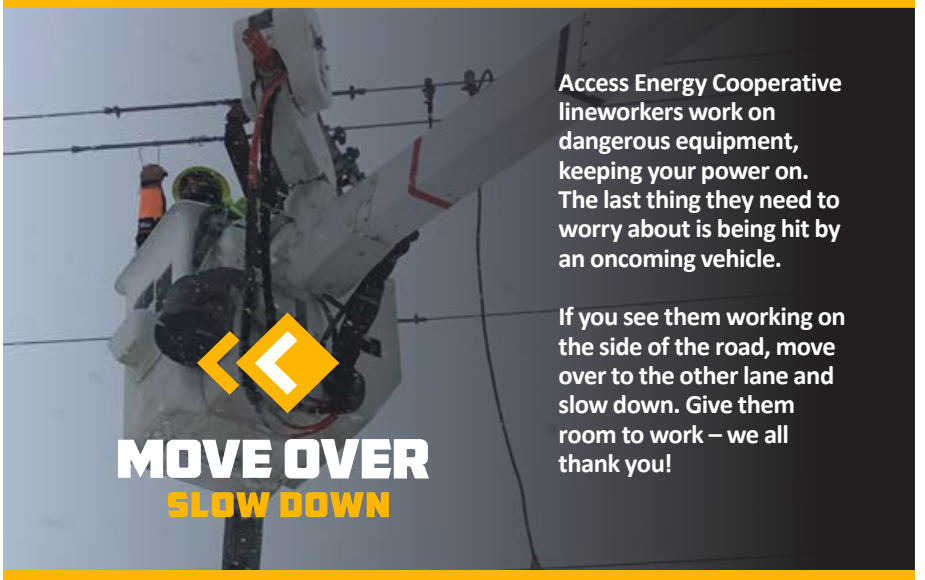
USDA prohibits discrimination in all its programs and activities on the basis or race, color, national origin, sex, disability, age, reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.)

Recipients are required to notify applicants with disabilities and Limited English Proficiency (LEP) persons of their right to free language assistance and accommodations and provide free language assistance and accommodations upon request.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cuts.html and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to the USDA by: mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; fax: (202) 690-7442; or email: program.intake@usda.gov.

This institution is an equal opportunity provider.

SAFETY MATTERS



Access Energy Cooperative lineworkers work on dangerous equipment, keeping your power on. The last thing they need to worry about is being hit by an oncoming vehicle.

If you see them working on the side of the road, move over to the other lane and slow down. Give them room to work – we all thank you!

Energy Efficiency Tip of the Month

Don't keep your refrigerator too cold. The Department of Energy recommends a temperature setting of 35 to 38 degrees for the fresh food compartment and zero degrees for the freezer. Make sure the refrigerator doors are sealed airtight to maximize efficiency.

Source: www.energy.gov

EMPLOYMENT OPPORTUNITY

Summer help wanted

Part-time help is needed this summer in Access Energy Cooperative's operations department. Applicants must have graduated high school by summer 2021 and must enroll in post-secondary education in the fall. Contact Diane Magnani at dmagnani@accessenergycoop.com.

PHOTO CONTEST

Win $50 in Access Energy Cooperative's photo contest

We are holding our annual photo contest with selected entries to be used in the 2022 Access Energy Cooperative calendar. Each photographer whose entry is selected as one of the 13 featured photos will win $50. Submit all entries by March 31, 2021, to:

PHOTO CONTEST, C/O
ACCESS ENERGY COOPERATIVE
PO BOX 440
MT. PLEASANT, IA 52641

Visit www.accessenergycoop.com for complete rules.

Smart home tech for your budget

BY MARIA KANEVSKY

Smart home devices can add comfort and convenience to your life, but the price tag for some of these devices can be another story. Since many smart home technologies are new and cutting-edge, the cost of owning these devices can sometimes be a major barrier. Luckily, there are several inexpensive options for smart home devices that won't break the bank while still offering nearly all the same benefits.

Smart home speakers, like the Amazon Echo Dot shown here, offer a wide range of features that provide consumers convenient control of smart home devices.

Photo Source: Abby Berry, NRECA

1. **Smart home speakers.** Smart home speakers provide a wide range of features, such as playing music, calling friends or family, or even locating a misplaced smartphone. One of the most useful aspects of smart home speakers is that they act as a smart home hub for your other smart devices. Each smart speaker comes with a voice assistant, like Amazon Alexa or Google Assistant, which can be used to control additional smart devices in your home.

   When choosing a smart home speaker, make sure your other smart devices are compatible with the system. For example, Google Assistant works best with other Google products, rather than Amazon or Apple products. Several smart home speakers, especially smaller, entry-level types like the Amazon Echo Dot and Google Home Mini, can cost as little as $30 or less. This makes them more affordable than the larger versions, like Amazon Echo and Google Home, while still offering nearly all the same features.

Smart plugs can make any device "smart" by connecting it to your Wi-Fi. Smart plugs can be controlled through a smartphone app and can also be used with smart home speakers.

2. **Smart plugs.** This technology works by directly inserting the smart plug into an outlet, then plugging your device into the smart plug. This can make any device "smart" by connecting it to your Wi-Fi through the smart plug. They can also be used with smart home speakers. One of the best features of a smart plug is that it can help you reduce your monthly energy use. This can be done by programming automatic shut-off times to prevent devices from drawing energy when they're not in use. There are plenty of inexpensive and well-performing smart plugs available under $20.

3. **Smart light bulbs.** Smart light bulbs can be controlled through your phone or by voice if connected to your smart home speaker. Some features include the ability to choose different lighting colors and shades, dimness levels and the ability to turn them on or off entirely. There is an extensive market for smart LED bulbs, but some of the less expensive options are the Wyze Bulb, the Lifx Mini and the Ikea Tradfri, with prices ranging from about $8 to $20 per bulb. For multi-bulb fixtures, an alternative to buying several smart bulbs is to buy a smart light switch to control the entire fixture.

If you're looking to buy more than one smart home device, make sure the devices are compatible with your smart home hub (Google Home Mini with Google products, or Amazon Echo Dot with Amazon products) to ensure the best performance of all devices. As with any smart home device, access to a secure and stable Wi-Fi connection will be crucial to properly use the technology.

Maria Kanevsky writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

Tiny huts on the farm

BY VALERIE VAN KOOTEN

A while back on Facebook, an acquaintance posted a picture of a field with little, peaked buildings dotting its surface. "What are these tiny huts?" she asked. "Are they some kind of tiny houses?"

Those of us who had grown up on farms chimed in immediately – they were A-frames, built for "free range" hogs but used more and more infrequently in the present when most porcine entities are now gathered in large confinement sheds.

A-frames were a huge part of my growing up on a hog farm, where we raised thousands of hogs annually. Each hut held a mama sow and her piglets, which made for strong, healthy pigs growing up in fresh air and able to move where they wanted. However, this also made the care of these hogs much more labor-intensive, as they would escape through the smallest of cracks in fences and gates and needed to have their houses replenished with straw in cold and wet weather.

Early morning chores

Many was the rainy early morning that my sister and I huddled under the blankets, savoring the last few minutes of warmth, fully expecting at any moment my father to yell up the steps: "Get up, girls. We need to bed A-frames."

Depending on the direction that the rain or snow was coming from, bedding up A-frames was a necessity to keep the animals dry and was a process that entailed riding on a cart or wagon behind the tractor with several straw bales on board. At each A-frame, my dad would stop the tractor, and Amber and I would throw a few "paragraphs" of straw into the hut, knowing that the sow would trample it down into a nest for her young.

Bedding A-frames was cold and wet but relatively safe and easy. Vaccinating the piglets was another story. Dad would spread ground corn out several hundred yards from the A-frames and the sows would, understandably congregate there. As fast as we could, we'd zip from one A-frame to another, catch the piglets by the back leg and hand them to my dad, who would jab them with the syringe and then drop them into a bushel basket so we'd know which had been inoculated.

Protective mothers

The mothers may have been otherwise occupied, but they were Tamworths and Durocs – strong, hearty stock but also fiercesome mothers. One squeal from a piglet and they were headed our way with a "woof" that was intimidating and a bite that could maim. We were equipped with a fence panel to hold up, if needed, to divert the angry assault. For a couple of tweenagers, though, the panel might as well have been a hula hoop. We didn't have the strength to hold it against a raging sow and knowing that made the entire process an exercise in speed and anxiety. We were, in effect, the weakest link.

The age of A-frames may be finished, and though I may wax nostalgic for them, I'll pass on fending off enraged sows, thank you.

Valerie Van Kooten is a writer from Pella who loves living in the country and telling its stories. She and her husband Kent have three married sons and two incredibly adorable grandsons.

WE NEVER STOP.
Not everyone starts their day at the same time, or in the same way. But no matter when or how, your local Touchstone Energy cooperative is there to help you power every moment of it.
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