Lightning arresters keep power flowing when the lightning strikes

Lightning rods protect buildings from lightning strikes. Lightning rods used to be installed on nearly every home and building, especially in rural areas. Now lightning rods are mainly used on high-rise structures.

Lightning rods are metal (often copper) and mounted on the roof of a building. A cable leads from the lightning rod to the ground. When lightning strikes the rod, it follows the cable into the earth, thereby protecting the building from the full brunt of the lightning strike.

Your electric co-op also has lightning protection on its equipment. Lightning causes havoc with transmission lines and your co-op's power lines. Lightning can strike a wire, flow downstream from it and damage a great deal of expensive devices, especially in substations. Lightning strikes can even cause transformers to fail. Underground equipment is not immune to lightning strikes either. Lightning can flow into underground cable and cause a fault or outage, requiring linemen to dig the cable up to fix it.

Your electric cooperative does not use lightning rods to prevent these kinds of problems. Your electric cooperative uses devices called arresters to protect its equipment from the damaging effects of lightning strikes.



This pole has multiple arresters on it. They divert lightning away from wires leading to an underground service to prevent lighting from causing a cable fault or outage.

How does an arrester work?

First, an arrester does not absorb or stop the lightning. Rather, it limits the voltage of a lightning strike and diverts it into the ground.

The main part of an arrester is made of a special material that works as an insulator during normal voltages and a conductor at higher voltages.

Arresters are installed between transmission lines and equipment like transformers. The arrester essentially serves as a switch. During normal operation, it is open to standard voltages. Once lightning strikes, it closes, which then diverts the lightning strike to the ground.

There is an old saying that lightning never strikes the same spot twice. Unfortunately, your electric co-op's transmission system takes numerous lighting strikes each storm season. It is thanks to equipment like arresters that the damage is minimized.

At A Glance



Vote on new bylaws at Annual Meeting

A special member meeting and vote on proposed new bylaws for BCREA will take place concurrently with the June 24 Annual Meeting.

See Page 5 for Annual Meeting details.



events. As this is the official member publication, member's story ideas, letters-to-the-editor and comments are welcomed. Andrea Christoffer, CCC, Editor "Owned by those it serves"

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Don't blow it with bathroom fans

You may love taking long showers or hot baths that transform your bathroom into a sauna. Unfortunately, all of that humidity can cause mold and air quality issues. This is where your bathroom exhaust fan assists. The bathroom exhaust fan removes that humidity and vents it outdoors.

Bathroom fans themselves are not super expensive to run. On average they use about \$3.50 a year in electricity. Larger bathroom fans with heaters can use up to \$110.

The hidden cost of bathroom fans occurs when venting humidity outside; these fans can also vent out air that you have already heated or cooled. If you allow bathroom fans to run longer than necessary, they are literally blowing dollars and cents out of your house. For this reason remember to turn it off after it clears your bathroom humidity.

To help with this problem, some bathroom fans come with humidity and motion sensors. A humidity sensor triggers the fan to turn on when humidity rises above a certain level and then to turn off when humidity is reduced. A motion sensor detects when someone enters the bathroom.

Next, look for the Energy Star label. Energy Star ventilation fans provide better efficiency, longer life and less noise with high-performance motors and improved blade design. Energy Star-certified ventilation fans that include lighting can use 70 percent less energy than standard models.

Correct sizing is also important for bathroom fans to ensure they run no more than necessary. Bathroom fans are measured by how many cubic feet of air they move per minute (CFM).

If your bathroom measures ten-feet



Bathroom fans themselves are not that expensive to operate. However, it is what bathroom fans do that can cost you. They vent air you already heated or cooled outside if you use them more than necessary.

by five-feet with an eight-foot ceiling, your sizing formula will look like this:

 $10 \times 5 \times 8 = 400$ cubic feet x 8 air exchanges per hour = 3,200.

3,200/60 = 53 CFM.

The Home Ventilating Institute also recommends adding an additional 50 CFM to every toilet and every toilet and shower/bath combination.

Other bathroom fan tips

 Most bathroom fans are mounted in the ceiling. Vent the bathroom air outdoors, rather than into the attic. If moist air is vented into the attic,

problems with humidity can occur.

- · If you install a ventilation fan over a shower, make sure it is UL-listed for that location.
- Beware of noisy ventilation fans. Ventilation fan sound is measured in sones. TVs typically operate at 3-4 sones. If you want a quiet fan, look for fans with sone-ratings that are two or less.
- Each year clean all of the buildup on the blades and interior casing of your bathroom fan; ensure it operates as efficiently as possible. 🖫

Smart window air conditioner enables remote operation

Imagine using your smartphone to turn on a window air conditioner so it's just the right temp as you head for home!

The LG LW8017ERSM features Wi-Fi connectivity so you can monitor and operate the window AC unit using your smartphone or tablet. Select the right operating mode, adjust the temperature when leaving home and prior to returning, program a schedule or monitor the filter life! The AC unit also works with Amazon Alexa and Hey Google so the owner can change settings with voice commands. Other features include

- This LG smart AC unit operates at sound levels as low as 52 decibels (in low mode), which is around normal conversation levels.
 - Energy Star rating features three cooling and fan speeds.
 - · Cools rooms up to 350 square feet.
- The unit's estimated yearly energy cost is \$65. Your exact costs will depend on use, local utility rates and the type and source of your energy.
 - Energy Efficiency Ratio (EER) listed at 12.1.
- Cools between 60 and 86 degrees Fahrenheit. Uses 8,000 BTUs of power to achieve and maintain your desired temperature.
- When it starts feeling a little humid in your room, select "Dry Mode" to remove 2.2 pints of moisture per hour.



- "Energy Saver Mode" turns the fan off when the compressor shuts off. To save energy the fan will turn on every three minutes and check your room's temperature. It only turns starts the compressor when your room's temperature has risen above your set point.
- Installs in double-hung windows with minimum heights of 13 inches and widths between 22 and 36 inches with the included installation kit.
- If a power outage occurs, the unit automatically restarts in its previous setting.

The LG smart AC unit costs approximately \$300 and is available in stores and online.

Safety

Assume power lines are energized

The best way to stay safe around electricity is to always assume a power line is energized.

Use the same safety wisdom with a padmount transformer. It is simply connected to an underground line.

In your yard always look up and look out when using a ladder. Always carry long items horizontally instead of vertically.

Always be careful when you are elevated: on your roof, on a hydraulic or scissor lift or on a ladder. Always have 10 feet between you and a power line at all times. Plus, apply the 10-foot rule to an object you are holding or touching since electricity could flow through the object to you.

Do not trim trees or limbs that come within 10 feet of a power line. Only specialized tree trimmers who are certified to clear trees within 10 feet of a power line should do so. A power line on the ground does not have to be sparking or buzzing to be live. Never go near a power line on the ground.

If anything gets caught in a power line, such as a drone or kite, never try to retrieve it yourself. Call your electric co-op for assistance.

Teach kids to never climb trees with power lines running above or through the tree branches. Teach children do not sit nor play on a padmount transformer's green box.

If you are in a car or tractor that comes into contact with a power line, pole or padmount transformer, staying in the vehicle is usually the safest course of action. Call 911 and wait for the electric co-op to arrive and shut off

the power. Do not get out until you have the go-ahead from the co-op's utility workers.

If you must exit a vehicle due to smoke or fire, jump out without touching the car or cab. Keep your feet together and hop as far away as you can.

If you see someone in trouble who could be exposed to electrical current, do not run toward the scene to help. Instead, call 911 and warn others not to approach the area. — Information courtesy of safeelectricity.org

Brown County Briefs

Office is open!



The office is now open for business. Members may continue to pay

their electric bill using the drop box, online bill pay through the website (www.browncountyrea.coop), mobile app or automatic payment from your bank account, credit or debit card. We look forward to seeing you!

Contractor work is underway

Central Applicators, Inc. continues working to maintain and control vegetation along the rights-of-way throughout the coop's service area. Plus, Southwood 2000 is inspecting poles in Linden, Cottonwood, Cambria, Courtland, Brighton and Lafayette townships.

Operation Round Up



The next Round Up Trust Board meeting is August 17. Organizations

interested in seeking funding should submit an application before that date. Application forms are available at www.browncountyrea. coop under the *Operation Round Up* tab in *Programs & Services*.

Struggling to pay electric bills?

Minnesota's Energy Assistance Program can help households pay energy bills, prevent energy disconnection, get fuel delivered and more. Both renters and homeowners qualify. The maximum annual crisis benefit has been increased. Plus, the application deadline was extended to September 1. Contact Minnesota Valley Action Council (MVAC) at 800-767-8139. Brown County residents can call 507-508-4041, for more information, income qualifications or to apply. (1)

BCREA notice of cogeneration



In compliance with Brown County Rural Electrical Association (REA)'s adopted rules relating to cogeneration and small power production, Brown County REA is obligated to interconnect with and purchase electricity from cogeneration and small power producers, whom satisfy the conditions as a qualifying facility. Brown County REA is obligated to provide information free of charge to all interested members, upon request, regarding rates and

interconnection requirements. All interconnections require an application and approval to become a qualifying facility. Any dispute over interconnections, sales and purchases are subject to resolution by the Brown County REA Board of Directors. Interested members should contact Brown County REA, 24386 State Highway 4, PO Box 529, Sleepy Eye, MN 56085 or call 800-658-2368. ©

Round up scholarships awarded



New Ulm High School seniors Alice Lewandowski (left) and Nicole Albrecht (center), pictured with BCREA Member Services Manager Marcia Solie, were among eight area students selected to receive \$250 scholarships through the cooperative's Operation Round Up program. Other recipients are Megan Ahlness, Christopher Berger, Rachel Black, Jacob Lux, Sophia Portner and Elise Swenson.

Cooling system tune-up check points (Details on Page 8)
Member name
Address
Technician checklist: Clean condenser coil; Check coolant level; Check coolant pressure; Check indoor filter; Check belt and lube motor, if needed; Test all controls; Blow out drain lines; Perform a visual inspection of the entire cooling system; Educate member on proper system operation and maintenance List cooling unit's brand, model and serial number:
Age of unit ER rating and BTU rating
Technician's signature

Brown County REA Notice of Annual Meeting

YEARS All Brown County REA members are invited and encouraged to attend the reconvened 84th Annual Meeting & special meeting for the purpose of adopting the proposed, new cooperative bylaws

- Enter from 245th Street, gravel road north of the headquarters, beginning at 4 p.m.
- Register, pick up ballot for election of directors in Districts 3, 6, 7 & 9 and new bylaws, and attendance gift. Complete and return the ballot before departing.
- Those planning to stay for the 6 p.m. meeting should keep the ballot and will be directed to park in the lot south of the auditorium. Attendees may remain in their vehicles and listen to the radio broadcast of the meeting on 89.1 FM.
 - No meal will be served. No prize drawings.
- Please bring the 2020 Annual Report, which was mailed to you in March, to scan your registration. Members who do not have their annual report may register manually. (3)

Details:

- June 24
- South Parking Lot **Brown County** REA Headquarters, 24386 State Hwy. 4, Sleepy Eye
- Voting: 4-6 p.m.
- Meeting: 6 p.m.

Update your contact information

Have you have changed your cell phone number or eliminated your land line? Do you have an e-mail address you'd like to share with BCREA? Having your up-to-date contact information will help us and help you by:

- Allowing us to contact you guickly and easily in case of a planned outage.
- Help us keep you updated about work being done in your area, which may affect your electric service.
- Keep the lines of communication open between you and your co-op in case there's an account issue.

Please check your billing statement; if the phone number listed is no longer valid or you'd like to add a cell phone to your contact information, please return the form below; otherwise, call BCREA at 800-658-2368 or 507-794-3331 or update using the online payment portal at www.browncountyrea.coop. @

Update my BCREA contact information

Name: _____ Delete ph # _____ Address: _____ Location number or account number if known: _____ Primary phone number: _____ Cell Ph? Yes or no Secondary/cell phone number: _____ Cell Ph? Yes or no E-mail address (optional): _____ ____ Yes, I consent to receive autodialed or prerecorded calls and/or text messages on my cell phone. E-mail notification options (check those you prefer to receive) ____ Payment received ____ Bill notification ____ Bill due soon ____ Due now ____ Credit card expiring Mail to BCREA, PO Box 529, Sleepy Eye, MN 56085-0529 or return

with your next bill payment. Thank you for helping us serve you better.

Twins Play Ball! Youth Clinic July 23



Brown County REA and Sleepy Eye Community Education are teaming up with the Minnesota Twins

to offer a free Minnesota Twins Play Ball! clinic Friday, July 23, at Prairieville Field (behind public school) in Sleepy

Youth ages 6-13 are invited to participate. In case of inclement weather the event will be moved into Sleepy Eye Public School.

Youth ages 6-9 are scheduled from 2 to 3:30 p.m. and the clinic for ages 10-13 is from 3:30 to 5 p.m. No cost to participate.

The program is presented in partnership with Great Rive Energy, which is made up of Brown County REA and 27 other rural electric cooperatives in Minnesota.

Created to promote baseball and softball throughout the region, the clinic provides hands-on instruction for boys and girls ages 6-13. Registration can be done online at www.mlb.com/ twins/play-ball/programs/youth-clinics. Click on Register Now in the Sleepy Eye, MN July 23 box. The Twins will provide safe, youth-friendly equipment and participants are asked to bring their own gloves. The format focuses on throwing, hitting and fielding.

Minnesota's energy-efficiency standards upgraded to benefit co-op members & co-op

After nearly four years of work, the Energy Conservation & Optimization (ECO) Act, a bill led by electric cooperatives, passed the Minnesota legislature at the close of the regular session with strong bipartisan support. Governor Walz signed the legislation May 25.

Locally, thanks go to Representatives Rod Hamilton and Bjorn Olson, and Senators Julie Rosen, Gary Dahms, Nick Frentz. Scott Newman and Bill Weber for supporting significant

Your electric co-op has offered Energy Star appliance and cooling rebates since 2003. This spring's Minnesota legislation is the second major upgrade to the program, which recognizes changes in technology and energy-efficiency. Electric co-op member-owners are the energy-efficiency winners.

and beneficial reform to the state's energy-efficiency standards, a cornerstone of the state's energy policy.

"Your local electric cooperative is excited about the improved benefits," stated Federated's General Manager Scott Reimer. "We will be able to pass along these benefits directly to our member-owners due to the proactive provisions in the ECO Act."

"The ECO Act gives electric cooperatives more flexibility to recognize and respond to emerging technologies and consumer behaviors and demands," added Mike Heidemann, Brown County REA CEO.

Utility programs that encouraged the adoption of technologies, like LED lighting and Energy Star rated appliances, have provided more than \$6 billion in net benefits to the state and supported local jobs in every corner of Minnesota. However, as new technologies have emerged, CIP became outdated and needed reforms to continue providing tangible savings and environmental benefits for energy consumers.

This bill allows utilities to create programs that incentivize adoption and installation of new technologies to help reduce total energy use and save member-owners money; another ground breaking reform around efficient fuel-switching substituting electricity or natural gas for a consumer-owner's current fuel source — is provided in the bill. As part of the reforms, efficient fuel-switching improvements will allow cooperatives to offer programs that substitute electricity for a customer's current fuel when those programs achieve a trifecta of:

- 1. Reducing the overall amount of energy;
- 2. Reducing greenhouse gas emissions; and
- 3. Reducing consumer costs.

For more than eight decades Minnesota's electric cooperatives have been providing local homes, businesses, schools, hospitals and other essential services with safe, affordable and reliable electricity. The ECO Act helps electric co-ops to further efforts to help member-owners save money and energy, plus continues a decades-long campaign to decarbonize our energy production.

To learn more about your local electric cooperative's energy-efficiency rebates, visit the cooperative's website or call and speak with the co-op's energy expert.



An electric water heater from your electric co-op has a limited lifetime warranty against leaks. Start the countdown and call today. Our price won't put you into orbit.



Are you keen on green beans? Share favorite green bean recipes

Green bean garden season draws near... Send us your favorite green or yellow string bean recipes, whether canned, pickled, in salads or hot dish! Mail to Editor, Federated Rural Electric, PO Box 69, Jackson MN 56143-0069 or e-mail to christoffer@federatedrea.coop by June 25. Add your name and phone number. Thanks for sharing with us! ①

Spaghetti Pie by Marcia Clay, Truman

7 oz. spaghetti
1 egg, beaten
2 c. milk
1½ c. milk
1½ lb. hamburger
4 oz. can of spaghetti sauce
1 lb. grated mozzarella
1 pkg. pepperoni
½ tsp. garlic powder
salt & pepper

4 oz. can of ripe olives, optional

Brown hamburger. Cook spaghetti. Add beaten egg and milk to drained spaghetti and pour into a $9x13^{\circ}$ pan. Continue to layer with sauce, pepperoni, and cheese. Cover with foil. Bake at 350° for $1\frac{1}{2}$ hours. Remove foil with 15 minutes remaining.

This can be made ahead of time and refrigerated until baking. It works great to serve company — just add a salad and garlic toast. ①

Correction on portable air conditioner costs

The May 2021 portable cooling units story from Page 3 requires a correction. The examples of costs to run window AC units per hour (\$1.26, \$1.10 and \$1.65) were incorrect. The correct costs should be 12 cents for the portable AC unit, while the window air conditioners cost 11 cents to 16 cents for one hour. Sorry for the confusion due to the misplaced decimal. ①

King's Casserole by Howard Blume. New Ulm

1% lbs. ground beef

1 large onion, chopped

½ green pepper, chopped

1 tsp. salt

1/4 tsp. pepper

small pkg. medium noodles

2 cans tomato soup

2 cans vegetable soup

Bacon (as many strips as you like...I like to pretty much cover the top of the casserole)

Fry the ground beef and when nearly done, add the onion and green pepper. Cook noodles and drain. Mix together all ingredients except the bacon. Lay the bacon slices across the top of casserole. Bake at 350°F. for one hour or until the bacon is done. ©



Pick up the phone before the shovel; call before digging!

1-800-252-1166



Call Gopher State One Call before doing any digging more than 12" deep — 48 hours before digging

for foundations, trees, tiling and more. You can also register at www.gopherstate-onecall.org or call 811. Call a licensed electrician to locate the underground lines on your side of the meter. (19)



Marcia Solie Member Services Manager

Staff Notes

Save with cooling rebates & tune-up

Baffled by the alphabet soup you hear when you start looking at heat pumps? SEER, EER, HSPF and COP are terms for comparing the efficiency of one heat pump to another. A higher number indicates a more efficient system, which saves money in energy costs over the life of the unit. You may have to pay more up front, but that's where Brown County REA's rebates come into play.

If it's time to replace your home's cooling system, consider an air source heat pump (ASHP). Unlike a furnace, an ASHP doesn't burn fuel to make heat. It uses electricity to move heat from one place to another. Even cold winter air contains some heat. When it's cold outside, a heat pump extracts outside heat and transfers it inside. When it's warm outside, it reverses directions and acts like an air conditioner, removing heat from your home.

Improvements in technology have introduced cold climate heat pumps capable of heating down to colder temperatures. However, a backup heating source is necessary. Brown County REA offers a residential rebate when the new heat pump is placed on the co-op's load control with a non-electric backup, typically a gas furnace. A new, load-controlled ASHP with a Heating Seasonal Performance Factor (HSPF) of 8.2 and higher qualifies for a \$1,000 rebate. A heat pump with an HSPF of 9.0 qualifies for a \$1,500 rebate and HSPF 9.5 and higher qualifies for a \$2,000 rebate when placed on load control with qualifying non-electric or storage backup.

A ductless mini-split heat pump is an economical and efficient option for homes without ductwork or where adding ductwork may be impractical or too expensive. During June, July and August, Brown County REA is offering bonus rebates on Energy Star residential Ductless Air Source Heat Pumps. Receive a \$750 rebate if electricity is your home's primary heat source and \$450 if you heat your home with fossil fuel.

To keep it running smoothly and efficiently Brown County REA advises members to have your air conditioner or heat pump tuned up regularly by a licensed, professional HVAC contractor. Members are eligible for a \$25 electric bill credit on the home cooling system tune-up every two years.

Units more than three years old and no tune-up in the last two years are eligible for a rebate if serviced by a qualified contractor who performs the tasks on the checklist on Page 4. The checklist is also part of the Heating & Cooling Rebate Form on our website. Submit the checklist, along with a dated copy of the contractor's bill to Brown County REA, PO Box 529, Sleepy Eye, MN 56085, or place it in the drop box outside the office.

Even if members have a tune-up done annually, a rebate will only be credited if it has been two years since the last tune-up. Stay cool this summer!



Brown County Rural Electrical Assn. 24386 State Hwy 4, PO Box 529 Sleepy Eye MN 56085

E-mail address: bcrea@bcrea.coop Website: www.browncountyrea.coop Phone: 507-794-3331 or 800-658-2368 Office hours: 8 a.m. to 4:30 p.m. Monday-Friday

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David Wendinger — 276-3166
Greg Mages — 794-3540
Joel Christensen — 828-4550
James Mickelson — 794-6298
Landon Sletta — 439-6559
The Board of Directors meets the last Thursday

Board meeting highlights

The BCREA Board of Directors held its monthly meeting May 27 in the REA headquarters auditorium. Discussion and/ or action was taken on the following items:

- Reviewed and approved the April 2021 board meeting minutes, new membership applications, member cancellations, payments to estates and assignment transfers.
- Reviewed and approved April 2021 payroll and financial statement.
- Reviewed results of the safety and loss assessment of the co-op's operations and systems conducted by Federated Rural Electric Insurance.
- Informed of members' recent Distributed Energy Resources additions.
- Updated on plans to resume disconnection of delinquent electric accounts in August.
- Updated on plans for the reconvened 84th Annual Meeting June 24 at the REA headquarters.
- Updated on operations and construction activities, including County Road 13, County Road 8 and Hillcrest Lane projects.
- Reviewed staff meeting & director meeting reports, plus individual director reports.

The next meeting is set for June 24 at the Brown County REA office in Sleepy Eye. ©