



GM'S REPORT

RIISING COSTS CREATE NEED FOR RATE ADJUSTMENT

As your electric cooperative, Firelands Electric is committed to keeping members' energy rates as low as possible. Our trustees, management, and employees work hard to keep costs in check and delay rate adjustments as long as possible.

Firelands' last rate change took place nearly three years ago. Following this adjustment, members paid around \$5 more on their monthly bills. Unfortunately, the current rate of inflation and rising material costs are now surpassing this modest increase.

We know that all of our members have been impacted by the recent inflation rates. Between June 2021 and June 2022, the U.S. Bureau of Labor Statistics reported a 9.1% jump in inflation — the largest since November 1981.

Nowhere has this been more evident than at the grocery store and the gas pump. The cost of chicken has gone up by over 15% and butter by 21%. The AAA Gas Prices calculator showed the average Ohio gas price was \$3.66 per gallon at the end of October 2022, up from \$3.17 just one year ago. That's an increase of over 15%, or about \$10 more per tank.

With a fleet of 22 trucks and other vehicles, Firelands Electric has also been feeling pain at the pump. In 2021, cooperative vehicles drove 161,000 miles, spending \$67,097 on fuel. In the first three quarters of 2022, mileage has reached 147,976, while the cost of fuel is already at \$69,407. That's already over 3.4% higher than all 12 months of 2021.

The cooperative is also managing the challenge of rising material costs. The price of equipment for a typical pole assembly has increased anywhere from 21% to 106% since 2021. Cross arm braces, for example, have increased 87% since March 2021, while basic poles have gone from \$363 to \$489 each (a 34% increase) over the past 12 months. In addition, annual tree-trimming expenses have risen more than 70% in three years. Check out the graphic on the next page for additional statistics regarding Firelands Electric's rising material costs.



Dan McNaull
GENERAL MANAGER



Dan Schloemer, President
BOARD OF TRUSTEES

Growing material and construction costs are key factors that must be taken into consideration as we wrap up year two of a four-year, \$14 million construction work plan, which includes rebuilding over 45 miles of lines and constructing a new substation. The line replacements are essential for maintaining reliability and meeting the increased energy demand in many areas of Firelands' system. Plans for the new substation include a larger transformer, which will replace a nearly 60-year-old unit that is very close to its maximum load capacity.

Unfortunately, increased maintenance and construction costs aren't expected to go away anytime soon, so Firelands Electric's board and management have had to make some tough decisions to ensure the reliability of our system. We never take rate changes lightly, but the soaring costs for almost everything that our system needs have made it necessary to implement an adjustment plan to cover the cooperative's expenses.

New rates go into effect this month and will be reflected on your January bill. The monthly distribution charge for residential and small commercial accounts will increase by \$2 per month, while the kilowatt-hour (kWh) charge

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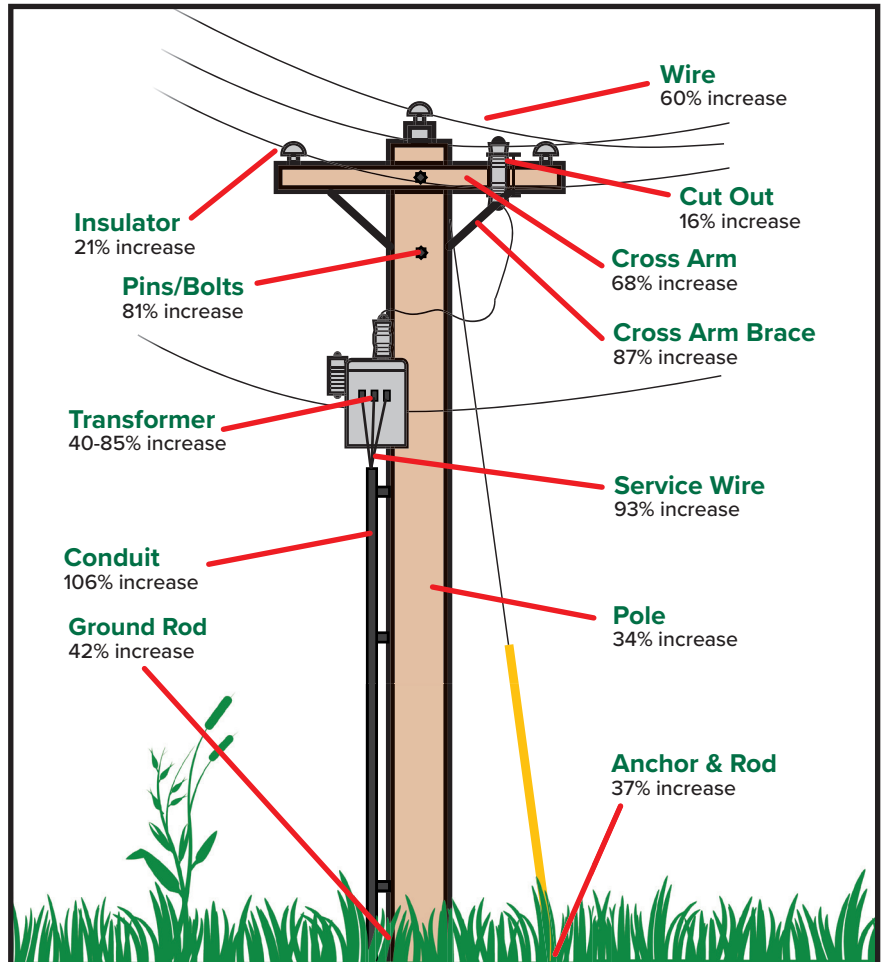
FIRELANDS ELECTRIC COOPERATIVE LOCAL PAGES

Continued from page 17

will also see a small increase. For the typical residential member using 1,200 kWh per month, this equates to an increase of 5.025%, or \$8.94 per month. That's an investment of less than \$0.30 per day.

Firelands Electric Cooperative strives to keep electricity costs as low as possible. But we also have an obligation to maintain our distribution system. Your board has delayed this rate adjustment as long as possible, but changes have now become necessary in order to maintain safe, reliable power to our membership. Rest assured, your cooperative will continue to make every effort to keep rising costs from further affecting our members. We are keeping a strategic and optimistic eye on the future.

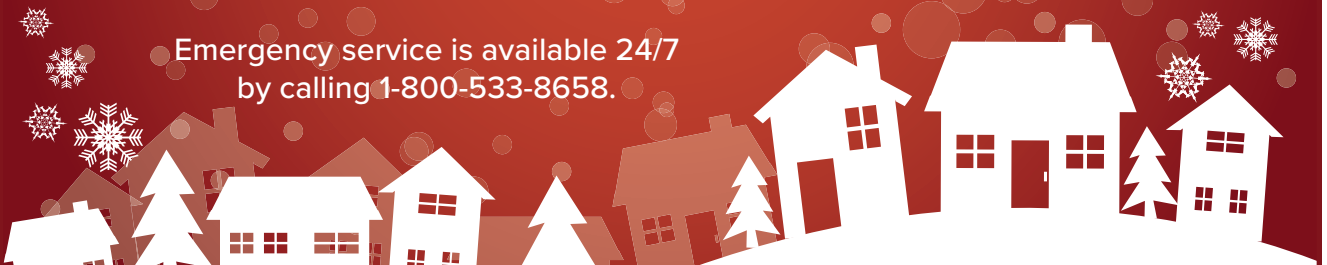
For additional information on changes to our rate structures and schedules, please visit the cooperative's website at www.firelandsec.com/rate-schedules.



Merry Christmas and Happy New Year!

**The Firelands Electric office will be closed
Dec. 23, 26, and Jan. 2 for the holidays.**

Emergency service is available 24/7
by calling 1-800-533-8658.



ENERGY EFFICIENCY

BUDGET-FRIENDLY

Winter EFFICIENCY



Improving your home's energy efficiency doesn't have to involve a huge commitment of time and money. While it is true that cost-saving measures like upgrading your HVAC system or windows can require a sizable upfront investment, there are also plenty of budget-friendly projects you can complete to reduce your energy consumption. Let's look at a few that can help you save money on your heating bill — which accounts for nearly half of your home's overall winter energy use.

Add coziness to your home

It's actually possible to feel warmer in your home without turning up the thermostat. The way our bodies perceive the temperature of a room is based more on the surfaces in the room than the air temperature. In general, harder surfaces feel colder. For example, your tile floor will feel cooler than your fabric sofa. Cold floors in a room make us feel colder. Adding an area rug to a hard-surface floor can make us feel warmer, even with the same setting on the thermostat. The same goes for windows. Windows are typically the least-insulated surface in a room and can feel cold in winter months. Adding or closing curtains can help make the room feel more comfortable.

Check your windows

Make sure your windows are closed and locked. Locking windows pulls the sashes tighter together, reducing gaps that allow air to flow through and cause drafts. If your sash locks don't form a tight fit, adjust them or add weatherstripping.

There's a variety of window weatherstripping products available for less than \$20. Most are simple to install and only require tools you most likely already have around the house, such as scissors and a tape measure. Temporary solutions such as caulk strips, putty, pull-and-

peel caulking, or window insulation films can be used if you rent your home and can't make permanent changes.

Seal your doors

Weatherstripping doors is another easy do-it-yourself project. Make sure your doors seal tightly and don't allow drafts to pass around the edges or under the door. Make sure any doors leading to an unheated space, like outside or into a garage, are sealed tightly. If you can see light around the edges or underneath the door or feel air movement when the door is closed, you are losing energy.

Because doors need to open and close easily, expect to do a bit of adjusting after installing weatherstripping. If weatherstripping isn't installed correctly, it can make the door hard to close. Making it too loose, however, defeats the purpose.

Close the damper

If you have a fireplace, make sure the damper is closed when you're not using it. Leaving the damper open is equivalent to leaving a window wide open in the winter. The money you just paid to heat your home will go right out the chimney. The only exception is some gas fireplaces that need to remain open for gas fumes to exit the home. If you have a gas fireplace, check the owner's manual for more information on the proper damper position.

The next time you consider turning the thermostat up a few degrees, try some of these tips first to stay warm and leave increased energy bills out in the cold. For additional energy-saving tips, visit Firelands Electric Cooperative's website at www.firelandsec.com/energy-education.



YOUTH PROGRAMS

- Graduating seniors who live in a home served by Firelands Electric Cooperative are eligible to apply.
- Applicants must have a cumulative grade-point average of 2.5 or above on a 4.0 scale for the Career Scholarship.
- A grade-point average of 3.5 or above is required for all other scholarships.
- Selected finalists will be interviewed at the Firelands Electric Cooperative office on Monday, Feb. 20, 2023.
- Applicants will be judged on scholastic record, school and community activities, cooperative knowledge, and a personal interview.

Complete rules and applications will be available by Dec. 1 at www.firelandsec.com/children-members-scholarship, by contacting Firelands Electric's member services department at 1-800-533-8658, or by visiting your high school guidance department.

Scholarships will be awarded as follows:

CAREER SCHOLARSHIP

This \$750 scholarship (formerly named the Technical-Trade Scholarship) is for students planning to enroll in a career-based education program following graduation. Examples include but are not limited to, dental hygienist, phlebotomy, nurse, vet tech, electrician, HVAC, plumbing, auto mechanic, or welder.

COLLEGE SCHOLARSHIPS

- First place: \$1,800
- Second place: \$1,600
- Third place: \$1,400
- Fourth place: \$1,200
- Fifth place: \$1,000
- Sixth place: \$750
- Two Honorable Mentions: \$500 each
- Two Judges' Choice awards: \$500 each

The first-place college scholarship winner will also be eligible to compete at the statewide competition in Columbus on April 12, 2023, where he or she can win up to \$4,100 in additional scholarship awards from Ohio's Electric Cooperatives.

CLASS OF 2023 SCHOLARSHIPS



Application deadline is Jan. 20, 2023

Visit www.firelandsec.com/children-members-scholarship for complete rules and applications.

High school sophomores and juniors!

Apply for a life-changing leadership
experience in Washington, D.C.

What is Youth Tour?

The Ohio's Electric Cooperatives Youth Tour is an annual leadership program sponsored by Firelands Electric. A weeklong, all-expenses-paid trip to Washington, D.C., Youth Tour gives outstanding high school students the opportunity to meet with their congressional leaders at the U.S. Capitol, make new friends from across the state and country, and see many of the famous Washington, D.C., sights. During this one-of-a-kind tour, participants also gain a better understanding of American history and their role as a citizen.

Electric cooperatives from 43 states send nearly 2,000 delegates on the tour each year, including approximately 40 students from co-ops throughout Ohio. Firelands Electric Cooperative will choose up to two delegates to attend the 2023 Youth Tour.

**Application deadline:
Jan. 20, 2023**



June 17–23, 2023

Successful applicants:

- Must be a current high school sophomore or junior.
- Reside in a home receiving power from Firelands Electric Cooperative.
- Submit a completed application, including portion completed by a school official.
- Include a letter of recommendation from a guidance counselor, principal, teacher, or community or organization advisor.

Complete rules and application materials will be available by Dec. 1 at www.firelandsec.com/youth-tour-experience.

**For more information and to apply, visit
www.firelandsec.com/youth-tour-experience.**



RENEWABLE ENERGY

SEPARATING **FACT** FROM **FICTION**

UNDERSTANDING COMMON SOLAR ENERGY MYTHS AND RENEWABLE BATTERY STORAGE

As residential solar has gained popularity, there has also been an increase in the amount of misinformation out there. Firelands Electric Cooperative strives to be your trusted source of energy information, whether your energy is generated from traditional sources or from renewables such as solar. Installing residential solar on your home is a big investment, so we want to help our members separate fact from fiction and give you the tools you need to make the right decision for your home.

DISPELLING SOLAR MYTHS

MYTH: Electric cooperatives do not support residential solar installations.

FALSE. Firelands Electric has supported residential solar installations for years. In fact, the cooperative has more than three dozen members with solar systems, some of which have been in place for well over a decade. While we do enforce specific safety requirements for solar interconnection, these are in place to protect you, your home, the co-op's lineworkers, and others in the community who share your distribution lines. Firelands also utilizes a comprehensive net metering system to accurately record

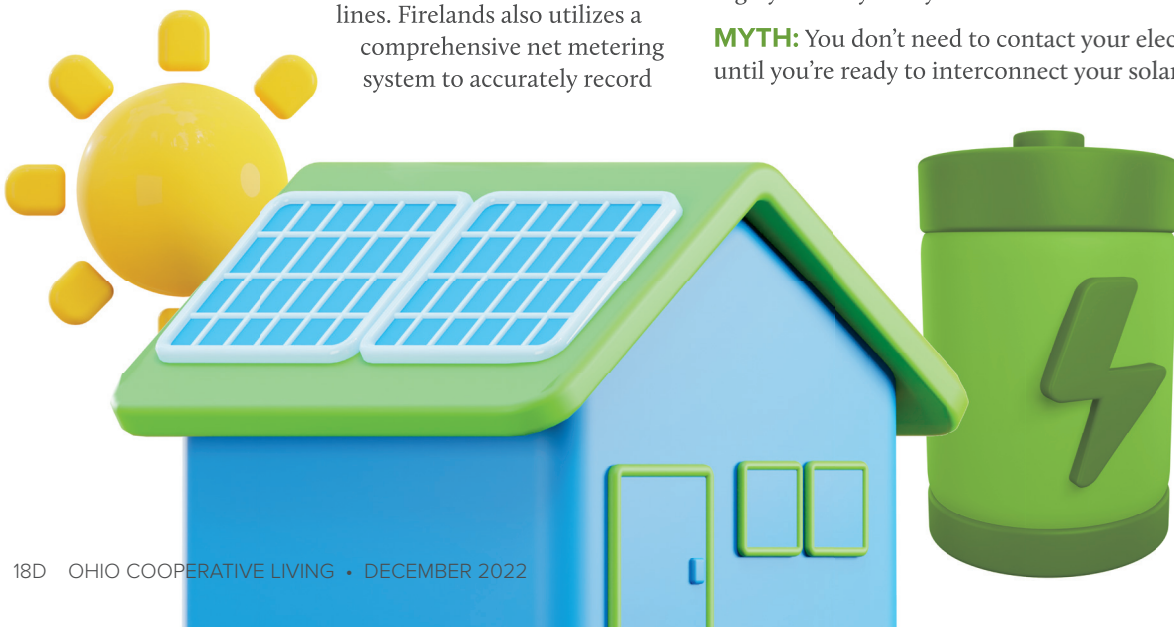
your total electric consumption, separately tracking what portion is generated by your renewable system and how much is used from cooperative sources.

MYTH: Your electric bill will be reduced to zero or near zero as a result of your solar panels.

FALSE. While the national solar generation capacity factor average is 40%, a typical home installation in Ohio has a capacity factor of about 14%. A small-scale solar system in Ohio will annually produce 1,250 kilowatt-hours (kWh) for every 1 kilowatt (kW) of installed capacity. For example, a 7-kW system will provide approximately 8,750 kWh per year.

Since the average Ohio home consumes 14,400 kWh per year, solar-powered homes still rely on the cooperative for about half of their power needs. The cost of the power purchased from Firelands to supplement solar production and the standard monthly distribution charge (used to cover ongoing operation and maintenance of the co-op's lines and equipment) make it highly unlikely that your electric bill will ever be zero.

MYTH: You don't need to contact your electric provider until you're ready to interconnect your solar system.



FALSE. Involving Firelands Electric early in the process allows for a contractor-homeowner-cooperative partnership that will help ensure the best possible outcome for you. Firelands can perform an in-depth analysis of your consumption history, provide an estimate of the payback on your investment, and explain the interconnection process and safety requirements.

MYTH: Solar panels are good options for members on low income or who struggle to pay their electric bills.

FALSE. Zero-money-down solar systems may seem enticing on the surface. We urge extra caution when entering this kind of contract, however. If it seems too good to be true, it probably is. These offers often come with inflated costs, high interest rates, extended payment terms, additional insurance premiums, a property lien, or other undesirable terms. Always check the fine print. Firelands has been your trusted energy advisor for more than 85 years, and we're happy to help review any contracts before you sign on the dotted line.

MYTH: Solar contractors/salespeople are your best source of information for solar power.

MAYBE. No one knows solar installations better than the contractor. Likewise, no one knows electricity (billing, net metering, interconnection, etc.) better than your electric cooperative. If you're considering solar for your home, the best solution is to establish a contractor-homeowner-cooperative partnership early in the process so there are no surprises.

If you're interested in installing your own residential solar system, please make Firelands Electric Cooperative one of the first places you look to for information. Check out our website at www.firelandsec.com or call us at 1-800-533-8658. We're here to help answer any renewable energy questions you may have.

THE BATTERY STORAGE PREDICAMENT

While the number of solar installations continues to grow every year, the issue of battery storage is a major factor preventing renewables from supplying a larger portion of the world's energy needs.

The intermittent nature of renewables like wind and solar creates reliability concerns. Batteries can store excess energy to be used when the sun's not shining or the wind isn't blowing, but the amount of storage needed is huge. According to Robert Bryce, author of *A Question of Power: Electricity and the Wealth of Nations*, a 2018 analysis showed that in order to reach California's energy goal of 80% renewables, the state

would need 9.6 terawatt-hours of battery storage. For comparison, the Tesla Powerwall 2 (a battery system for residential renewables) holds about 13 kWh of energy. That's equal to the installation of 700 million Tesla Powerwalls, with each resident needing roughly 18 Tesla Powerwalls totaling \$120,000.

Nationwide, Bryce says this cost would be roughly \$1 trillion. Even the 20 gigawatt-hour (GWh) annual battery production of Tesla's Gigafactory near Reno, Nev., is capable of only storing three minutes' worth of the U.S.'s yearly electricity demand.

This lack of adequate storage is a constant challenge for the electric industry. According to Bryce, there is only enough utility-scale battery capacity to back up about 0.5% of the installed renewables in the U.S. — and it only lasts about four hours. As recently reported by the National Rural Utilities Cooperative Finance Corporation (CFC), the addition of battery storage isn't keeping pace with new wind and solar installations. In 2021, only 3.4 gigawatts (GW) of storage were added, while new renewable systems totaled around 32 GW. Solar and wind generation also made up about 16% of the U.S.'s electric generation in the second quarter of 2022. During peak hours, however, renewables contributed only an estimated 8.5%.

While battery storage may help us increase the use and reliability of renewables in the future, unfortunately, the current technology and lack of capacity make it inadequate.

There is hope, however. The Inflation Reduction Act includes an incentive for investing in battery storage systems. Projections from the researchers at Wood Mackenzie indicate this will significantly increase the amount of investment in developing better battery storage in the utility industry, which is an exciting possibility for electric providers and consumers alike. Until utility-scale batteries are more feasible, the best option for an uninterrupted supply of electricity is a diversified portfolio like the one used by Buckeye Power. As the provider for all 25 of Ohio's electric cooperatives, Buckeye Power practices an all-of-the-above approach, using a combination of coal, natural gas, solar, biomass, and hydro to keep our lights on and businesses running.



CO-OP NEWS

CREATING *kilowatts*

Thirty-five Firelands Electric Cooperative members and guests visited the Cardinal Power Plant, located along the Ohio River in Brilliant, Ohio, on Sept. 14.

Following an introductory presentation, attendees participated in a guided tour of the plant. Highlights of the Cardinal tour included the state-of-the-art control room and electrostatic precipitators that remove 99% of all fly ash particles. Also of interest was the 423-foot-high closed-cycle cooling tower, which keeps evaporation loss below 1.8%. These two features are just a portion of the more than \$1.2 billion in environmental measures that make Cardinal one of the cleanest coal-fired power plants in the world.

Owned by Ohio's 25 distribution cooperatives, Buckeye Power's Cardinal Plant has the capacity to produce 1,800 megawatts of electricity. Power is generated at

23,000 to 25,000 volts, and transformers outside the plant then step up the voltage to 138,000 and 345,000 volts to transmit it efficiently to cooperative members' homes and businesses. The plant provides electricity for over 1 million Ohioans in 77 of the state's 88 counties.

To produce electricity, the plant's pulverizers grind coal into a fine, powder-like consistency. The powdered coal is then burned at high temperatures to turn water into steam. This steam is directed into turbines, which drive the generator that produces electricity.

Further information about Firelands Electric Cooperative's power supplier, Buckeye Power, is available at www.firelandsec.com/power-supply. View additional photos from the 2022 Cardinal Plant Tour at www.flickr.com/photos/firelandsec/albums.



CARDINAL
OPERATING COMPANY

EVENTS



15th annual STEP UP FOR SOLDIERS DRIVE

For 15 years, Firelands Electric Cooperative has supported U.S. military personnel during the holiday season by serving as a collection location for donated care package items. We are proud to join forces once again with local radio stations WLKR-FM and K96-FM to support USO Ohio's 2022 Step Up for Soldiers annual drive.

Beginning Veterans Day, Nov. 11, and running through Friday, Dec. 16, members of Firelands Electric and the surrounding communities can deliver donated care package items to the co-op's office, located at 103 Industrial Drive in New London. Items may be dropped off in the collection boxes located right inside the front entryway during regular business hours, Monday through Friday, 7:30 a.m. to 4 p.m.

Suggested donation items include razors, cotton swabs, tissues, deodorant, toothpaste, sunscreen, ear plugs, playing cards, chewing gum, hard candy, beef jerky, trail mix, and snack packs. Additional information and a complete list of recommended donation items are available on our website at www.firelandsec.com/uso-ohio, as well as on our Facebook page.

The USO of Ohio serves military families throughout Ohio and northern Kentucky. To learn other ways that you can help or to make a tax-deductible monetary donation, visit <https://ohio.uso.org>.

2022 CHRISTMAS LIGHTING CONTEST

Firelands Electric Cooperative invites members to submit a photo of their indoor or outdoor Christmas lighting display for a chance to win a \$50 bill credit.

From Nov. 21 through Dec. 16, members may email a high-quality digital photo of their lighting display to members@firelandsec.com or submit one through the online link at www.firelandsec.com/contests (maximum file size of 10 MB).

Be sure to include "Christmas Lighting Contest" in the subject line and provide your name, address, and phone number. Photos may also be mailed to: Christmas Lighting Contest, Firelands Electric Co-op, P.O. Box 32, New London, OH 44851.

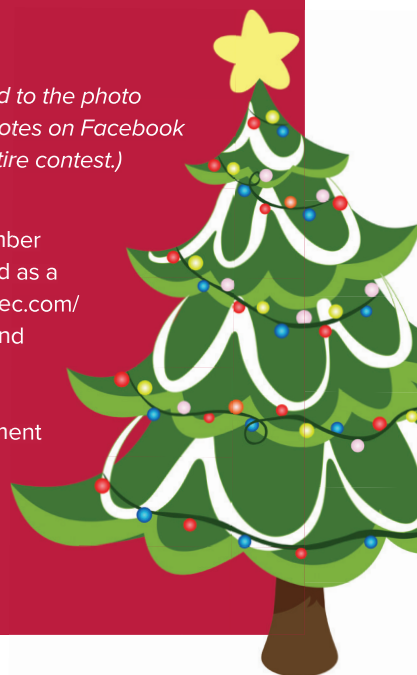
Submitted photos will be posted in an album on Firelands Electric's Facebook page every Friday throughout the contest.

This year, a total of three winners will be announced on Dec. 21, with each one receiving a \$50 bill credit.

A winner will be selected in each of three categories:

1. Biggest Display
2. Best Theme
3. People's Choice (*Awarded to the photo receiving the most likes/votes on Facebook over the course of the entire contest.*)

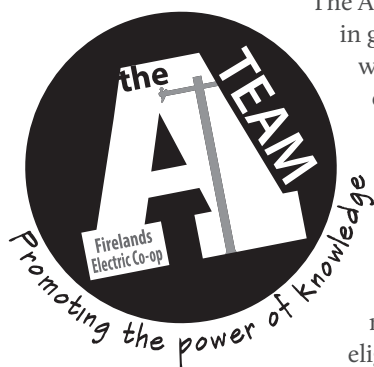
There is a limit of one entry/ photo and one prize per member address. Prizes will be applied as a bill credit. Visit www.firelandsec.com/contests for complete rules and to submit your entry. Contest questions may be directed to the member services department by emailing members@firelandsec.com or calling 1-800-533-8658.





CO-OP NEWS

Academic excellence



The A Team recognizes students in grades 6–8 for their hard work and dedication in the classroom. Students who live in a home receiving its power from Firelands Electric Cooperative and who have a minimum of three A's on their most recent report card are eligible to enter.

A drawing will take place at the end of each grading period, and three students will be chosen to receive an Amazon gift card. Winners will also have their photo published in an upcoming issue of *Ohio Cooperative Living* magazine and be featured on the co-op's website and social media outlets.

The next drawing is Dec. 10.
Visit www.firelandsec.com/team
for complete details.

Stealing electricity and meter tampering are crimes!

Stealing electricity or tampering with a meter is serious business — and it's against the law! This includes anyone other than the co-op removing the electric meter tampering tag or pulling the meter. Theft of utility electricity is a first-degree misdemeanor if the value of the stolen electricity plus any utility equipment repairs is less than \$150. It's a fourth-degree felony if more than \$150.

Tampering crimes carry similar penalties. Tampering is defined as “to interfere with, damage, or bypass a utility meter, conduit, or attachment with intent to impede the correct registration of a meter or the proper function of a conduit or attachment.” Conviction of tampering can mean from six months in jail and a \$1,000 fine to up to five years and a \$2,500 fine.

Meter tampering costs all of us. And it's downright dangerous. If you witness someone tampering with an electric meter, please contact Firelands Electric Cooperative at 1-800-533-8658.



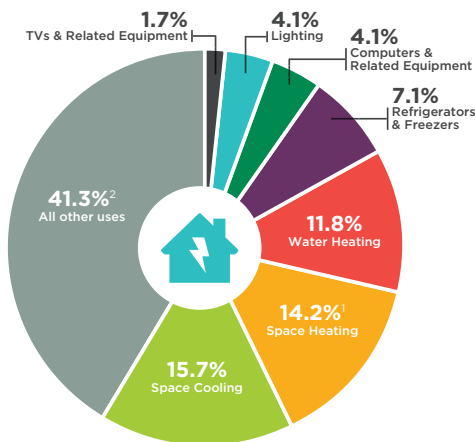
STATEMENT OF NONDISCRIMINATION

Firelands Electric Cooperative is an equal opportunity provider and employer.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, at any USDA office, or call 1-866-632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter by mail to the U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410; by fax to 202-690-7442; or email to program.intake@usda.gov.

How Americans Use Electricity

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



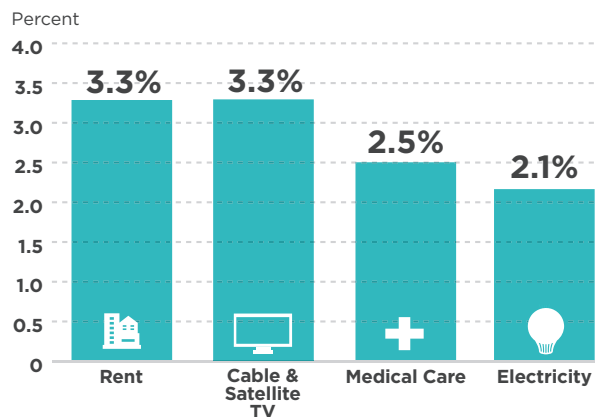
Source: Energy Information Administration 2021

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

ELECTRICITY REMAINS A GOOD VALUE

The cost of powering your home rises slowly when compared to other common expenses. Looking at price increases over the last five years, it's easy to see electricity remains a good value.

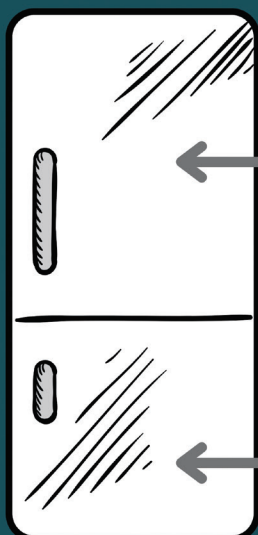
Average Annual Price Increase 2016-2021



Sources: U.S. Bureau of Labor Statistics
Consumer Price Index

Keep Food Safe During and After a Power Outage

Refrigerated or frozen foods may not be safe to eat after a power outage. Use these tips to minimize food loss and reduce risk of illness.



4

Refrigerated food will last four hours. After four hours, place refrigerated foods in a cooler with ice.

24 OR 48

Food in a **half-full** freezer will last 24 hours. Food in a **full** freezer will last 48 hours.

Food Safety Tips

1. Keep refrigerator and freezer doors closed as much as possible.
2. Throw out any food with an unusual odor, color, or texture.
3. Throw out perishable food in your refrigerator after four hours without power or a cold source (like a cooler with ice).

When in doubt, throw it out!





COOPERATIVE UPDATE

BOARD MEETING *highlights*

Firelands Electric Cooperative's board of trustees met Sept. 27 and covered the following items:

- Board President Dan Schloemer reported that the cooperative received 48 membership applications for approval by the board.
- General Manager Dan McNaull reviewed the report for a recent safety and training event.
- In the absence of Director of Operations Don Englet, Line Superintendent Zach Collins reported on recent activities and projects in the operations department, including recent challenges with utility pole orders and training attended by two operations employees.
- McNaull provided a recap of the ACRE Co-op Owners recognition breakfast held earlier in the month.
- The board discussed appointments to the People Fund Board. Schloemer appointed Mary Rees for another term.
- McNaull advised the board of a public meeting scheduled for Oct. 5 at 5 p.m. at South Central Elementary regarding AEP's New London 69-kV line project.

- Director of Finance and Accounting Tabi Shepherd reviewed the August financials and reported on recent accounting and billing department activities.
- McNaull reviewed the monthly tree-trimming and outage reports, noting that employee shortages were affecting some contractors' availability to bid on vegetation maintenance projects.
- Schloemer reported on an Ohio's Electric Cooperatives meeting held at the COLT training facility that he recently attended.
- Director of Communications and Technology Andrea Gravenhorst reviewed recent activities involving the member services and IT department.

Firelands Electric Co-op is democratically controlled and governed by local people committed to policies that result in a safe and reliable electric system, fair rates, financial responsibility, and superior member service.

The cooperative's next board meeting is scheduled for Tuesday, Dec 27. If you would like to attend the next scheduled meeting, please contact the Firelands Electric office at 1-800-533-8658.

FIRELANDS ELECTRIC COOPERATIVE, INC.

OUTAGE HOTLINE

1-800-533-8658

OFFICE

103 Industrial Drive
P.O. Box 32
New London, OH 44851
1-800-533-8658

OFFICE HOURS

Mon.-Fri. 7:30 a.m.-4 p.m.
www.firelandsec.com



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Kevin Reidy
District 6

Rob Turk
District 7

GENERAL MANAGER

Dan McNaull

HAVE A STORY SUGGESTION?

Email your ideas to:
members@firelandsec.com

Firelands
Electric
COOPERATIVE
A Touchstone Energy® Cooperative

