



Buckeye REC

Your Touchstone Energy® Cooperative 

Member Handbook



4848 State Route 325 South, PO Box 200, Rio Grande, OH 45674
800-231-2732 | www.buckeyerec.coop



Welcome to Buckeye Rural Electric Cooperative!

You have joined 18,000+ fellow members in parts of nine southeastern Ohio counties who receive their electricity from Buckeye REC and who also own the business that serves them. This is why rural electric cooperatives are different. You not only rely on us to provide electric service, but you also have an ownership stake in the co-op and elect the trustees who set the policies by which our business operates.

Buckeye REC is one of 25 electric cooperatives in Ohio that are member-owned, locally managed, and democratically controlled utilities with roots going back to the mid-1930s. Buckeye REC is one of the oldest, continuously operated businesses in the region, but there's nothing old about our approach to service. We use cutting-edge technology to keep the lights on and our employees are dedicated and highly skilled.

Buckeye REC cannot control nature, and therefore can't guarantee an uninterrupted power supply. However, recent capital investments in our electric system have resulted in steadily declining outage numbers. If your power does go out, don't hesitate to call us. Buckeye REC is on duty 24-hours a day, 7 days a week, including holidays.

This member packet contains useful information to help you learn more about your electric provider and become efficient users of electricity.

Buckeye Rural Electric Cooperative strives to provide **dependable electric service to** our member-owners at the **most reasonable cost possible**.

Thank you for allowing us to serve you.

The Employees, Management, and Board of Trustees
of Buckeye Rural Electric Cooperative

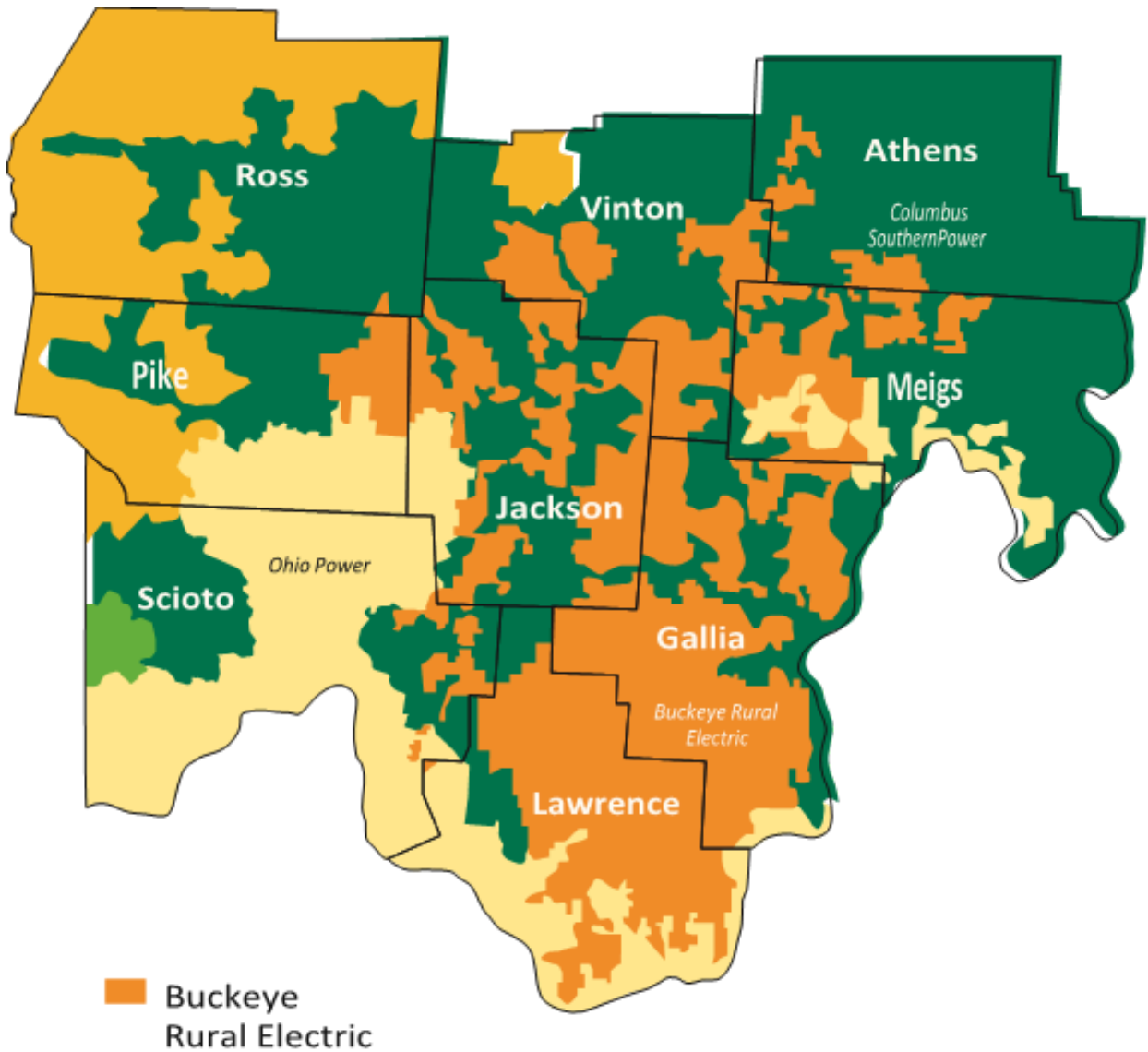


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Buckeye REC Service Territory



Buckeye REC provides service to parts of 9 counties in Ohio
(see above map highlighted in orange)

Ross, Pike, Scioto, Vinton, Jackson, Gallia, Lawrence, Athens, and Meigs



Contact Information

Office Address:

4848 State Route 325 South, Patriot, Ohio 45658

Hours of Operation:

Monday – Friday, 8:00 a.m. to 4:00 p.m.

Phone Numbers:

- Payments and billing: 800-321-2732
- Report an outage or emergency: 800-282-7204

Email Inquiries:

Contact info@buckeyerec.com

Website:

www.buckeyerec.coop





Easily Manage Your Buckeye REC Electric Account

SmartHub is Buckeye REC's free online bill management system that allows you to monitor your energy usage, pay bills, receive account notifications, and more! **If you are new to paying your bill online, you will need to create a SmartHub account.** However, it's super easy and our friendly staff will gladly assist you if you need help! Just have your account number on hand.

SmartHub Features:

- Provides 24-hour access to accounts
- Sends emails when a new bill is generated
- Pay online using credit card or electronic check
- Multiple accounts can pay with a single payment
- Displays payment posting in real-time
- Provides current and historical billing and payment history
- Allows you to enroll in paperless billing
- Outlines daily, monthly, and annual energy usage in graphs
- Includes a free app for smartphones and tablets

Sign up by:

- Visiting www.buckeyerec.coop and clicking the SmartHub tab
- Downloading the SmartHub app from the Apple app store or Android Marketplace. Both are FREE with smartphones and tablet devices!

*Your login information will be the same for the web version and mobile app.

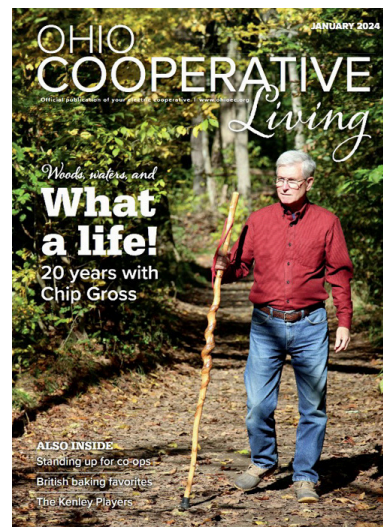
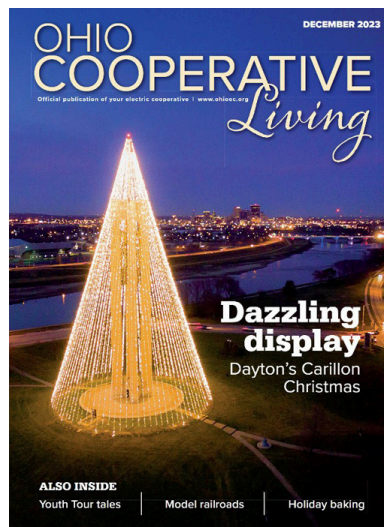
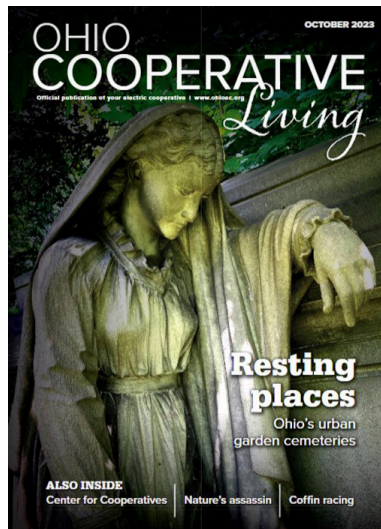
For help or more information, call us at 800-231-2732



Ohio Cooperative Living Magazine

As a member of Buckeye REC, you will receive a monthly subscription to *Ohio Cooperative Living* magazine, the statewide publication of Ohio Rural Electric Cooperatives (OREC). The magazine features interesting stories about people and places in the Buckeye State.

The center section of *Ohio Cooperative Living* contains stories and announcements specifically written for the members of Buckeye REC. The magazine is a primary means of informing you about your rural electric cooperative. We encourage you to read each monthly issue to stay abreast of the important messages published in the local section.





Cooperative Benefits

You are a member of a rural electric cooperative, a unique type of utility based on a non-profit model in which the users of power are also the local owners of the business. You and fellow co-op members meet every year at the Buckeye REC Annual Meeting to elect individuals to the Board of Trustees or vote on bylaws. The Board of Trustees sets the policies of the co-op, hires and directs the Executive Vice President/General Manager, and has fiduciary responsibility.


The Cooperative Difference

Electric cooperatives differ from municipalities and investor-owned utilities because we are not-for-profit and can return a percentage of revenue after operating expenses (margins) have been covered. These returns are called capital credits and are refunded to members in the form of a bill credit if the amount is under \$25 or a check if over \$25. The remaining funds stay in member accounts as your investment in our infrastructure and operations. Your Board of Trustees decides this amount.

Capital Credits

Capital Credits are each member's share of the margin. As a co-op member, you are paid patronage capital when there are net margins from the business operation of Buckeye REC. Capital credit totals accrue until the co-op's financial condition permits and the Board of Trustees decides to make a general retirement or actual "cash back" dollars to you.

Even if you move off co-op lines you will still receive the Capital Credits that you have earned – so it is VERY important to keep us informed of address changes so we can mail your Capital Credits to you when there is a general retirement. In the event of a member's death – Capital credits are refunded to the surviving spouse or heirs. For additional information and details, please contact Buckeye Rural Electric at 800-231-2732.





Reporting an Outage

Although we strive for always-available power, outages are possible. Knowing that you and your neighbors share a power interruption can help us pinpoint the problem. Don't hesitate to call, toll-free, at any time of night or day to report what you suspect to be a power supply problem. **Report outages by calling (800) 282-7204 or on your SmartHub app.**

Before you call, please:

- Make sure the problem is not a tripped breaker or blown fuse. If we dispatch a line crew after your outage call and it turns out the problem involves the house's electrical wiring or fuses/circuit breakers, Buckeye REC will have to charge a service fee for the false alarm.
- Check with neighbors to see if they are out of power. When reporting an outage, you should give dispatchers the name in which the electric account is listed, the location (preferably the map number on electric bill), and your telephone number.

During a widespread power outage, Buckeye REC's outage reporting system will be overwhelmed with thousands of calls. Please be patient and keep trying. Our line crews will be working diligently to restore power, starting at substations and major circuits to re-energize the most co-op members in the shortest amount of time. You might see the lights come on at homes across the road or down the street from your house, but you are still in the dark. This is because your house is fed from a different circuit, just like wiring inside your home is connected to different breakers/fuses.

To sign up for text messages to alert you of an outage at your meter, log in to your SmartHub account, go to Notifications, then click Manage Contacts. Enter your cell phone number and agree to terms and conditions.

DO NOT ATTEMPT to move downed power lines or drag trees or limbs off lines! Treat all high-voltage equipment as if it was fully energized.

Finally, keep refrigerator and freezer doors shut during a power outage.



Be Prepared for Hazardous Weather

It is rare for Buckeye REC members to experience an extended outage, but being prepared is best. No matter the season, hazardous weather can present a challenge to reliable electric service.

Here are some tips to keep prepared:

- In an outage, call 800-282-7204.
- Keep a five-day supply of drinking water in plastic bottles (one gallon per day, per person).
- Store a manual can opener and enough non-perishable food (ex: canned meats, peanut butter) for five days. Don't forget pets.
- Use paper plates, plastic utensils and pre-moistened towelettes to conserve water.
- Have a camp stove or grill for outdoor cooking.
- Keep extra batteries, matches, propane, charcoal, and firewood.
- Store a portable, battery-powered radio and alarm clock.
- Keep hand-held devices fully charged with one portable phone that will work even if power is interrupted.
- Plan where to meet and how to communicate with family, if separated.
- Keep your vehicle's tank full.
- Work with neighbors to coordinate care for elderly and disabled individuals who are living alone.
- Maintain a supply of prescription and over-the-counter drugs, vitamins, and special dietary foods.
- Keep a store of personal hygiene supplies including plastic trash bags.
- Place first-aid kits in your home and car.
- Make sure you have cold-weather clothing, blankets, and sleeping bags. Use flashlights or other battery-operated lighting instead of candles.
- Keep fire extinguishers fully charged.
- If you have a well for water, fill your bathtub with water for bathroom use before the storm.
- Check on current weather conditions.



Buckeye REC Electrical Rates

Residential

Fixed Charge – \$41/month
0-200 kWh – Flat Charge of \$11.00
201-500 kWh at .054500 per kWh
501 kWh and above at .04000 per kWh
Minimum bill \$52.00

General Service Single Phase

Fixed Charge – \$45/month
0-200 kWh – Flat Charge of \$11.00
201-500 kWh at .054500 per kWh
501 kWh and above at .04000 per kWh
Minimum Bill \$56.00

General Service Three Phase

Fixed Charge – \$63/month
Demand Charge – \$6.25/kW
(Over 300 kWh @ 3.0 cents/kWh ~ Over 300 kWh @ 2.2 cents/kWh)
** Per kW of billing demand*

Area Light – \$12 monthly fee



Understanding Your Electric Bill

Your electric bill will arrive via U.S. Postal Service every month on or around the same date. If your bill does not arrive, call us immediately. The amount you owe for electric service is still due.

The bill includes important information about your account. “Total Amount Due” and “Due Date” information appears in the top, right-hand corner. Below the bar code is a list showing the meter read dates, kilowatt-hour use, etc. A breakdown of account activity for the previous month is displayed in the bottom third of the bill.

Charges for Electric Service include the following:

- **Fixed charge** – A flat fee paid by every co-op member despite the amount of kilowatt hours used. The fixed charge helps pay costs to provide and maintain service to the meter.
- **Distribution charge** – This is the cost of constructing, operating, upgrading, and expanding the local electric distribution system, including equipment and facilities needed for meeting residential and commercial demand, and varies with kWh usage. It is the local lines you see in your neighborhood that distribute power from substations to meters.
- **Generation & transmission charge** – This portion of your bill is not controlled by Buckeye REC. This is the cost of owning, operating, and maintaining power plants and transmission lines necessary to produce and transmit energy to Buckeye REC. It also includes the cost of fuel, environmental regulations, and taxes, and represents about half of your bill. Transmission is long-distance high voltage “grid” that moves large volumes of bulk power to your local substation. Your power is produced by Buckeye Power, Inc, a generation and transmission cooperative owned by the 25 distribution electric cooperatives serving Ohio.

You might also see other charges on your electric bill, such as rent for an area light, credits for water heater load control switches, etc.

Buckeye Power: Your Source of Power

Ohio electric distribution cooperatives own and receive electricity from a generation and transmission cooperative called Buckeye Power, Inc. Early leaders had the vision that the Ohio electric cooperatives should have their own generating plants.

Through Buckeye Power, electric co-op members own units 2 and 3 at the Cardinal Station, a coal-fired power plant located about seven miles south of Steubenville. The two units came online in 1968 and 1977, respectively, and have a combined 1,230 megawatts (MW) of low-cost generating capacity. Thanks to an investment of nearly \$1 billion in environmental enhancements, the Cardinal units rank among the cleanest in the country.

Buckeye Power also owns two natural gas-fueled peaking facilities, the Robert P. Mone Plant and Greenville Generating Station, that serve Ohio cooperative members on the coldest and hottest days of the year during peak power demand periods. Combined, these plants have 710 megawatts of capacity.

Ohio's electric cooperatives' generation mix also includes:

- 55 MW of hydro power from the New York Power Authority
- 200 MW of coal-fired generation through an ownership interest and associated rights in the Ohio Valley Electric Corporation (OVEC).
- 9.6 MW from landfill methane gas at the Suburban Regional Landfill near Mt. Perry, Ohio, and the Hancock County Landfill near Findlay.
- 4.45 MW from agricultural bio-gas projects in Ohio.





Where Can I Pay My Electric Bill?

Please try to pay your bill by the due date. A 10-percent penalty is assessed on bills not received by Buckeye REC at its offices by the due date.

Remember that a “postmark” date does not qualify as the date that payment is received. Allow four to five days for a payment to reach us if paying at a Buckeye REC pay station or if sending by mail to avoid the penalty.

Here are a few ways members can pay their electric bill:

- **SmartHub** – Download the SmartHub app to start easily managing your account account. Whether on a computer, phone, or tablet, you’ll be able to pay your bill, view your usage, or contact member services. Visit www.buckeyerec.coop for more information.
- **Automated telephone system** – Call 800-231-2732 to access our interactive voice response phone system. Press Option 1 to pay with your credit card/ check or press “0” to speak with a member services representative.
- **Automatic bill payment** – After signing up for automatic payments, you will continue to receive a statement showing energy use. Payments will be drawn from the specified checking/savings or debit/credit card. The amount will vary month to month unless you sign up for budget billing.
- **Mail** – Payments can be mailed to our office or dropped off at our lobby by simply filling out the statement stub on your bill. Our office address is Buckeye REC, PO Box 200, Rio Grande, OH 45674.
- **Visit our office drive-thru window** – Bring your payment during office hours Monday through Friday from 8:00 a.m. to 4:00 p.m. Coming after hours? Just use our night deposit drop-box located at the drive through.



Where Can I Pay My Electric Bill?

Several area businesses accept Buckeye REC bill payments, including:

- **Hocking Valley Bank:**
 - All Athens locations
 - East Washington St., in Albany
 - North Plains in The Plains
- **Liberty Federal Savings Bank:**
 - 7510 County Road 107, Proctorville
 - 314 Park Ave, Ironton
- **VanillaDirect Pay** – Pay your Buckeye REC bill with cash at any of these local retailers: **Dollar General, Family Dollar, CVS, Speedway,** and
- **7-Eleven.** Visit www.vanilladirect.com to find other participating locations. Show the barcode on your paper bill or in your SmartHub account at the register. The cashier will scan the barcode and take your payment, which will be credited to your account immediately.
- **CheckFree Pay** – Using cash only, members can pay their electric bill at **Walmart, Kroger,** and other locations with CheckFree Pay, the nation’s leading provider of walk-in bill payment solutions with more than 20,000 CheckFree Pay agents across the U.S. Visit www.checkfreepay.com and select the tab to “Find a Location”. Click on “Agent Locator” and choose Option 2 to search by zip code. Enter your zip and a list of CheckFreePay’s agents near you will be displayed.

DO NOT remit payments by mail or **DO NOT** pay for delinquent bills at any pay station. Your payment may not reach our office in time to prevent cut off and collection charges.



What Types of Payment Are Accepted?

- Cash – Accepted at our office lobby or drive-through.
- Check – Accepted online, office lobby and drive through, mailed payment or through the automated telephone system.
- Credit/Debit Card – Visa, MasterCard, American Express, and Discover are accepted online and via telephone services and at our offices.

Warning: Third-Party Payment Websites

The cooperative urges members to stay away from third-party websites when making payments.

Those who pay online must carefully review what website they are using. Third-party bill payment sites advertise the cooperative name, information, and logo to get members to use their service, but are NOT affiliated in any way with Buckeye REC. They will charge you a service fee to use their site. **www.buckeyerec.coop does not charge a fee to make payments online.**

Payments made through these sites are not guaranteed – they may not arrive on time, may not be applied to the account properly, and could result in late fees or disconnections.

If paying online, use the cooperative's website link:

<https://billing.buckeyerec.com/brec/login.jsp>. If you have any questions regarding your online account, please contact our office.



Budget Billing Plans

Standard Budget billing allows you to pay a set amount every month. Once every 12 months, a “true-up” of the account occurs, based on actual use. The true-up might require you to pay for an excess amount of kilowatt hours used during the period if use exceeds your budgeted monthly total. Or, if use is less, you will receive a credit or a refund from the true-up. Applications for Budget billing may be made throughout the year and the account must have a \$0 balance to start.

Budget billing participation is based on credit rating, and the amount of the monthly bill is an estimated average from the previous 12-month period based on actual use.

Deposits, Service Fees, and Special Charges

Deposit/Account Origination Fee: A new account origination fee of \$30 per account shall be paid as well as a security deposit of \$165 or 130 percent of the annual average of monthly consumption, whichever is greater. (See Policies #411 and #440) The security deposit, when required, will be kept by Buckeye REC until such time as the member has completed 12 monthly payments with no delinquencies. Buckeye Rural Electric shall consider the status of the applicant and act according to the criteria returned from a soft credit report for the deposit amount. Based on these criteria the security deposit may also be waived.

New Service Extension Fees: The Cooperative will provide service only to the point of the service attachment at the top of the meter pole, on the side of the structure, or service mast of the structure, which will be furnished and installed by the member. See Policy #610 for terms and conditions of residential new service.



Notice to Property Owners of Buckeye REC Idle Service Policy

Once an account has been disconnected and is idle or inactive for 90 days or longer there will be a \$300 re-establishing service fee **in addition** to any unpaid balances and/or deposits, etc. Also, the service entrance must be inspected by a certified electrician after 90 days and meet all applicable code requirements before reconnection takes place.

Per Buckeye Rural Electric Cooperative, Inc. policy numbers 411 and 670, any service that remains idle beyond 90 days is subject to RETIREMENT or removal. If a service is scheduled for retirement, then Buckeye REC will remove any and all of its property installed on the premises. Once retired, all charges associated with re-establishing service would be charged to the landowner.

If you do not want the electric service removed/retired and subject to the additional \$300 re-establishing fee (after 90 days from disconnection) call Buckeye REC during normal business hours to set up an active account and pay the minimum facility charge each month.



Handling Delinquent Accounts

Bills for electric service are considered delinquent if the full amount due is not received at Buckeye REC offices on or before the due date stated on the bill. If the net amount of your bill is not paid on or before the due date posted on the bill statement, the gross amount (net with penalty added) is due. If the due date falls on a weekend or holiday, the net amount may be paid on the next regular co-op workday.

Conscientious handling of your electric account can save money in late payment penalties and fees for collection and reconnection after disconnection for non-payment. However, we realize that sometimes situations and emergencies occur.

If you are unable to pay your bill by the due date indicated on your statement **YOU MUST CONTACT OUR OFFICE PRIOR TO THE DISCONNECT DATE** and a payment arrangement may be available, depending on the circumstances. This type of delinquent account treatment must be made in Buckeye REC offices with the Member Services Department. Payment arrangements are offered at the discretion of the cooperative. Disconnection will occur if the terms of a payment arrangement are not honored.

You may request emergency assistance, if applicable, from various federal and state funded energy assistance programs available to qualified utility users. Contact your local Community Action Agency, Department of Job and Family Services, or Veterans Service Office (if you are a veteran) for more information.

Please familiarize yourself with Buckeye REC's Policy #490 for collection and disconnection of delinquent electric accounts to avoid any misunderstanding, and if you have any questions, please do not hesitate to contact us at (800) 231-2732 or (740) 379-2025 between the hours of 8:00a.m. and 4:00 p.m.

FOR BUCKEYE RURAL ELECTRIC POLICIES – Please refer to our website at www.buckeyerec.coop under the tab ABOUT select “Service Policies”.



Help Meeting Your Payments

We all need help sometimes. County Services are here.

Community Action

Gallia/Meigs Co. (740) 367-7341
Lawrence Co. (740) 532-3534
Athens Co. (740) 757-1090
Scioto Co. (740) 354-7545
Pike Co. (740) 947-2131
Jackson Co. (740) 384-3722

Job and Family

Meigs Co. (740) 992-2117
Lawrence Co. (740) 532-3324
Athens Co. (740) 797-2523
Scioto Co. (740) 353-2218
Jackson Co. (740) 286-4181
Pike Co. (740) 947-2171

Veterans Services

Jackson Co. (740) 286-3004
Gallia Co. (740) 446-2005
Lawrence Co. (740) 533-4327

Outreach Programs

Athens County Children's Services (740) 592-3061
Athens & Meigs County Salvation Army (740) 797-1305



Automated Metering for Accuracy and Convenience

PLC (Power Line Communication) technology is utilized by the AMI (Advanced Meter Infrastructure) system to measure kilowatt-hour use at your home or business. The meters send power line carrier signals back to our substations, and the data is then transmitted to co-op headquarters, where the readings are used to calculate your monthly bill. The AMIs also allow us to “ping” meters in the system to determine the extent of power outages. In addition, the meters’ report to us possible cases of tampering or power theft.

Theft of electricity is something we take seriously. Because it is extremely dangerous and costs all other co-op members, Buckeye REC prosecutes theft to the fullest extent of the law. Breaking a seal or tampering with an electric meter can result in jail time, stiff fines, or both. If you see a broken meter seal, notify Buckeye REC immediately.

Only Buckeye REC employees are permitted to remove a meter.

No member or other individuals are permitted to gain access (i.e., cutting seal, removing meter, etc.) to a meter socket (base), served by Buckeye REC under any circumstance.

If a member requests to have the power disconnected or a meter removed (pulled), they must coordinate with Buckeye REC. Only Buckeye REC employees are permitted to remove (pull) a meter. This work is only to be performed during regular work hours unless approved by a supervisor. Members should provide adequate notice for Buckeye REC to schedule. Any applicable fees will apply.

If Buckeye REC finds the seal removed and a meter that has been removed (pulled) by anyone other than an employee, the member’s account will be charged \$350 (minimum) for unauthorized meter tampering. Other additional charges may apply.



Rebates and Co-op Energy Savings Programs

Dual Fuel: The Smart Choice

Combine a high-efficiency electric heat pump with a fossil fuel (LP, propane, or natural gas) backup furnace to achieve savings and comfort year-around. Buckeye REC members can qualify for a \$600 rebate on qualifying dual fuel unit installations.

Energy Audits

Is your home weatherized and energy efficient? Buckeye REC offers advice for performing self-energy audits and recommendations for caulking, sealing, and weather-stripping your way to lower electric bills. We also provide free, on-site energy audits, conducted by trained co-op personnel, but there is a waiting list for this service and we ask that you first perform the self-energy audit to help narrow down the list of potential problems.

Peak Load Alert Program

During the hottest and coldest days of the year, demand for electricity across Ohio and the nation “peaks.” This doesn’t mean there is a shortage of power; rather baseline generation capacity has been exceeded and surplus demand is being filled at market prices. The demand costs associated with peak periods can be quite high, driving up consumer electric bills.

You can help Buckeye REC avoid setting a new peak of record by listening for peak alert warnings from Buckeye REC on your local radio and TV stations during extreme temperature periods. When a peak alert has been issued, take steps to reduce your energy use.



Members' Responsibilities

Access to Facilities – Right of access is crucial to Buckeye REC in its efforts to ensure reliable electric service. Keep the path to your service line and meter pole/pedestal unobstructed in case our linemen must reach these facilities for repair or maintenance. Remember that co-op personnel are called on to work around the clock, so don't be surprised during periods of severe weather if you see our trucks on the road night and day. Our crews need access to your property during these times and the regular work week. Buckeye REC meter technicians perform inspections of meters and check readings. Please keep animals contained for the safety of these workers.

Co-op personnel wear Buckeye REC uniforms and drive vehicles marked with the Buckeye REC logo, but please don't hesitate to ask them for identification. Call our office if you are unsure if the person you are dealing with is an employee of ours.

Right-of-Way Clearing – Buckeye REC attempts to clear a 40-ft. right-of-way (20 feet on either side) around its power lines. Any “danger trees” identified outside the 40-ft. zone will also be removed if the trees could threaten electric facilities. You can help us by not planting fast- or tall-growing trees or shrubs close to power lines and poles. Vegetation growing into lines or trees falling on lines is the major source of power outages.

Report Line Problems – Please report any conditions along power lines that need attention. When you call our office, be prepared to give details about the location and type of problem: broken or leaning poles, wires sagging too low, trees growing into the lines, broken insulators, sparks coming from lines or transformers, grass fires burning poles, children playing in a substation or underground transformer, meter tampering or theft of electricity, etc.



Check Emergency Generators

If you tie a generator into your home's wiring system, you must have a **double-pole, double-throw** switch installed between the generator and the Buckeye REC power supply. Without the switch, electricity from the generator could back-feed on the power lines and endanger linemen working to restore service during an emergency. If you have any doubt about your compliance with this safety requirement, have an electrician check your wiring or call Buckeye REC. We can tell you what's needed.

Life Support Systems

Notify Buckeye REC if you or someone in your home is dependent on an electrically powered life support unit. **We also strongly urge that anyone with life support or health monitoring equipment have a back-up power supply in case of emergencies.** No one can predict when power outages will occur or how long interruptions of service will last. Restoration efforts could take hours or days in the wake of severe storms. You are advised to have a backup power source for medical equipment or a place to go until electric service is restored.

Buckeye REC strongly urges its members to install and properly maintain smoke alarms and carbon monoxide (CO) detectors in their homes and businesses.



Safety Around High-Voltage Power

Accidentally contacting a power line can be dangerous, or even deadly, so please - **KEEP A SAFE DISTANCE – ELECTRICITY CAN TRAVEL!**

When outdoor, keep a safe distance from power lines and other equipment your co-op uses to get electricity to your home. Always remember to:

- Stay away from power lines, meters, transformers and electrical boxes.
- Never climb power poles or attach anything to the poles.
- Don't climb trees near power lines. This is work for professionals. If the vegetation grows in the right-of-way, Buckeye REC will schedule removal of the trees by its contractors. Call to notify us of these situations.
- Never fly kites, remote control airplanes or balloons near power lines.
- If you get something stuck on a power line, **call 800-231-2732** and stay away!
- Keep a safe distance from overhead power lines when working with ladders or installing objects such as antennas or rain gutters.
- Never touch or go near a downed power line.
- Don't touch anything in contact with these wires, such as a car, fence or clothesline.
- Keep children and pets away from energized lines – electricity can travel!
- If you use a generator, check our website for important safety info.

If a power line falls on your car, stay inside the vehicle. Warn away people who try to touch the car or the line. Call yourself or ask someone to **call 9-1-1, then 800-282-7204.**

The only circumstance in which you should consider leaving a car that is in contact with a downed power line is if the vehicle catches fire. If it does, open the door. **DO NOT STEP OUT OF THE CAR!** Instead, jump free of the car so that your body clears the vehicle before touching the ground. Once you clear the car, shuffle in small steps at least 50 feet away, with both feet on the ground. Do not try to help someone else from the car while you are standing on nearby ground as electricity can travel!

Preventing Electrical Accidents at Home



- If you're not a licensed electrician, never try to repair a fuse or breaker box. If you see broken or frayed wires, if certain circuits trip frequently, or if you notice any other problems, call an electrician.
- Never replace a blown fuse with a substitute and always use the correct sized fuse for replacement. A fuse that is too powerful is a fire hazard.
- If a fuse or circuit breaker frequently blows, you may have too many appliances, or appliances that are too powerful, on that circuit. Try unplugging a few items. Then, if the circuit continues to blow, call an electrician – you may have a potentially serious problem.
- Always keep water away from the control panel.
- NEVER work on the electrical system while a control panel switch is on.
- If you have a power outage, check the control panel first. If your panel uses circuit breakers, reset it (them) from off to on. If you have fuses, look for the broken metal strip in the top of the blown fuse. Then, replace the fuse with one of the correct amperages.

The outlet, or receptacle, perhaps is the most commonly used and least thought of device in the home. Follow these simple safety tips when using them:

- Check outlets regularly for problems, including overheating, loose connections, reversed polarity, and corrosion. Consider having an electrical inspection performed by a qualified, licensed electrician to help determine the integrity of your outlets and entire electrical system.
- Check for outlets that have loose-fitting plugs that can lead to arcing and fire.
- Avoid overloading outlets with too many appliances. Never plug more than one high-wattage appliance in at a time.
- Make sure there are safety covers on all unused outlets that are accessible to children. Replace any missing or broken wall plates.
- Check for any hot or discolored outlet wall plates. Look from across the room; sometimes you will see a darkened area in a teardrop shape around and above the outlet that may indicate dangerous heat buildup at the connection.
- If an outlet or switch wall plate is hot to the touch, immediately shut off the circuit and have it professionally checked.

Buckeye REC strongly urges its members to install and properly maintain smoke alarms & carbon monoxide (CO) detectors in their homes and businesses.



Energy Management

The first step to better energy management is learning how your home and habits affect your bill.

Become an Informed Consumer

Your co-op provides the same reliable electricity whether you plug in a refrigerator or a lamp. However, they use very different amounts of electricity and have dramatically different costs to operate.

Because electrical outlets don't come equipped with gauges, like cars, you must take a different approach to understanding how much energy you're using when you plug things in.

This guide is designed to provide the tools and information to give you a better understanding of how much electricity you use in your home and how your electricity use affects your bill each month.



Understanding Your Energy Use

We all know the wonderful things electricity makes possible. There's TV, radio, video games, and computers. Not to mention that electricity keeps us warm in winter, cool in summer, cooks our food, heats our water, cleans our clothes, and keeps our homes and schools bright. Electricity is always ready to make our lives a little easier.

Electricity's abundance and reliability are precisely why it's so tricky to tell how much you're using. Other types of energy require occasional reminders of how much you've consumed – your car will need a refill, or you'll empty the propane tank on your gas grill – but you never really “run out” of electricity.

However, that doesn't mean you can't measure how much you use. The information and tools provided in this book will help you become a smarter electrical consumer and make wise energy choices.

First, Waste Less

You don't need to give anything up to reduce your energy use. By simply changing a few habits you can reduce the amount of electricity you waste and take control of your energy costs. Being a smart energy consumer means you're doing the same thing you've always done – only with less energy.

This guide will introduce ways you can become Energy Wise by providing tips to make your home more efficient. This is just a start. Check with your electric cooperative to find out what assistance they can offer.

Using Your Meter

Your meter is a highly accurate tool. If used properly, it gives you the most precise picture of your electricity use. The most important thing to remember is to read it on the same day of each month. If you check your meter every 30 days, you'll be able to monitor your electricity use more accurately.

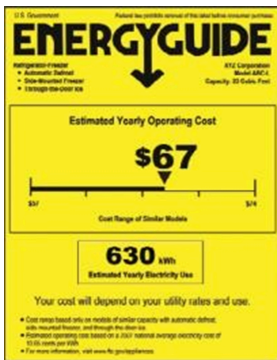


Top 10 Home Energy Tips

1. Plug electronic devices, such as cable boxes, printers, and TVs, into power strips that can easily be turned off during vacations or long periods without use.
2. Replace any light bulb, especially ones that burn more than one hour per day, with a light-emitting diode (LED) bulb.
3. During the summer, close shades and drapes during the day to help keep heat out, and during the winter, open them during the day to allow the sun to naturally warm your home.
4. Outside your home, caulk around all penetrations, including telephone, electrical, cable, gas, water spigots, dryer vents, etc.
5. Set water heater temperature no higher than 120 degrees F.
6. Use air-dry cycle instead of heat-dry cycle to dry dishes.
7. Keep your garage door down. A warmer garage in the winter and cooler garage in the summer will save energy.
8. Change HVAC filters monthly.
9. Make sure the dryer vent hose is not kinked or clogged.
10. Ensure gaskets around door seal tightly.

Determining Your Electricity Usage

Your home is unique. Factors that affect your energy use range from the number of people in your family, to the type of heating and cooling you use, to how often you entertain guests. Other factors can affect energy costs as well. Was it colder or hotter than normal? Did you finally buy that new stereo system you've been saving up for?



Energy Guide

annual operating cost for an appliance. The cost to operate an appliance should be a major consideration in your purchasing decisions; a less expensive appliance may eventually cost you more due to the accumulation of higher energy bills.



Energy Star

If you're not into crunching numbers to compare energy costs, just look for the Energy Star logo. It's a simple way to ensure you're buying an efficient product. ENERGY STAR certified products meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and Department of Energy.



Estimating Electricity Use and Cost

Appliance and equipment wattage and operating costs can vary greatly. The following formulas will show you how to determine where your electricity dollars are being spent.

Step 1

Your electric bill amount is determined by the number of kilowatt-hours (kWh) used during a billing period. The first step is to determine your average cost per kWh. Average kWh cost = \$ amount of the energy portion of your electric bill divided by kWh used. (Ex: $\$100 \div 1,000 \text{ kWh} = \$.10$ per kWh)

Step 2

Since the wattage of an appliance determines the electrical use per hour, the second step is to determine the wattage of the appliances of concern. The wattage of an appliance is found on the serial plate. Electrical load may also be expressed in volts and amps, rather than watts. If so, multiply volts X amps to determine the wattage. (Ex: $120 \text{ volts} \times 12.1 \text{ amps} = 1,452 \text{ watts}$)

Step 3

Use the formula shown in the following example to estimate use and cost. A light uses 100 watts and is left on 15 hours. How many kWh are used and what does it cost you? (Ex: kWh used = $(100 \text{ watts} \times 15 \text{ hrs}) \div 1,000 \text{ watts} = 1.5 \text{ kWh}$)

1,000 watt-hours are equal to 1 kWh - Your cost = $1.5 \text{ kWh} \times \$.10 = \$.15$

Step 4

To find your daily cost for electricity, divide your bill amount by the number of days in the month. (Ex: $\$100 \div 30 \text{ days} = \3.33 which is your daily cost)

To find the daily cost per person in your family, divide the daily cost by the number of people in your family. (Ex: $\$3.33 \div 4 \text{ people} = \$.83$ per person per day)

Electricity Use Table



| Appliance | Watts | Appliance | Watts |
|------------------------------|--------------|-------------------------------|-------|
| Kitchen | | Lights | |
| Blender | 500 | CFL Bulb - 40 Watt Equivalent | 11 |
| Can Opener | 150 | CFL Bulb-60 Watt Equivalent | 18 |
| Coffee Machine | 1,000 | CFL Bulb-75 Watt Equivalent | 20 |
| Diswasher | 1,200-1,500 | CFL Bulb-100 Watt Equivalent | 30 |
| Espresso Machine | 800 | Compact Fluorescent 20 Watt | 22 |
| Upright Freezer - 15 cu. ft. | 1,240 Wh/day | Halogen -40 Watt | 40 |
| Chest Freezer - 15 cu. ft. | 1,080 Wh/day | Incandescent 50 Watt | 50 |
| Fridge - 20 cu. ft. (AC) | 1,411 Wh/day | Incandescent 100 Watt | 100 |
| Fridge - 16 cu. ft. (AC) | 1,200 Wh/day | LED Bulb-40 Watt Equivalent | 10 |
| Garbage Disposal | 450 | LED Bulb 60 Watt | 13 |
| Electric Kettle | 1,200 | LED Bulb 75 Watt | 17 |
| Microwave | 1,000 | LED Bulb 100 Watt | 23 |
| Electric Oven | 1,200 | Heating & Cooling | |
| Toaster | 850 | Box Fan | 200 |
| Toaster Oven | 1,200 | Ceiling Fan | 120 |
| Stand Mixer | 300 | | |

Electricity Use Table



| Appliance | Watts | Appliance | Watts |
|-----------------------|-------|------------------------|-------|
| Tools | | Laundry | |
| Band Saw - 14" | 1,100 | Electric Clothes Dryer | 3,000 |
| Belt Sander - 3" | 1,000 | Gas Clothes Dryer | 1,800 |
| Chain Saw - 12" | 1,100 | Clothes Washer | 800 |
| Circular Saw - 7-1/4" | 900 | Iron | 1,200 |
| Circular Saw - 8-1/4" | 1,400 | Vacuum | 1,000 |
| Disc Sander - 9" | 1,200 | Living Room | |
| Drill - 1/4" | 250 | Blu-Ray Player | 15 |
| Drill - 1/2" | 750 | Cable Box | 35 |
| Drill - 1" | 1,000 | DVD Player | 15 |
| Hedge Trimmer | 450 | LCD TV | 150 |
| Weed Eater | 500 | Plasma TV | 200 |
| | | Satellite Dish | 25 |
| | | Stereo Receiver | 450 |
| | | Video Game Console | 150 |

Note: TVs, computers, and other devices left plugged in, but not turned on still draw power!

Electricity Use Table



| Appliance | Watts | Appliance | Watts |
|--------------------------------|--------|-----------------------------|-------|
| Miscellaneous | | Office | |
| Clock Radio | 7 | Desktop Computer (Standard) | 200 |
| Curling Iron | 150 | Desktop Computer (Gaming) | 500 |
| Dehumidifier | 280 | Laptop | 100 |
| Electric Shaver | 15 | LCD Monitor | 100 |
| Electric Blanket | 200 | Modem | 7 |
| Hair Dryer | 1,500 | Paper Shredder | 150 |
| Humidifier | 200 | Printer | 100 |
| Central A/C - 24,000 BTU | 3,800 | Router | 7 |
| Furnace Fan Blower | 800 | Smart Phone Recharge | 6 |
| Space Heater | 1,500 | Tablet Recharge | 8 |
| Sewing Machine | 100 | | |
| Electric Tankless Water Heater | 18,000 | | |
| Electric Water Heater | 4,500 | | |
| Window A/C - 10,000 BTU | 900 | | |
| Window A/C - 12,000 BTU | 3,250 | | |
| Well Pump - 1/3 1HP | 750 | | |



Monitor Your Use and Cost

The most effective way to measure your electricity use is to use your meter and keep an accurate record. Take a few minutes each day (preferably at the same time) to jot down your electric meter reading. Start the first day of the month.

By subtracting the previous day's reading from the current reading, you'll get the number of kilowatt-hours (kWh) used during that 24-hour period. By adding the daily figures into a weekly total, you can see how much – and when – your family used power during that month.

Monitoring your kilowatt-hours is a vital first step to understanding your electricity use. Understanding your electricity use is the first step to becoming more efficient at home. Please use the graph on the next page to determine your electric use.

Visit www.buckeyerec.coop for energy saving tips and use the home energy calculators to see where your energy dollars are going. Select Tool Center and choose the calculator for your specific need.

| | Daily Reading | kWh Used Daily | Record of Daily Activities That Affect Your Energy Use |
|----|----------------------|-----------------------|--|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| | Weekly Total | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |
| 13 | | | |
| 14 | | | |
| | Weekly Total | | |

| | Daily Reading | kWh Used Daily | Record of Daily Activities That Affect Your Energy Use |
|----|----------------------|-----------------------|--|
| 15 | | | |
| 16 | | | |
| 17 | | | |
| 18 | | | |
| 19 | | | |
| 20 | | | |
| 21 | | | |
| | Weekly Total | | |
| 22 | | | |
| 23 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| | Weekly Total | | |



Factors That Affect Energy Use

Season

Electric bills will typically jump in the summer due to air conditioner use. You may see similar increases in the winter if you heat with electricity. Electric bills tend to be lower in the spring and fall when temperatures are milder.

'Phantom' Load

When you turn something off, that doesn't necessarily mean it stops using electricity. Many electronics that have a standby mode draw an electric current even while they're turned off. Known as "phantom" loads, they can add up quickly. In fact, the average home wastes 42 kilowatt-hours each month due to phantom loads – that's nearly \$50 per year. Unplug all electronics that display a clock or light while turned off or use a smart power strip to limit phantom loads.

Vacation

When you're gone for a couple weeks, your electric bill should decrease significantly, right? Wrong!

Many people believe when they leave for vacation, their electric meter stops until they return. If you've ever wondered how an empty house can use so much energy, ask the follow questions:

1. **Was the water heater turned down or off during your vacation?** Remember, if the water heater is left on, it will continue to operate and maintain the tank temperature even if you're not using any hot water.
2. **Did other appliances and electronic devices run while you were on vacation?** Clocks, cell phone chargers, DVD players, heating and air conditioning equipment, computers, fax machines and TV sets may draw some "phantom" electricity. Unplug them while you're on vacation.

Vintage

Older appliances and electronic devices often draw more current than newer models. While it can be difficult to invest in new appliances or electronic devices when you've got reliable older models, the cost savings from reduced energy use can often recoup much of the cost of an upgrade.



It Starts With You

Making a habit out of any combination of the following measures can significantly reduce your electricity usage:

1. **Adjust thermostats** – Turn down your thermostat during cool months and turn it up when air conditioning. Install a programmable thermostat to accommodate your weekly schedule (i.e., don't heat an empty home).
2. **Turn down the water heater** – Although some manufactures set water heater thermostats at 140 degrees F, most households usually only require them to be set at 120 degrees F. For each 10 degrees F reduction in water temperature, you can save 3% - 5% in energy costs.
3. **Go low flow** – Install water flow restrictors and aerators on sink faucets and shower heads. These measures save money by reducing water use – and minimize the burden on your water heater.
4. **Turn off lights** – Just like mom and dad always said: leaving lights on wastes electricity.
5. **Swap for CFLs or LED** – Compact fluorescent lamps use 70% less energy and last up to 10 times longer than standard incandescent bulbs.
6. **Insulate** – You spend a lot of money and energy heating your home. Don't let it escape so easily. Use insulation with an R value of 45 or more in the ceiling and attic, and 20 or more in the walls.
7. **Replace filters** – Replacing a dirty air filter can save money by reducing the amount of electricity needed to run a blower motor.
8. **Shut them off** – Turn off electronic devices when not in use. Don't underestimate the energy savings realized by turning off or unplugging unused televisions, stereos and computers.
9. **Fill the cracks** – Seal exterior cracks and holes and ensure tight-fitting windows. Small cracks or holes in the building's exterior can really add up to substantial heating or cooling losses.
10. **Make some shade** – Sunlight streaming through windows in the summer can substantially increase air conditioning costs. Use shading methods (like window coverings, awnings, trees and bushes) wherever possible.
11. **Close the door** – Don't heat or cool the outdoors. Keep exterior doors closed as much as possible. Block and insulate unneeded windows and other openings.

For more money-saving energy efficiency ideas, visit these websites:
www.togetherwesave.com | www.buckeyerec.coop



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- (1) Mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410;
- (2) fax: (202) 690-7442, or (3) email: program.intake@usda.gov.

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