



TWIN VALLEY ELECTRIC CO-OP NEWS

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CONTACT US

1511 14,000 Road
P.O. Box 368
Altamont, KS 67330
866-784-5500
www.twinvalleyelectric.coop

A Balanced Team for Reliability

The winningest basketball teams in history are ones that are consistent and have players with varying abilities. Some are better at shooting three-pointers, some are best at defense. Having a balanced mix of skills makes the team a powerhouse on the court. The way to keep electricity reliable is a bit like that too.

The power team first requires a foundation of consistent sources that can be put in the game any time they're needed. Having enough "always available" fuel sources like natural gas and coal can ensure consistent power generation.

Just like a team needs different players for different situations, our power grid requires multiple sources to keep the grid running. Relying solely on one player to win every game is not an effective strategy — if they get injured, you'll likely lose. Similarly, using a single fuel source for electricity generation poses a significant risk to energy reliability. Natural disasters, geopolitical tensions or unforeseen disruptions can severely impact the supply chain of a particular fuel. A diverse mix of energy sources acts as a safeguard, ensuring that the grid remains operational even in the face of unexpected challenges.

A diverse energy mix also enhances grid flexibility by accommodating the intermittent nature of renewable energy sources like solar and wind. Think of solar power like a team's inconsistent three-point shooter. It's awesome when the sun is shining bright, but what if it's

nighttime or a cloudy day? That's where the other players, like wind, hydro, nuclear, natural gas and coal can step up and keep the team scoring.

Diverse fuel sources contribute to the stability and reliability of the electric grid. The different sources have varying characteristics, including generation patterns, responsiveness and storage capabilities. This diversity allows for a more balanced and resilient energy system that can adapt to fluctuating demand and unforeseen circumstances. Having a mix of these energy sources is like having a team with different skills to handle various situations and scenarios.

A diverse set of energy sources is essential, but that's not the only thing we need to have reliable electricity — or a winning team. Basketball teams are always trying out new plays or training rookies to create a versatile lineup. Similarly, electric cooperatives are constantly innovating to maintain reliability for tomorrow. But creating new ways to make our power sources more efficient and reliable takes time, money and advances in technology that aren't necessarily ready yet.

As we continue to work on the innovations of tomorrow, the key to keeping our electricity reliable right now is ensuring a diverse "team" of fuels. Each one brings something special to the table, and together, they make sure we have the power we need, whenever we need it.

As U.S. Farmers Feed the World, We Remind Them About Electrical Safety

As planting season nears, here are some agriculture-related facts from the American Farm Bureau Federation (AFBF):

- ▶ Each year, one U.S. farm feeds 166 people domestically and abroad. The global population is expected to increase by 2.2 billion by 2050. This means that the world's farmers will have to grow approximately 70% more food than what they produce today.
- ▶ Two million farms dot America's rural landscape, according to the AFBF, and 98% are operated by individuals, families and family-run partnerships or corporations.
- ▶ Eighty-six percent of U.S. agricultural products are produced on family farms or ranches.

- ▶ Americans throw away approximately 25% of the food they buy to eat at home.
- ▶ Women make up 36% of the total number of farm operators in the U.S.; 56% of all farms have at least one female decision-maker. As farmers return to their fields this spring, Safe Electricity urges all workers to be alert to the dangers of working near overhead power lines. Follow these safety tips:
 - ▶ Determine power line locations before going out into the fields and designate preplanned routes that avoid hazardous areas.
 - ▶ Be aware of increased height when loading and transporting tractors on trailer beds. Be cognizant of tall antennas.

- ▶ Avoid raising the arms of planters or cultivators or raising truck beds near power lines.
- ▶ Do not attempt to raise or move a power line to clear a path.
- ▶ Coming too close to a power line while working can be just as dangerous as contacting one since electricity can arc or "jump" to conducting material or objects.
- ▶ Non-metallic materials, such as lumber, tree limbs, tires, ropes and hay, will conduct electricity depending on dampness, dust and dirt contamination.
- ▶ When grounded wires that stabilize poles, known as guy wires, are broken, they become hazardous. If you hit a guy wire and break it, call the utility to fix it. Do not do it yourself.
- ▶ When it comes to dealing with electrical poles and wires, always call the electric utility.
- ▶ If your equipment contacts a power line, stay in the cab and call 911 or the utility for help. Warn others who may be nearby to stay away and wait until the electric utility arrives. If leaving the cab is necessary, as in the case of fire, the proper action is to jump — not step — with both feet hitting the ground at the same time. Hop away from the area as far as you can, keeping both feet together as you hop. If you are unable to hop, then shuffle with the insides of your feet touching. Don't return to the equipment until the power has been deenergized. Managers and owners should make sure family members and staff, including seasonal workers, have learned and understand these safety precautions. Dangerous areas need to be thoroughly identified and labeled. Start each day with a safety meeting to alert everyone to potential hazards and how to avoid them. For more electrical safety information, visit www.SafeElectricity.org.

Using the Clock to Save Energy

Did you know the time of day you use energy can impact electricity rates? Think of times of high energy demand like rush hour traffic. These are times when a lot of people in our community are using electricity — whether getting ready for work, which involves showering and making breakfast, or coming home in the evening to cook dinner, wash clothes, bathe the kids or wash dishes. During these times of high energy use, your electric cooperative strives to ensure there is enough electricity available to meet the needs of all consumer-members. This often results in buying energy at higher costs (because of higher overall demand) as well as ensuring that grid infrastructure can deliver enough electricity when use is highest. This is especially true when extreme winter or summer weather pushes energy use even higher.

There are several ways consumers can help lower energy demand by thoughtfully timing energy-intensive activities at home. Peak energy hours are typically in the morning and in the evening after people return from work and school. Weekends and holidays are typically considered off-peak.

Here are few simple ways you can beat the energy peak:

- ▶ Adjust the thermostat. Move the temperature up to 78 degrees in summer and down to 68 degrees in winter. Bump it further up or down when you're away from home for extended periods of time.
- ▶ Postpone the use of major appliances. Move laundry loads to later in the evening or

weekends. Delay running the dishwasher until well after dinner or use the delay cycle function if your dishwasher has one.

- ▶ Your water heater uses a significant amount of energy. You can reduce its energy burden by moving showering and bathing to an off-peak time or lowering the temperature on the tank. Some models include the ability to place the water heater on a timer to turn it off during hours it won't be in use.
- ▶ During summer, consider grilling outdoors to keep the oven off during peak heat days.
- ▶ Unplug charging cables and small appliances when they're not in use. For bigger items like TVs, try plugging them into a power strip that can be flipped on and off.
- ▶ If you have an electric vehicle, charge it at night when electricity rates are typically lowest. Check with your local electric co-op to see if they offer rates that are directly related to peak energy times and seasonality through special opt-in programs. These programs can include notification of peak hours, either through text or email. Even without these programs, lowering your energy use during peak times allows your co-op to save money on peak demand fuel costs, ultimately saving consumer-members money by keeping rates lower. Timing energy use to avoid "rush hour" is a great way to keep costs down and practice better efficiency habits. Check with your electric co-op for more information on time-of-use rates and programs.

Trees — Too Close for (YOUR) Comfort

TREES CAUSE MAJORITY OF POWER OUTAGES

Although most trees do not present a problem, some of them grow into or crowd power lines, poles or other utility equipment and cause service issues. Unruly and overgrown trees can:

- ▶ Cause outages.
- ▶ Create fire hazards.
- ▶ Break off and land on power lines.
- ▶ Cause lights to flicker during high winds.
- ▶ Get weighed down with ice and cause issues.

Proper pruning techniques are used to preserve tree health, although sometimes a tree must be removed. This is a last resort, but it can be necessary if there are:

- ▶ Fast-growing trees directly under power lines.
- ▶ Trees that are leaning into lines.
- ▶ Trees that are declining, cracked or split.

Unobstructed power lines make it easier and safer for utility crews to repair or service lines.

Power companies trim trees to better serve you!

SOURCE: WWW.SAFELECTRICITY.ORG

A Diverse Fuel Mix is a SLAM DUNK for Reliable Electricity

Just like a basketball team depends on players with different skillsets, we depend on a variety of fuels to generate the electricity that powers life 24/7. Renewable energy sources like wind and solar are key players in our fuel portfolio, but the sun doesn't always shine and the wind doesn't always blow. A diverse team of fuels ensures we have electricity whenever we need it.*

COAL 20%	NATURAL GAS 40%	WIND 10%
HYDRO 6%	NUCLEAR 18%	SOLAR 3%

SOURCE: 2022 EIA NATIONAL UTILITY DATA. *APPROXIMATELY 3% OF ELECTRICITY IS GENERATED FROM OTHER SOURCES.

Be Prepared and Stay Safe:

Storm Watches vs. Warnings

At any moment, 1,800 thunderstorms occur worldwide, according to the National Weather Service. That is 16 million storms a year! In an average year, 1,200 tornadoes cause 60 to 65 fatalities and 1,500 injuries in the U.S. alone.

To protect yourself, your family and your property from seasonal thunderstorms and tornadoes, you need more than a flashlight and a few cans of food (although they are essential parts of your emergency kit). Beyond the items in your preparedness kit, it is a good idea to fully understand how dangerous storms can be and how to interpret weather alerts to minimize risk.

WATCH VERSUS WARNING

When bad weather is approaching, people typically turn on the TV, pull up a weather app or look online for information. If you see a severe weather watch or warning, something bad could be heading your way. However, many people do not consider the differences between the two.

A WATCH means there is a significant chance of a severe thunderstorm or tornado. Watch and wait for more information while taking precautionary measures, like unplugging electronics and checking the contents of your emergency preparedness kit.

A WARNING means that a severe thunderstorm or tornado has been spotted or seen on radar. The moment you get a warning, take shelter in the safest part of your home, which is usually in your basement or the interior part of your home, away from windows.

THUNDERSTORMS

Thunderstorms are some of the most common yet destructive weather events on earth. Most of the damage comes from flooding caused by heavy rains, lightning strikes and high winds. Some

storms also deliver hail and can even spawn tornadoes. Bad weather systems, such as those that cause thunderstorms, can cause broken windows, extreme water damage, fallen trees, serious fires, downed power lines and more.

Do not ignore the potential hazards of thunderstorms. Keep flashlights or battery-operated lights well supplied with batteries or charge them regularly. Keep a supply of nonperishable food and drinking water on hand. Turn off and unplug electronic equipment to protect it from power surges. Move valuables out of the basement or other locations that may flood. However, do not step into a flooded basement or area since the water could be electrified.

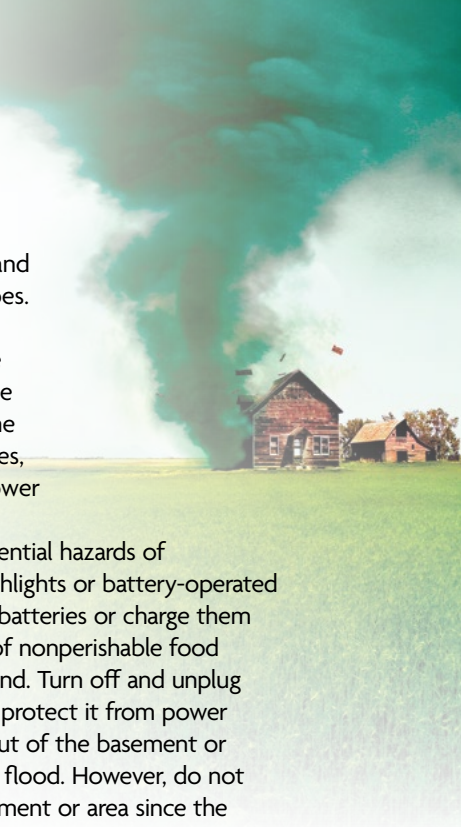
If a power outage occurs, never use a portable generator in your home, enclosed structure or garage. Keep it at least 20 feet away from the house and direct the exhaust away from any occupied space.

TORNADOES

The central part of the United States is sometimes referred to as Tornado Alley because it is the most common geographic location for these disastrous storms. The Great Plains have the perfect environment and climate for severe storm creation. While tornadoes can happen in any month, they are much likelier in the spring and summer than in other seasons. April, May and June have more than twice as many reported tornadoes as any other time of the year.

Be aware of weather conditions during thunderstorms that could breed tornadoes. Know the best place to shelter both indoors and out, and always protect your head, according to the Centers for Disease Control.

Understanding severe thunderstorm and tornado watches and warnings can help keep you and your family safe. Do not underestimate the potential power of these weather systems. Take steps to protect yourselves and your property before a storm hits.



ENERGY EFFICIENCY

Tip of the Month

Lengthen the life of your clothes dryer with regular cleaning. Clean the lint filter after every load, which improves air circulation and safety. Check the lint trap opening to ensure it's clean. Use a vacuum to remove any lint that's fallen inside the opening. If you use dryer sheets, check the lint filter for residue buildup. Remove any residue with hot water and a nylon brush or toothbrush. Over time, dryer sheets can leave a film on the filter, which can affect the performance of the motor.

SOURCE: ENERGY.GOV

