



**DS&O ELECTRIC
COOPERATIVE, INC.**

DSO
ELECTRIC COOPERATIVE

HEADLINER

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Office Hours

8 a.m.-4:30 p.m., Monday-Friday
Open over the lunch hour

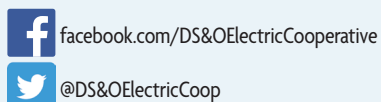
Payment Locations

**CENTRAL NATIONAL BANK IN
WALMART SUPERCENTER**
521 E. Chestnut St., Junction City, KS 66441
FARMERS STATE BANK
447 Harrison, Lindsborg, KS 67456

Outage Information

**IN CASE OF AN OUTAGE, CALL
800-376-3533.** After-hours calls will be answered by dispatch and forwarded to standby personnel.

Find Out More



On the Line BY MIKE J. OLBERDING, OPERATIONS MANAGER

This article is dedicated to all the hardworking people who bring in a valuable harvest every year. So, this should touch about everyone in the community in some way.

I would like to talk about farming around utility poles, which can be very dangerous and sometimes even fatal. Too often we hear of a farmer or grain elevator employee getting electrocuted from contacting a power line. Tractors, spray rigs, combines, headers, oversized grain wagons, grain augers, planters, etc., have all gotten bigger and taller as technology has improved. Imagine looking out the side window of a 90-foot spray boom to make sure the booms won't hit obstacles. The depth perception can especially be a challenge when trying to get the boom folded up and out of the way of power poles and power lines.

DS&O Electric averages around two public accidents a month. That's two too many. Some are vehicle accidents and the others are linked to farming in some way. Every one of these accidents causes damage to either the vehicle, the equipment or the power line. In addition to line outages caused by such accidents, there are also personal injuries or even fatalities.

My recommendation once you purchase a new piece of equipment is to give it a test run before you need to use it in the field. Have someone watching the first time to see how much clearance it has in gateways and under power lines. Make sure when you put

someone in a piece of equipment for the first time, they are well-trained and they understand all the dangers that come with operating the equipment.

In my experience with most of these accidents, it's usually a person's first time in the piece of equipment and they truly don't understand everything about it. I hope new GPS farm technology on today's tractors, combines and spray rigs will help keep these pieces of equipment away from the utility lines; however, operators still need to be aware of surroundings and the size of the equipment to ensure safety. If you have an accident involving a power line, here are a few safety tips to keep in mind:

- ▶ If the vehicle/equipment you are in contacts a power line, stay in the cab and call for help.
- ▶ If there is an imminent risk of fire, then jump clear of the vehicle/equipment and land with both feet on the ground at the same time. Do not allow any part of your body to touch the equipment and the ground at the same time.
- ▶ Do not try to get back on a piece of equipment that has a power line on it.
- ▶ Treat all electric lines and equipment as if they are energized; just because a wire is on the ground does not mean it is no longer hot.

Finally, if your farm or business has a clearance issue that you feel needs addressed, please contact the office. We want to keep our consumer-members as safe as possible.

Common Electrical Terms

Conductors, Ohms, Path to Ground and Other Buzz Words Defined

If you work with electricity for a living or you paid attention during that junior high or high school science unit that covered ohms, currents and connectivity, you will know every term listed here.

This article is for the rest of us: everyday people who scratch their heads every time they hear the word ohm (unless they are meditating and softly chanting “oohhhhhhhmmmm” as they put their index fingers on top of their thumbs and slowly pull their arms outward).

Here are some common electrical terms and their basic definitions:

PATH TO GROUND: Electricity takes the easiest path. If electricity’s usual path is interrupted, the current will take a new path. If that path is a person, electrical current will shock or kill as it runs through the body, since the body has become part of the electric circuit or pathway.

GROUND: Literally means the earth or ground in the term “path to ground” because electrical circuits can be connected to the ground. A ground wire is a wire that has been intentionally connected to the earth but does not typically carry electricity, although it can if the system detects a problem.

GROUND FAULT: This is when an electrical circuit malfunctions and finds a path to ground outside the established path. When there is a ground fault, a human in contact with the wiring may suddenly become part of the pathway to ground.

VOLTAGE: Measured in volts, voltage makes electric charges move. Industry professionals often liken electricity to an invisible fluid that moves through some materials better than others while doing its job. To expand on this analogy, voltage would be the pressure

needed to move the fluid along. No voltage (pressure), no movement of electricity (fluid).

CURRENT: Measured in amperes (amps), current is the amount of electricity that is moving through the path as pushed by voltage (pressure). Continuing with the fluid analogy, current can be thought of as flow.

CIRCUIT: This is an electrical pathway in which electricity enters and exits. Your home’s electrical system/wiring has different circuits. Several devices that don’t draw much power (a lamp or clock, for instance) can be plugged into the same circuit, while large appliances that draw a lot of power are usually placed on their own circuit.

OHM: This is a unit used to measure electrical resistance. Resistance measures how much an object (like a wire) resists the current moving through it. Another way to think of it: a water pipe with a lot of buildup would have higher resistance than a clean pipe; a small pipe would have higher resistance than a large pipe.

GFCI: This stands for ground fault circuit interrupters, and they help protect against electrical shock and electrocution as long as they are working properly. GFCIs detect whether electricity is staying inside the circuit or leaking somewhere else (like through you). It’s a good idea to test them monthly.

ARC: An arc is a discharge between two electrodes that can cause intense heat or light. Lightning is a big arc.

AFCI: This acronym stands for arc fault circuit interrupters, and they break the circuit when they sense a dangerous electrical arc. AFCIs are more sensitive to arc faults than regular circuit breakers.

STEP POTENTIAL: As its name implies, it is the potential for a person to step

from one voltage to another, which can cause electrocution. When there is stray electrical current running through the ground from a downed power line or other electrical source, it often spreads like ripples on a pond, and each ripple represents a different voltage. This happens because the electricity going into the ground is not limited to just where the wire touches. The ground resists the flow, which can cause a “pool” of electricity to form. When you step in it, you give it another path to take.

WATT: Simply put, a watt is a unit of power, named after James Watt, who invented the steam engine.

JOULE: A joule is a unit of work or energy.

CONDUCTOR: This is anything electricity can go through.

NON-CONDUCTOR: This is anything that is really bad at conducting electricity, like most plastics and rubber (although everyday rubber-soled shoes may not protect you). Non-conductors are also called insulators.

ONE LAST DEFINITION: electrical safety. At DS&O, safety is our TOP priority — your safety and the safety of our employees. Since electricity is invisible, people often forget to respect its potential for danger.

Please respect electricity. Always be aware of power line locations when working or playing outside, and always assume a downed power line is live and NEVER go near one. If you are in a car accident involving a downed line, stay in your car (unless it’s on fire) and call 911 to report the accident and the downed lines. Along with first responders, our crew will be dispatched to de-energize the lines.





A Well-Designed Landscape Can Save You Some Green

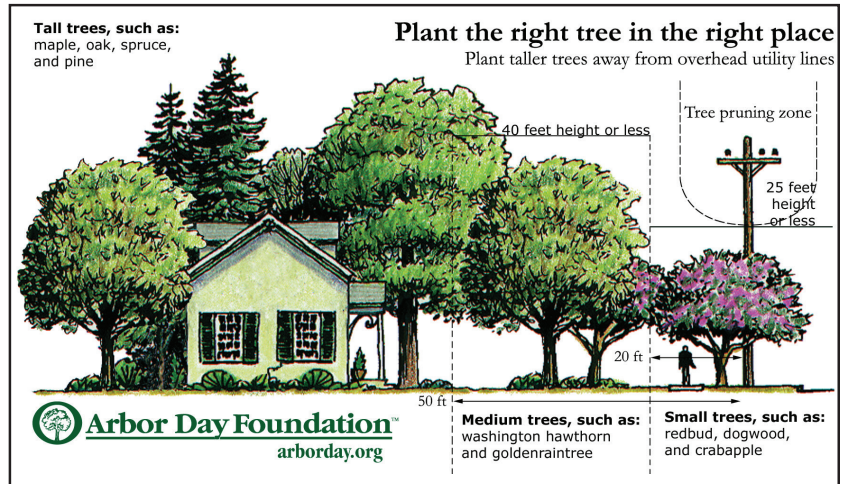
Thinking of planting trees in your yard this summer? If the answer is yes, giving some thought about where you'll plant them could help reduce your energy bill. Not only are trees beautiful, but shading is the most cost-effective way to reduce heat gain from the sun — a good thing in the summer.

And the savings are nothing to sneeze at. According to the Department of Energy, a well-planned landscape can reduce an unshaded home's air conditioning costs by 15-50%. Our nation's energy authority also boasts that on average, a well-designed landscape saves enough energy to pay for itself in less than eight years.

Although effective, shade-producing landscaping strategies vary by climate, here are some general planting guidelines from the Arbor Day Foundation:

- ▶ Plant on the west and northwest sides of your home to provide mid- to late-afternoon shade.
- ▶ Plant shade trees over patios, driveways and air-conditioning units (but never crowd or block your A/C unit; it should have a 5-foot clearance above it and 3 feet on all sides).
- ▶ Use trees to shade east and west windows. If they block your view, prune lower branches.
- ▶ In general, large, deciduous trees planted on the east, west, and northwest sides of your home create shade in the summer and can help decrease the cost of running your air conditioner in the heat of the summer.

And what is deciduous, you ask?



Deciduous trees shed their leaves annually. Although it equates to a lot of leaves to rake come October, the annual cycle lets the sunshine through in the winter but blocks the sun's rays in the summer. Either scenario helps reduce energy costs if trees are strategically placed in relation to your home.

Trees that don't shed leaves are called evergreens, which usually block the sun year-round. That's great in the summer but not so hot in the winter.

Consult a landscape professional for specific climate/region recommendations.

NOTE: When planting trees, be sure to consider height potential. Do not plant a tree that will mature to more than

15 feet tall near or under power lines. Taller-growing trees (taller than 15 feet at maturity) should be planted a minimum of 20 feet away from power lines, or much farther to avoid future pruning/power line issues.

For more information about planting the right tree in the right place or about electrical safety, go to SafeElectricity.org.

RED ZONE

WHAT IS THE RED ZONE?

The **RED ZONE** is a period when electricity costs the most.

The **RED ZONE** is 3:00PM to 6:00PM, Monday-Friday in the months of July and August (excludes July 4th).

Don't run the dishwasher

Don't do the laundry

Sign up for the Interruptible rate

You will receive a bill credit for \$25.00 for each kW saved on peak day

Set your thermostat to a higher temperature

Don't use your electric stove or oven

DSO

DS&O Electric Cooperative, Inc.

Visit our website for more information www.dsoelectric.com

FAMILY PICNIC COLORING SHEET

An outdoor picnic is a great way to spend time with your family! Cooking outdoors also helps you save energy because you don't have to use appliances that heat up your home.

