

Clearing for reliability

There are many ways that Western Illinois Electrical Coop. provides you with safe, reliable electric service. One of the most common and crucial ways is referred to as right-of-way clearing (or vegetation management).

A right of way (ROW) refers to a strip of land underneath or around power lines that your electric cooperative has the right and responsibility to maintain and clear. Trees must grow at a distance far enough from conductors where they will not cause harm to individuals or disruption to electrical service. Specifications can vary, but a general guideline of maintaining a safe ROW is 15 feet of clearance on either side of the primary conductors and 20 feet of overhead clearance above the highest wire on the pole.

To keep the lights on

Clearing the ROW is critical to keeping our members' lights on. An average of 15 percent of power interruptions occur when trees, shrubs or bushes grow too close to power lines.

To keep you safe

ROW clearing also keeps your family safe by ensuring that tree branches do not become energized due to close contact with a downed power line. WIEC power lines can carry up to 7,200 volts, and an energized tree branch is incredibly dangerous – even deadly. Be mindful when around trees close to power lines, and make sure your (10430-62) children know that climbing trees near power lines is extremely dangerous.

To keep costs lower

ROW clearing is also critical to ensuring that we provide members with affordable electricity. Staying ahead of the

game keeps us from having to come out after a storm to restore power due to fallen trees.

Remember to contact WIEC if you decide (3914-16) to trim or remove trees near any power service or line. And never trim a tree in the right-of-way zone on your own.

ROW clearing just makes sense.

If a tree encroaches on this safe distance, our vegetation management team will trim back branches and brush using chainsaws, bucket trucks, and brush chippers. Chemical control methods are used as a way to inhibit the growth of low growing plant species that grow beneath power lines.





Western Illinois
ELECTRICAL COOP.
A Touchstone Energy Cooperative

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OFFICE HOURS

8:00 a.m. - 4:30 p.m.

Monday - Friday

BUSINESS OFFICE

217-357-3125

TO REPORT AN OUTAGE

800-576-3125

BOARD OF DIRECTORS

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- **Becky Dickinson** — Office Manager

MAP LOCATION CONTEST

Every month we are printing four members' map location numbers in the newsletter. If you find your map location number call the WIEC office by the 25th of the following month, tell us where it is and we will give you a \$10.00 bill credit. Keep on reading the WIEC News.

VEGETATION MANAGEMENT

Why it Matters to You

Right of way (ROW): Refers to a strip of land underneath or around power lines that your electric cooperative maintains and clears. Trees must grow at a distance far enough from conductors where they will not cause harm to individuals, or disruption to electrical service.

15 percent of power interruptions occur when trees, shrubs or bushes grow too close to power lines. By managing vegetation, your electric cooperative keeps power safe and reliable.

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Energy Efficiency

Tip of the Month



By cleaning your air conditioner's air ducts, you can lower your energy consumption by between 5 and 15 percent.

Source: energystar.gov

Metternich wins IEC Memorial Scholarship



Sydney Metternich, daughter of Aron and Karmen Metternich, Hamilton, is one of nine winners of this year's Illinois Electric Cooperatives (IEC) Memorial Scholarship. She plans to study biology at Truman State University this fall. Sydney competed for the scholarship with total of 272 other students from across the state of Illinois.

Congratulations, Sydney!

How do transformers work?

By Tom Tate

If we were to ask you to describe WIEC's system, you might say, "Poles, wires and those round grey things/green box in my yard." Round grey things? Green box? That is often the description given for transformers, the pieces of equipment crucial in converting electricity to a voltage that is safe for use in homes and businesses. So, how do they work?

First off, transformers are nothing like those creations of the silver screen. They don't transform from vehicles to incredible combat robots. Instead, they transform the voltage of the electricity that passes through them. Time for a little (4828-16) electric system 101.

Electricity loses voltage as it is transmitted due to the resistance in wires and other components. As a result, higher voltages are used to offset these "line losses," as we call them. It all starts at the power plant. There, generators produce electricity at very high voltages and use transformers to step up this voltage. Since the power plants are far away, these voltages are necessary to survive the trip over the system to where it is needed.

Transmission lines connect to substations brimming with transformers and other control gear. Here is where the transformers step down the voltage to safer, more manageable levels. Depending upon the distance involved to the furthest member and the amount of load served, distribution voltages can range from 7,200 to 24,900 volts. A couple more step-downs and the electricity arrives at your home at 120/240 volts. This is quite different from the original voltage.

Regardless of the shape and size of the transformer, they all work in the same manner. Transformers have

two sides, a high-voltage side and a low-voltage side. In normal operation, electricity flows into the transformer on the high-voltage side, where it goes into a coil of wire usually wound around an iron core. As the electric-



ity flows through this coil, it creates a magnetic field that "induces" a voltage in the other coil. Here is where the magic (aka physics) of transformation takes place. Each coil has a different number of turns. The greater the number of turns, the higher the voltage. The coil on the high side will have



more turns than the one on the low side. As a result, the voltage induced on the low side is less. Then transformation occurs.

Transformers aren't just limited to utility use. They can be found everywhere in our daily lives, even if not so obvious as those on WIEC's system. The best example is the charger that all cell phones and many other electrical devices come with. These small cousins of utility transformers basically perform the same function. Charging your cell phone with 120 volts will fry it instantly. So, the charger converts the voltage to a more tolerable 5 volts or so. Take a moment to look around your home and see just how many of these miniature transformers you have. You might be surprised!

It is important to note that transformers work in both directions. Electricity flowing in on the low side is stepped up to the voltage of the high side. This is why WIEC urges members to have the proper connection of home generators. A generator feeding 220 volts into a residential transformer will produce whatever voltage the transformer is rated for on the other side, creating a deadly risk for our line crews and your neighbors. So please, connect your generators according to the manufacturer's recommendations. Or give us a call at 800-576-3125 for advice. It's always best to be safe.

Tom Tate writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.



Now is a great time to sign up for budget billing

Have you noticed that the price of everything changes almost daily? At the beginning of the month, it's hard to figure out how to budget your money for the month. Sign up for WIEC's Budget Billing (8515-4) and you can take away the seasonal highs and lows of your electric bill and you'll know how to budget for your electricity each month.

WIEC can average your payments for the upcoming 11 months, based

on your previous 12 months usage. The 12th payment is catch-up month, where the amount due is the actual balance remaining, or there is no payment due if there is a credit balance. This credit can be rolled over and applied to next year.

To stay on budget billing, member must keep their bills paid. Failure to do so, may result in being removed from the budget plan. To enroll, member must have their account

current and have at least 12 months of consumption history.

The deadline for enrolling in WIEC's Budget Billing is July 17.

If you are interested in receiving more information, please check out our website at www.wiec.net under the program tab. Members can also call or e-mail our office for more information.

Summer Storm Safety Tip

Strong summer storms can create dangerous situations. Always avoid downed power lines - the wire could be live, which could be deadly for those nearby. Quickly report downed power lines to your local electric cooperative.



Welcome New Members

Harold L & Lucinda J. Baughman,
Carman
Gregory A. Brueshaber, Sr.,
Lambertville, MI
Melissa Ann Cook, Niota
Rebecca Creasy, Plymouth
Jack R Darrah, Camdenton, MO

Jamie Dodds, Carthage
Gavin Handyside, Carthage
Alan L Lambert, Macomb
Derek McGlumphy, Niota
Chad Merritt, Neely, MS
Michael A Miller, Medota
Joshua Milligan, LaHarpe

Mark Pettus, Florissant, MO
Cheryl Pribble, Canton
Tina M Richardson, Parkersburg, WV
Brock A & Ciara S Yuskis, Warsaw