



Shane L. Larson,  
Chief Executive Officer

## More Power to You

# PESKY SQUIRRELS CAN SABOTAGE RELIABLE ELECTRICITY



**Advances in technology have improved the nation's electric grid over the years, making it more sophisticated to provide you with more reliable power.**

Yet despite all the progress, something hasn't changed. A bushy-tailed, beady-eyed, acorn-loving squirrel that weighs about a pound can still wreak havoc on our best efforts to keep the electrons flowing. Squirrels are the main culprit, but they're not alone. Opossums, raccoons, foxes, chipmunks, snakes, birds, and all kinds of wildlife can trigger outages. Combined, they account for about 11 percent of power outages across the nation.

Rock Energy Cooperative isn't immune to the problem. Since 2013, animals have caused 371 outages on our lines, disrupting power to 6,744 members. Earlier this spring a raccoon came into contact with energized equipment in the Newark Substation, west of Beloit, and caused 920 members to lose power. Fortunately, once the cause is determined, these types of outages are restored in fairly short order.

Your cooperative goes to great lengths to keep animals away from electricity. Squirrel guards, wire discs that are about 6 inches in diameter, keep wildlife away from our



Graphic by Welcome Traditions

overhead transformers. Vinyl sheeting is wrapped around sections of some utility poles to prevent critters from climbing to energized wires. Substations have protectors to stop birds from flying into energized areas.

You need to know a little about how electricity works to understand why some animals can come into contact with



The red equipment in this photo stops birds from flying into energized areas at the Shirland Substation.



energized wires without any consequences and other times the animal is electrocuted and knocks out power to an entire neighborhood. Electricity always flows from high voltage to areas of lower voltage using the path of least resistance.

So how can a cute little animal or a beautiful bird cause an outage? The short answer is: when the creature simultaneously comes into contact with energized power lines or equipment and another conductive object, an outage may result. By coming into contact with a line that has electricity running through it and touching another object that is capable of conducting electricity, like another wire or the ground, a voltage differential is created, resulting in a blink or outage. When this voltage variance occurs, it's not a good situation, especially for the animal.

So how does a bird on a wire not get hurt? Because the variance in two different voltage points does not exist. As long as that bird doesn't come into contact with something else while it's on the wire, it will be fine. If it flaps its wings while on the wire and its wing touches another conductive object, things aren't going to be so fine.

That explains wildlife-related outages involving overhead power lines. But animals also can cause problems on underground lines that are installed

in newer subdivisions to improve aesthetics. The power lines are buried, but a pad-mount transformer—those big, green boxes you see dotting neighborhoods—are required to reduce

inspection and maintenance. We need at least 10 feet of clearance in front of the unit and about 3 feet on the other three sides. Members can easily identify the front by looking for the warning label.

Year	Number of Outages Caused by Animals	Total Number of Members Affected	Average Outage Time (in Hours)
2016*	16	1,046	1.09
2015	128	2,039	1.17
2014	141	1,111	1.14
2013	86	2,548	1.07

*\*Through May 3, 2016*

high-voltage electricity to a lower voltage necessary to supply power to homes.

The transformer boxes are sturdy, but we need members' help to keep them operating safely and reliably. If you have one in your yard, be careful when you mow around it or use a weed whacker. If the fiberglass base is damaged, wildlife easily can crawl through holes and make nests, resulting in outages and requiring equipment repairs. Our crews inspect the equipment regularly and patch any holes they find before problems arise.

It's also important that members don't try to hide the transformer boxes with landscaping, trees, bushes, or fencing. Our workers need a clear path around the transformers for routine

## See You at the Ballpark

On a lighter note, please plan to join us on Saturday, June 18, for our 15th annual Rock Energy Family Night at the Ballpark to see the Beloit Snappers play the Wisconsin Timber Rattlers. All the details are on page 16c.

We started the annual event in 2002 as a way to bring families together for a fun summer evening. Besides seeing the minor league team play, you can get player autographs, join in some fun games between innings, eat tasty ballpark food at reduced prices, and enjoy fantastic fireworks later in the evening.

As always, I want to thank you for allowing us to be your energy provider. If we can do anything to improve our service, please let us know.



Lineman Bill Wright repairs a small hole in a pad-mount transformer on Nickolas Way in Rockton.



**Energy Efficiency  
Tip of the Month**

Avoid setting your thermostat at a colder setting than normal when you turn on your air conditioner. It will not cool your home any faster and could result in excessive cooling and unnecessary expense.

Source: [energy.gov](http://energy.gov)

Join us Saturday, June 18  
for  
**ROCK ENERGY  
FAMILY NIGHT**  
at the **BALLPARK**



**Beloit Snappers vs.  
Wisconsin Timber Rattlers**  
7 p.m.

**Pohlman Field at Telfer Park  
in Beloit**

Gates open at 6 p.m. The first 30 kids win a special gift. (*Must be accompanied by adult member.*) Come early to collect team autographs. Then stay late for a spectacular fireworks show!

Stop at either our Janesville or South Beloit offices to buy game tickets. Tickets are \$2 each (\$7 value) and good for any 2016 regular season Snappers home game.

Show your Co-op Connections Card at the ballpark on June 18 to buy reduced-price food vouchers. Get a hot dog, chips, and soda or pizza and soda for just \$2. If you don't have a card, stop at either Rock Energy location to get yours free!



## Get Connected

Check out these great deals offered with your Co-op Connections Card.



Anytime Fitness, 2240 Prairie Ave., Beloit – (608) 363-9999 – [www.anytimefitness.com](http://www.anytimefitness.com)

A 24-hour health and fitness center featuring state-of-the-art strength training equipment and cutting edge cardio, scrupulously clean workout environment, and supportive atmosphere with personal fitness orientation. **First Month Free (new members only)**

Blackhawk Propane Company, 1000 Doner Drive, South Beloit – (815) 389-3522 – [www.blackhawkpropane.com](http://www.blackhawkpropane.com)



A family-owned supplier for thousands of residential, farm, and industrial customers in the Wisconsin-Illinois state-line area. We pride ourselves on exceptional customer service, competitive prices, and offer superior equipment, such as our two-stage regulatory system. Try our convenient Keep-Full Service to ensure you never run out of propane, especially during the winter heating season, offered at no extra charge, or our money-saving pre-buy program, where you purchase a year's worth of propane fuel during the off-season. Customers are always treated like the friends and neighbors that they are to us, and 24-hour emergency service is always just a call away. **Every Sixth 20-Pound Tank Refill is Free**

For a complete listing of current deals, visit [www.rock.coop](http://www.rock.coop) and click on the Co-op Connections Card. You also can use the card for discounts on prescriptions as well as dental, vision, hearing, chiropractic, lab, and imaging services. To locate providers, call 800-800-7616.



### Add Up Your Savings!

Tell us how much you have saved by using your Co-op Connections Card. If you have a story you'd like to share, e-mail Barbara Uebelacker at [BarbU@rock.coop](mailto:BarbU@rock.coop) or call her at (866) 752-4550.

# DID YOU KNOW?

Rock Energy Cooperative has allocated \$15 million in capital credits over the years, including \$1 million in 2016.

Because energy cooperatives are cost-of-service providers, any excess revenue is allocated and returned to members and former members in the form of capital credits.



## HAVE A SAFE AND HAPPY INDEPENDENCE DAY!

Rock Energy Cooperative offices will be closed on Monday, July 4, in observance of Independence Day. We will reopen at 7:30 a.m. Tuesday, July 5. Members can make payments in the drop boxes at both offices throughout the holiday weekend. Even though our offices are closed, standby crews are always available 24 hours a day. If you need to report a power outage, please call (866) 752-4550.

### Shane Larson, CEO

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**ROCK ENERGY COOPERATIVE**  
Empowering Members Since 1936