



Spring Storms Bring Lightning:

Protect your electronics from power surges

There is little, if anything, you can buy today that does not have some electronic component. Not even our closets are sacred as wearable technology starts to take hold. So, it's time to take a look at making sure your electronics last as long as possible. Today we're talking about protecting your products from electrical surges.

The first order of business is to define a surge. Here's one from computerhope.com. "Alternatively known as a line surge, a surge is an unexpected increase in voltage in an electrical current that causes damage to electrical equipment. For example, the standard United States voltage is 120V. If an electrical current above this rating was to come through a power outlet for more than three nanoseconds, this would be considered a surge, anything less is considered a spike. A surge is usually created by lightning and can damage unprotected computers and sometimes even protected computers."

Many people think a blink from Citizens Electric's system

is a surge, but these are generally caused by something like a tree contacting a line. In such cases, the system's protective devices work, and they cause an interruption to protect the wires and other components. These are not surges, but more like turning a light on and off.

True surges can enter a home through any number of avenues. The most obvious is through power lines. Less obvious avenues are through telephone lines, cable/satellite connections, water lines and any other metallic system that connects to your home. Thus, to protect against surges, you need to take a three-pronged approach.

Perhaps the most important thing to do is to be sure all the grounds in your home are functioning correctly and that they are bonded together. Over the years, grounds can deteriorate or new services can be added with inadequate grounding. A faulty ground will allow surges into the home rather than bleeding them off into the earth. Have your grounding system tested to ensure that it is func-

tioning properly.

Next, protect your electrical service entrance with a surge device or lightning arrester. Since the majority of power surges are caused by lightning, CEC offers several different options for lightning arrestors. We will install an arrester on our transformer, and for \$63.00 we will install one on the overhead meter entrance. For underground service, we offer a \$39.00 arrester that you may have an electrician install in your electric panel. Members can have multiple lightening arrestors installed. If a member has more than one service entrance or transformer, the same cost applies for each arrester.

The third prong is to protect expensive devices at their point of use. Computers and entertainment equipment are prime examples. Remember that surges can enter the home via avenues other than the power lines. Computers and entertainment equipment are



Smart strips protect your electronics and power down devices when not in use

frequently connected to cable and phone lines. Those devices need to have protection that covers all possible avenues. These are generally in the form of a power strip or wall device most of us are familiar with. Use a quality product from a manufacturer such as Monster, Belkin, Tripp Lite, or APC, to name a few. Look for one with a joule rating of at least 1,000, a connected equipment warranty and compatibility with digital signals from cable and satellite. While you are at it, look for a "smart" strip that turns off all but one connected device when not in use.

Save money on your electric bill while protecting your equipment. It's a definite win-win.

Vote!

By the end of March, shareholders will have received a packet of annual meeting information which includes the Corporation's official meeting notice and a proxy ballot.

Exercise your right as a shareholder and vote your proxy ballot and/or attend this year's Annual Meeting of Shareholders. The meeting will be held at the Corporation's Headquarters located at 1500 Rand Avenue in Perryville on April 23, 2015, at 6:30 p.m. Doors open at 5:30 p.m. for registration. To expedite the registration process, bring with you the tear-off portion of your proxy ballot marked "ADMISSION TICKET".

Net Metering

Current federal tax incentives for renewable energy equipment make this an opportune time to "go green". But before you buy, call Citizens Electric first. Prior written approval is required to interconnect with CEC's utility system before installing any self-generation equipment (i.e., solar or wind).

CEC supports self-generation from renewable resources

and will allow members to generate their own electricity under certain guidelines and procedures outlined in Missouri's "Net Metering and Easy Connection Act." However, members must complete CEC's Application and Agreement for Interconnection and Net Metering, which is available upon request or at www.cecmo.com.

Working alongside CEC's engineering

and metering personnel will ensure that the generating system is wired correctly and the appropriate safety devices are installed. This will avoid dangerous backfeeding into the electric distribution system that could risk linemen's lives and require costly rewiring for the homeowner.

Before you buy, thoroughly research the equipment and feasibility of producing power at your location. Good resources include the Missouri Dept. of Natural

Resources, the U.S. Dept. of Energy, and the American Solar Energy Society.

Once the generation equipment is in place, CEC will install net metering at no extra charge. The amount of generation used in the home and delivered back into the power grid is tracked. Members receive a credit for the amount of electricity generated that exceeds their home's needs. For additional information, call 877.876.3511.

Save Now with PowerShift

We are three months into 2015, and many of us are feeling the pinch of those winter heating bills. However, by participating in PowerShift you could earn up to \$40 per year in CEC bill credits.

If you are not familiar with PowerShift, it is a voluntary program to conserve energy during peak times. Power is reduced from nonessential items over the Wabash Valley Power Association service areas to decrease the demand for power. It is much easier and cheaper to conserve power than it is to build new electric generation facilities.

Qualifying members could be eligible for up to \$40 in credits per year. When power reaches peak demand, this is usually during July and August, electricity is curtailed from designated central air units and/or electric water heaters. Peak demand is normally from 4-7 p.m., and power is never shed during weekends or holidays. Participants receive a monthly credit

of \$2.10 per month for central air and \$1.25 for an electric water heater. This adds up to a savings of \$40.20 per year.

If a central air unit averages 20 minutes per hour of run time during the afternoon, it will only run 10 minutes per hour on a PowerShift day. This will help to conserve energy and reduce the strain on generation facilities.

Water heaters will not receive any power during the duration of the event. The water in your tank will still be hot; however, any water added will not be heated. Activities that require a large amount of hot water should be delayed until after the event.

PowerShift works by having a switch installed that receives a signal from our power supplier, Wabash Valley Power Association. During peak times, WVPA will send a signal and power will be shed. A trained technician will install the PowerShift switch. No maintenance is required.

Over the past three years, there

has been less than 15 hours in which PowerShift has been enacted. As a matter of fact, there was no time whatsoever in which PowerShift was enacted during 2014. Those members that signed up last year received a rebate for absolutely nothing! Don't miss your opportunity to save money with PowerShift this year.

For more information, or to sign up for PowerShift, please visit cecmo.com, or call Shawn at 877-876-3511.

Eligibility Requirements

- Participants must own their home.
- Monthly usage must exceed 500 kWh.
- Multi-metered and net metered accounts are not eligible.
- Central air conditioning is eligible, but window units and geothermal systems are not.
- Systems operated with



“Smart” thermostats are not eligible.

- Only electric standard tank type water heaters that hold at least 30 gallons are eligible. Tankless, on-demand and heat pump/hybrid water heaters are not eligible.

Voluntary and Open Membership

When electric co-op members look at the seven co-op principles, many may question if they really live up to the first principle: *Voluntary & Open Membership*. It is a fair question. There is a two-part answer.

First, it is important to remember that when Citizens Electric was first being formed back in 1947, every potential member had the option to refuse service. While it may be hard to believe today, there are numerous stories from electric co-ops throughout

the country where the farmer said, “No thanks. We are doing fine with kerosene.” Of course over time, they changed their minds and eventually became members of the co-op.

Due to the incredible cost of offering electric service, the vast majority of people and businesses only have one choice if they want to connect to “the grid” and receive electricity. While that may change in the future due to rooftop solar or other generation sources, the best option for most

people for safe, reliable and affordable power is from your electric co-op.

Today, electric co-ops focus on the second part of the principle, “Open Membership.” All residents and businesses in the service territory of Citizens Electric are welcome to receive power. Co-ops continually strive to ensure that your membership has value to you not just through the service of electricity, but by being an active part of our community.

Co-ops offer and welcome your participation in the governance of the organization through a democratically elected board of directors. As a locally owned and controlled utility, co-ops are in a better position to understand the needs of its members and can be quicker to react to help ensure the membership receives the best service possible.

Members are welcome to suggest improvements to the co-op's

operations and, unlike large investor owned utilities often with millions of customers, you can be assured your ideas will actually be read by a real person in real time.

All co-ops, whether it is your credit union, farm co-op, telephone co-op or any other of the 29,000 co-ops that exist in the U.S. today, live by these seven co-op principles:

1. Voluntary and Open Membership
2. Democratic Member Control
3. Members' Economic Participation
4. Autonomy and Independence
5. Education, Training and Information
6. Cooperation among Cooperatives.
7. Concern for Community.

By using all of these principles integrated together, Citizens Electric is able to serve your needs every day.



Citizens Electric employees circa 1940