

K.C. ELECTRIC ASSOCIATION

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Our mission is to provide our members with safe, reliable service at the lowest cost, while maintaining an environmentally responsible, accountable and sustainable operation now and in the future.

ELECTRICITY DEMAND AND ENERGY

BY DAVID CHURCHWELL GENERAL MANAGER



DAVID CHURCHWELL

Most of you are familiar with energy or kilowatt-hour charges because that is how electric providers — including K.C. Electric — traditionally charge for the electricity delivered to you.

Demand charges may be less familiar. Demand is defined as the amount of energy required at a given point in time and is measured in kilowatts.

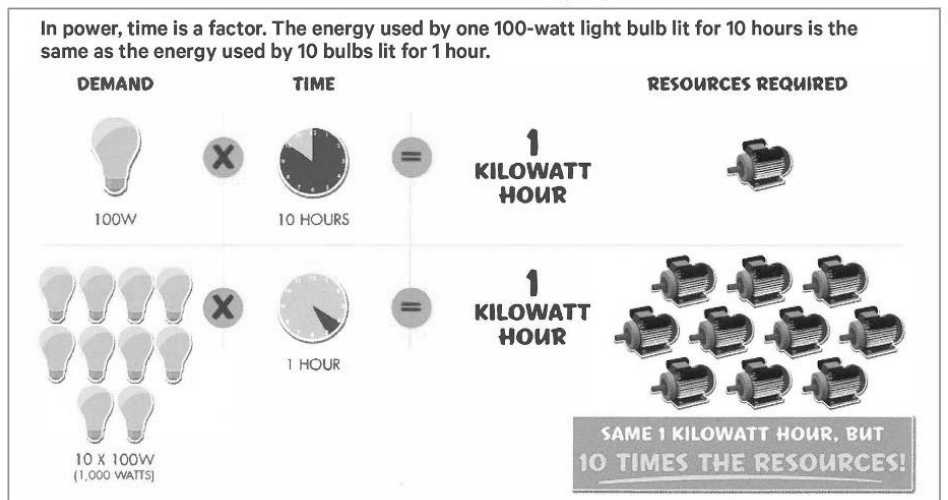
In the electric industry we refer to anything that consumes power as a “load.” Examples of loads are a lamp, a water heater, or a welder. We design your service and our electric system to safely meet the maximum demand your loads could place on our distribution system. We factor in the probability that you will not run all of your loads at one time, so we don’t add every load, but we definitely need to know what the large electric loads are in your business or home. It is important for you to call us before you add a large electric load of any kind so we can determine if your service has the capacity for the additional demand.

Demand is what drives how large transmission and distribution facilities must be to meet the maximum power required. The higher the demand, the larger the required facilities and the larger fixed costs for the electricity provider to recover in its rates.

K.C.’s power bill from wholesale power provider Tri-State Generation and Transmission includes both demand and energy charges. K.C. has 11 rate classes and currently six of these rate classes are charged both a demand charge and an energy charge. If you did not previously receive a bill with a demand reading, you may have noticed the new bill design includes a demand reading for all meters. There may be a time in the future when all K.C.’s rate classes have a demand and energy charge.

On an annual basis, our power bill is approximately 75% of our total expenses. With Tri-State’s current rate, our monthly demand charge is approximately 60% of our total bill; it’s important that we do everything possible to control our peak demand.

Here is a quick example to help explain demand. A lightbulb has a rating of the wattage it requires to work, let’s say 100 watts per hour. If that lightbulb stays on for 10 hours, it consumes 1,000 watt-hours, or 1 kWh, but demands only 100 watts. Now, if you turn on ten



100-watt lightbulbs in your home for one hour, you are still consuming the same watt-hours (or 1 kWh). However, you are placing a demand 10 times higher on our system to have those watts available to you over the course of 1 hour, instead of 10 hours. The demand on our system would be 1,000 watts or 1 kW. As more appliances in your home or on your farm run simultaneously, your demand for power increases. This requires Tri-State to generate more power in less time to meet your demand.

Why does this matter? When a big demand for power spikes in a short period of time, it strains the power generation and transmission resources. The strain that peak demand puts on the grid comes with a cost to K.C. Electric. To provide the added power needed during these periods of high demand, Tri-State must use expensive generating resources to meet the demand. In many instances, renewable resources are not available during peak periods, which often occur when it's not windy and the sun isn't

shining. When power demand spikes, so do our power costs.

Generating and distributing power can be a tricky and complicated business. K.C. Electric will always strive to meet our system peak demand while providing safe, reliable, and affordable electricity to your homes and businesses.

WHAT IS K.C. ELECTRIC DOING IN HUGO?

As you drive through the town of Hugo, you may notice new poles being set with ropes draped from top to bottom and yellow auxiliary arms supporting old wire. Many people have stopped to ask, "What are you doing?" The answer is simple: K.C. Electric began upgrading the town infrastructure to improve safety and to bring greater electricity reliability to Hugo by retiring old copper conductor and installing new aluminum conductor. By doing so, we can retire the old 2,400-volt system and upgrade to our nominal voltage of 24,900 volts.

Another question we've been asked about the project is, "How are you doing it?" There are a few steps involved: First, the existing conductor is moved out on the yellow auxiliary arms to make way for the new wire to be pulled in. Then the ropes are used to pull in the "bull rope," which is a nonconductive line that will be used to pull in the new aluminum conductor under tension. Finally, when the new aluminum conductor is installed and energized to 24.9 kilovolts, the old copper wire is retired.

We strive to keep the poles and materials for these upgrade projects out of the public's way, but sometimes that is simply unavoidable. Thank you for observing the signs and the cone zones we have set up to protect our workers and the public. If you have any questions about this process, please feel free to call 719-743-2431 — we're happy to answer your questions.



▲ K.C. Electric upgrades infrastructure in Hugo to improve safety and reliability.



▲ A K.C. Electric lineman works on replacing power line in Hugo.

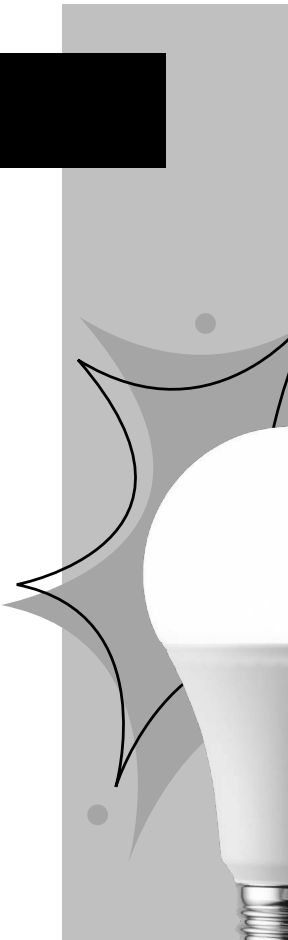


▲ Linecrews in Hugo install aluminum conductor.

ENERGY EFFICIENCY TIP OF THE MONTH

Now is the time to schedule annual maintenance for your home's heating system. During fall months, HVAC technicians are typically less busy, making this an excellent time for maintenance and any necessary repairs before the winter months.

A qualified technician can clean filters, check for leaks, and ensure all system components are working efficiently to keep your home cozy and warm when the temperatures begin to drop.



Claim Your Savings

Each month, K.C. Electric Association members have a chance to claim a \$20 credit on their next electric bill. All you need to do is find your account number, call the Hugo office at 719-743-2431, and ask for your credit. The account numbers are listed below. How simple is that?

You must claim your credit during the month in which your name appears in the magazine (check the date on the front cover).

David Mohan, Hugo – 6233xxxxx

Theo Borden, Stratton – 9430xxxxx

Dawn Morton, Hugo – 6339xxxxx

Linda Miltenberger, Bethune – 11015xxxxx

In June, two members called to claim their savings: Arthur Stevens from Flagler and Paul Witt from Flagler.

10 EASY WAYS TO \$AVE

Here are 10 habits you can tweak to save energy:

1. Use cold water to wash your clothes.
2. Unplug battery chargers when not in use.
3. Skip the heat-dry setting on your dishwasher.
4. Unplug appliances and electronics not in use.
5. Run full loads of laundry instead of several smaller ones.
6. When drying clothes, include a dry towel for the first 20 minutes.
7. Keep your refrigerator at 35° to 38°F and your freezer at 0°F.
8. Reduce the setting on your hot water heater.
9. Use smart power strips that shut off power to items not in use.
10. When buying new appliances, consider ENERGY STAR versions.



Learn more at:

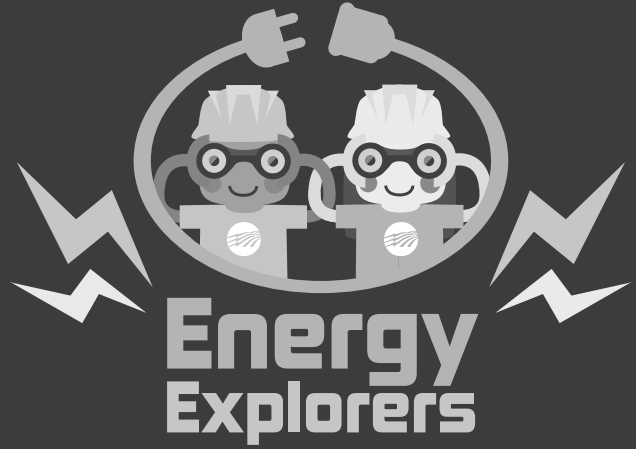
 **Safe
Electricity.org**®

PREPAREDNESS MONTH WORD SEARCH

Did you know September is National Preparedness Month? There are several ways you and your family can be prepared for an emergency.

Read the tips below, then find and circle the bolded words in the puzzle.

(Use the word bank as a guide.)



PREPAREDNESS TIPS:

Keep a list of emergency **phone numbers** in a location that's easy to find.

Learn about different types of **emergency alerts** and understand what they mean.

Make an emergency **kit** that includes items like flashlights, batteries, water, non-perishable food and a First Aid Kit.

Designate a **safe area** in your home in the event of a severe storm. This should be an area in the center of the home, away from windows.

Make sure **smoke alarms** are installed on every floor of your home and outside bedrooms. Test alarms every month to ensure they're working properly.



WORD BANK: phone numbers, emergency, alerts, kit, safe area, smoke alarms

