

K.C. ELECTRIC ASSOCIATION

OCTOBER 2020

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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.

OCTOBER IS NATIONAL CO-OP MONTH

BY DAVID CHURCHWELL
GENERAL MANAGER

When you think of October, pumpkins, Halloween and corn harvest come to mind. But October is notable for another reason: National Co-op Month. This is the time of year when cooperatives across the country, including K.C. Electric Association, celebrate who we are and, more importantly, the consumer-members we serve.

Similar to how K.C. Electric was built by members who came together to bring electricity to our community, cooperatives are conveners for the common good. Your electric co-op exists to provide safe, reliable and affordable energy to you, the consumer-members of the co-op. Equally important is our mission to enrich the lives of the consumer-members we serve.

As a co-op, we are well-suited to meet the needs of the community because we are locally governed. K.C. Electric's employees live right here in the community. Our board of directors, which helps set long-term priorities for the co-op, lives locally on co-op lines. These board members have been elected to the position by neighbors like you.

We know our consumer-members (that's you!) have a valuable perspective. That's why we are continually seeking your input. Whether through community events or the annual meeting, we want to hear from you.



DAVID CHURCHWELL

We hope you will think of K.C. Electric as more than your energy provider, but instead as a local business that supports this community and powers economic development and prosperity for the people.

Have you ever considered owning an electric vehicle or would you like to learn more about EVs? Working in conjunction with Tri-State Generation and Transmission, K.C. Electric consumer-members will have the opportunity to take a test drive in a Tesla Model 3 in October.

As a way of saying "thank you" for being a cooperative consumer-member, please stop by one of our open houses. Each open house will begin at 8 a.m. and last until 10 a.m.

Open house dates:

- Hugo will be held October 8
- Cheyenne Wells will be October 15
- Stratton will be October 22

Please plan to stop by one of our open houses for refreshments, handouts, good conversation and the opportunity to take a test ride in a Tesla EV.



Member Appreciation

As a way of saying "thank you" for being a cooperative member, please stop by one of our open houses, which will be held in October. Each open house will begin at 8 a.m. and last until 10 a.m. The date for the Hugo open house is October 8, Cheyenne Wells will be October 15 and Stratton will be October 22. **Please plan to stop by one of our open houses for refreshments, handouts, good conversation and the opportunity to take a test ride in a Tesla EV.**



Some of the operations team whose work helped K.C. earn its safety honors stand with the awards.

K.C. Electric Earns Safety Award

Colorado Rural Electric Association, the statewide organization for Colorado's electric cooperatives, annually recognizes each electric cooperative whose employees work the entire year without experiencing a lost-time accident.

There are 22 electric cooperatives in Colorado, and it's not unusual for a number of them to work an entire year without a lost-time accident. In addition to the annual no lost-time accident awards that are handed out, CREA also recognizes one electric cooperative that stands out above the rest in regard to its culture of safety by awarding the Achievement of

Excellence Performance Safety Award. For 2019, K.C. Electric received a no lost time accident award and was also selected as the recipient of the Achievement of Excellence Performance Safety Award. These awards were recently presented to the K.C. Electric employees during a monthly safety meeting.

"Safety is our cornerstone," said K.C. Electric General Manager David Churchwell. "I'm very proud of the culture of safety that has developed over the years at K.C. Electric and the professional service our employees provide on a daily basis for our membership."



October 2020 Energy Efficiency Tip of the Month

The average household owns 24 electronic products, which account for roughly 12% of home energy use. When shopping for electronics, consider purchasing Energy Star®-certified products, which can be 70% more efficient than conventional models.

Source: energystar.gov

STORM SURVIVAL

Prepare now for future storms. Assemble an emergency kit with necessary supplies to survive prolonged power outages. By staying tuned to the National Weather Service, you can better judge if inclement weather is approaching so you can take necessary steps to keep your family safe.

Claim Your Savings

Each month, consumer-members have a chance to claim a \$20 credit on their next electric bill. All you must 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).

Nick Fritzler, Flagler — 531400003 | Russel L. Short, Seibert — 812300000

Harold Eisenbart, Stratton — 906200000 | Larry D. Nestor, Cheyenne Wells — 447800002

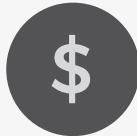
In August 2020, three consumer-members called to claim their savings: Dal Van Richie, Seibert; Kent Travis, Vona; and Alex Powell, Stratton.

HOW SMART IS A Smart Thermostat?



MYTH VS FACT

My thermostat automatically saves me money.



That depends on how it's programmed and your preferences. It still uses the same amount of energy to reach and maintain temps.

A smart thermostat is smart straight out of the box.



The thermostat needs a little time to learn your heating and cooling preferences.

My thermostat is only as smart as I am.



Sort of. Most models are independent thinkers and adjust the temperature if no one's home.

It's creepy, my smart thermostat seems to know when I'm home.



It's smart for a reason! Geotechnology syncs your thermostat with your arrival. Some models use geofencing technology that tracks your smart phone location and kicks on when you're nearby.

My smart thermostat makes me smarter.



We'll give you this one! It can help you save money and make your home more efficient.

LEARN MORE

INCREASE YOUR BRAIN POWER: FUN ENERGY FACTS

Did you know that, although Americans account for 4.25% of the world's population, we use at least 17% of the world's energy? Fossil fuel sources — coal, petroleum, natural gas — provide the most energy; they “fuel” 80% of our nation's energy consumption. Nuclear electric power accounts for approximately 8% and various types of renewable energy provide around 11%, according to the U.S. Energy Information Administration.

Most Americans own cars and getting around in them accounts for a large part of our energy use. Less than 10% of Americans use public transportation. Worldwide, more than 20% of energy consumed is used for transportation.

Here are some other energy facts:

- Heating and cooling our homes account for about half of the average utility bill.
- To help reduce your utility bill, find and fix sources of air leaks in your home and replace inefficient windows, especially those that are single-paned. Energy-saving related fixes add up to a more efficient home, thus saving on energy costs. (These are only a few ways to use less energy. Home energy audits can also shed light on sources of inefficiency.)
- Lighting accounts for approximately 10% of home utility bills. Like your dad always said, don't light an empty room. Also, put high-efficiency lightbulbs to work for you.
- The typical U.S. family spends \$2,200 or more on home utility bills each year.
- Using a smart or programmable thermostat to adjust your thermostat 10 degrees for eight hours a day could lower your heating and cooling costs by 10% per year.
- Despite previously being touted as energy saving, closing vents in unused rooms can put a strain on your heating and cooling system, which typically uses more energy, not less.

For more information on ways to save energy in your home or about a home energy audit, contact K.C. Electric at 719-743-2431.

Sources: Energy Resource Center, Energy.gov, Energy Information Administration.

THE FUTURE OF ENERGY STORAGE

BY MARIA KANEVSKY

Energy storage technology is extremely versatile — it's small enough to fit in your phone, or large enough to power your entire home.

Many people are familiar with small-scale batteries for handheld devices, but utility-scale batteries take energy storage to a whole new level. The ability to store energy helps to ensure that energy demand meets supply at any given time, making electricity available when you need it.

Forms of energy storage

The most widespread form of energy storage in the United States is through pumped hydropower, a form of mechanical energy storage. Pumped hydropower energy storage has been used for several decades, including at least two facilities in Colorado, and currently makes up about 97% of the country's utility storage capacity.

Hydropower energy is stored by pumping water uphill from a lower elevation reservoir to store in an upper water basin. When energy is needed, the water is allowed to flow through an electric turbine to generate energy, the same way it flows through a hydroelectric dam. This method is the cheapest way to store large amounts of energy, but it is largely dependent on the surrounding geography and any potential resulting ecosystem issues.

Batteries are quickly gaining attention as another form of energy storage. In 2018, the power capacity from battery storage systems in the United States more than doubled from 2010. The most common type of battery chemistry is lithium-ion because of a high-cycle efficiency and fast response time. Ninety percent of large-scale battery system capacity in the United States uses lithium-ion chemistry. Some less-common



▲ Solar and wind energy are weather-dependent, so when energy demand is low, storing the excess energy makes it possible to use it later when demand is higher. *Photo Source: Dennis Gainer*

battery types for utility storage include lead acid batteries, nickel-based batteries and sodium-based batteries. However, each chemistry has varying limitations. Beyond pumped hydropower and batteries, there are a few other forms of energy storage used at the utility scale: thermal, hydrogen and compressed air.

Incorporating renewable energy

Energy storage currently plays a crucial role in incorporating renewable energy into our electric grid. Solar and wind energy are weather-dependent, so when energy demand is low but energy supply is high from the sun or wind, storing the excess energy makes it possible to use it later when demand is higher. As renewable energy becomes more prevalent, energy storage will help to create a more resilient grid.

United Power in Brighton, one of Colorado's 22 electric cooperatives, unveiled its lithium-ion battery storage facility in

December 2018. Its 4 megawatts of Tesla lithium-ion battery packs can store and deliver 16 megawatt-hours of power, which can supply electricity for up to 700 consumer-members and their communities.

Although battery prices have been decreasing steadily over the last several years, energy storage can be expensive to attain. Currently, there are 25 gigawatts of electrical energy storage capacity in the United States, and many experts expect capacity to grow.

As technologies improve, equipment costs decrease and more renewable energy is generated, there is a great potential for utility-scale energy storage to continue expanding in the coming decades.

Maria Kanevsky is a program analyst for the National Rural Electric Cooperative Association.