

# Balancing Electricity Supply and Demand

By **Dave Churchwell** General Manager

**E**lectricity is essential for nearly every aspect of our daily life —so essential that we rarely think about how it's produced and delivered to our homes. You might be surprised to learn that behind the scenes, a network of experts is working daily, and even by the minute, to anticipate how much electricity you need before you even use it.

We're all connected to the electric grid, so ensuring the right amount of electricity for all involves a complex process of forecasting energy demand, planning for capacity, and securing enough supply to meet Americans' needs.

## POWERFUL SOURCES

First, electricity must be generated at a power plant using either traditional sources, such as coal, or natural gas, or from renewable sources, such as solar, wind, or hydropower.

At K.C. Electric, we work closely with Tri-State Generation and Transmission, our wholesale power supplier, to ensure we have enough electricity for our communities, using a diverse mix of energy sources to generate the power we deliver to your home or business.

On a larger scale, across the country, electricity supply and demand are managed through a market that includes long-term planning agreements, where



electricity is bought and sold just like other common goods and services. Because K.C. Electric works with Tri-State Generation and Transmission, which is also a cooperative, we are able to pool resources and expertise to deliver affordable power to our local communities.

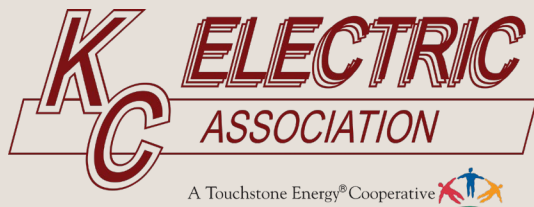
Electricity supply changes throughout the day because demand fluctuates based on consumers' needs. For example, K.C.

Electric knows that we need to ensure more electricity is available in the mornings when you're starting your day, and in the evenings when you're cooking dinner, running appliances, and watching TV. Demand also increases when weather patterns change, such as extremely warm or cold temperatures.

## MANAGING SUPPLY AND DEMAND ACROSS THE GRID

Across the country, other electric utilities are managing the same task of balancing supply and demand, which is why we have a larger network of key players in place to ensure enough power is delivered across the grid.

In most cases, the amount of electricity generated and how much is sent to specific areas are coordinated and monitored by regional transmission organizations (RTOs) and independent system operators (ISOs). In other areas, individual electric utilities perform these tasks.



### K.C. ELECTRIC MISSION

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.

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**Address**  
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Hugo, CO 80821

## YOUR CO-OP NEWS

RTOs, ISOs, and electric utilities act as air traffic controllers for the electric grid. They forecast when you, your neighbors and communities across a large region will need more power. These organizations take measured steps to ensure there's enough supply to meet demand.

### LOOKING AHEAD

As the energy sector undergoes rapid change, it's important for all consumers to understand the basics of electricity supply and demand.

Electricity use in the U.S. is expected to rise to record highs this year and next, with the demand for electricity expected to at least double by 2050. At

the same time, energy policies are pushing the early retirement of always-available fossil fueled generation sources, which could compromise reliable electricity.

K.C. Electric remains committed to providing affordable, reliable energy to the members we serve. That's why we are preparing now for increased demand and other challenges that could compromise our local electric supply.

Managing the balancing act of electricity supply and demand is a complex job, which is why we have a network of utilities, power plant operators, and energy traffic managers in place to direct the electricity we need and keep the electric grid balanced.



### ENERGY EFFICIENCY TIP OF THE MONTH

Taking steps to help your home heating system run more efficiently can reduce energy use and lower your winter bills. Check to see if any air vents around your home are blocked by furniture, curtains, or other items. Obstructed vents force your heating system to work harder than necessary and can increase pressure in the ductwork, causing cracks and leaks to form. If necessary, consider purchasing a vent extender, which can be placed over a vent to redirect air flow from underneath furniture or other obstructions.

*Source: energy.gov*



### 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).

**Mary Gonzalez, Hugo — 64189xxxx**

**Rex Ball, Kit Carson — 71815xxxx**

**Kevin Saffer, Arriba — 11111xxxx**

**Jacob Allacher, Flagler — 53070xxxx**

In November, four members called to claim their savings: John Mauch, Burlington; Renita Thelen, Hugo; Plains Bar, Hugo; and Raymond Kern, Cheyenne Wells.

### SCHOLARSHIP APPLICATIONS DUE FEBRUARY 6

Each year, K.C. Electric Association awards scholarships to students who are pursuing continuing their education. If your parents or guardians get their electricity from K.C. Electric, you are eligible to apply.

Application forms and copies of rules and procedures for scholarships are available online at [kcelectric.coop](http://kcelectric.coop). Copies are also available by calling George Ehlers at K.C. Electric at 1-800-700-3123. Applications must be received at K.C. Electric, P.O. Box 8, Hugo, CO 80821, **by February 6, 2025 at 5:30 p.m.**

#### Mail all applications to:

K.C. Electric Association, Inc.  
Attention: George Ehlers  
Manager Member Services  
P.O. Box 8  
Hugo, CO 80821

If you have questions or need an application mailed to you, please call George Ehlers at 719-743-2431.



# Attention Irrigation Accounts

If you are installing or thinking of installing a variable frequency drive irrigation motor, contact K.C. Electric Association for rebate information and for any questions you may have.

## IRRIGATION MOTOR REBATES

### 2025 Commercial and Industrial Electric Motors Incentive

- \$8 per horsepower
- Wiring assistance for electric irrigation motors that replace a fossil-fuel engine or new installation
  - \$1.50/hp

### Product & Application Requirements

- Must submit an itemized receipt
- Motors must be a minimum of 10 horsepower

### Product Guidelines

- The member system and consumer must certify that the motor is new and neither re-wound nor moved from another location.
- Per project cap of \$20,000

## VARIABLE SPEED DRIVE RETROFIT INCENTIVE

- New and retrofit application
- The incentives will be the lower of 50% of the cost of the VSD unit or project cap of \$20,000

## REFERENCE TABLE

### Motor nameplate – no incentive

#### HP Incentive

Less than 25 hp	– \$0
25 hp	– \$1,600
30 hp	– \$1,750
40 hp	– \$2,050
50 hp	– \$2,350
60 hp	– \$2,650
75 hp	– \$3,100
100 hp	– \$3,800
125 hp	– \$4,600
150 hp	– \$5,300
200 hp and larger	– \$6,800

### Product & Application Requirements

- Must submit an itemized receipt

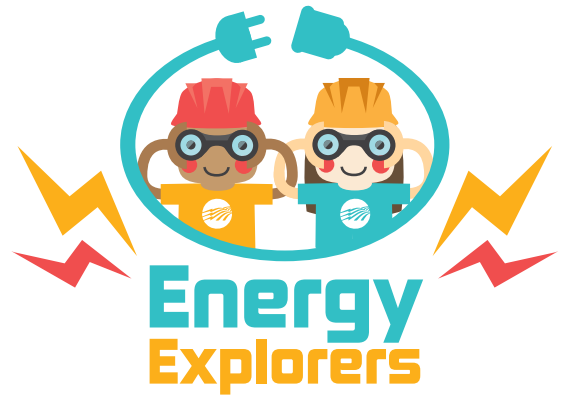
### Product Guidelines

- If a new motor is installed at the same time, it may qualify for a separate motor incentive
- Replacement of existing VSDs, for maintenance or other purposes, does not qualify
- Soft start kits added to existing motors are not eligible for this rebate
- Oil and gas VSDs or other large industrial VSDs can request to be part of the custom incentive program

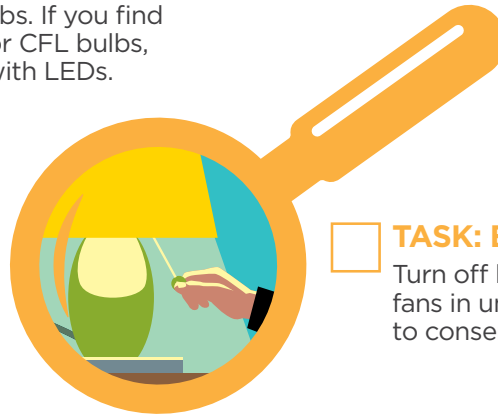


# ENERGY SAVINGS SCAVENGER HUNT

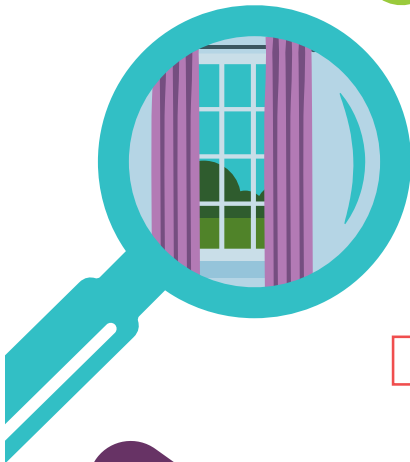
Saving energy at home is a great way to help the environment (and save money). With the help of an adult, look for ways you can save energy around your home. Use the tips below to get started, then check off the areas where you've identified ways to save!



- TASK: Bright Ideas**  
Ensure your home uses energy-saving LED bulbs. If you find incandescent or CFL bulbs, replace them with LEDs.

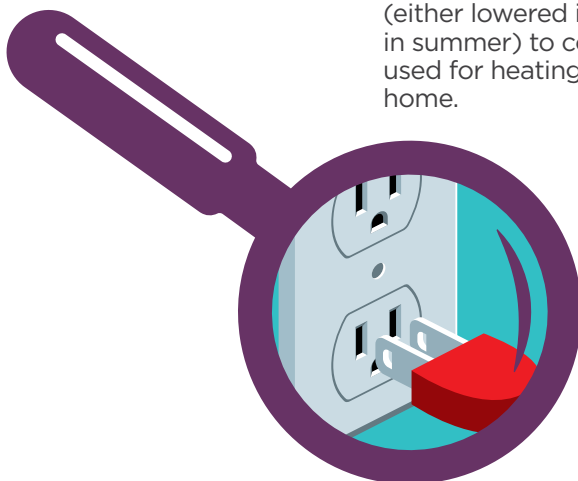


- TASK: Empty Rooms**  
Turn off lights and ceiling fans in unoccupied rooms to conserve energy.



- TASK: Sealed for Savings**  
Check windows to make sure they are closed and locked. Sealed windows help prevent air leaks, which saves energy.

- TASK: Set to Save**  
Check the thermostat to see if it can be adjusted a few degrees (either lowered in winter or raised in summer) to conserve energy used for heating or cooling your home.



- TASK: Slay Energy Vampires**  
Energy vampires are devices that consume energy even when they're not being used. Unplug these items, like phone chargers and tablets, when you're not using them.