

## What is an LED?

Light emitting diodes, or LEDs, are small light sources that are illuminated by the movement of electrons through a semiconductor material. LEDs are exceptionally energy efficient when producing individual colors, many using 90 percent less electricity than an incandescent bulb to produce the same amount of light.



## Rebates for being efficient

LED lights are offered at a rebate to member systems of Tri-State Generation and Transmission through its Energy Efficiency Credits program. Denver-based Tri-State G&T is a self-governed cooperative that provides wholesale electric power to consumer-owned utilities throughout Colorado, Wyoming, Nebraska and New Mexico. Tri-State G&T member cooperatives may or may not offer all or part of this program based on their individual business objectives. Energy Efficiency Credits are extended on an annual basis and Tri-State G&T reserves the right to discontinue the offer at the discretion of its board of directors.

Contact your local electric cooperative for more information.

## ENERGY EFFICIENCY CREDITS

# LED LIGHTING



Brighten your holidays with efficient Christmas lights

Save energy and money with LED light strings

New technologies have been developed to help consumers conserve more energy. By replacing your traditional Christmas lights with light-emitting diode (LED) lights, you can reduce your use of electricity and provide safe decorative lighting during the holidays and throughout the year.

**Use LED lighting this holiday. Consider giving the gift of festive energy savings.**

## Decorative, festive lighting

LEDs come in an array of vivid colors and unique shapes for Christmas and other holiday decorations, or to add year-around sparkle to your business or living space. The glimmering lights accent patios, porches, trees – there's no limit to the combination of LEDs and your imagination.



### Beneficial LED features include:

- ❖ 90 percent less energy use than conventional lights
- ❖ Can last up to 10 times longer than traditional incandescent strands
- ❖ Pure, intense colors
- ❖ Variety of colors, shapes and continuous ropes
- ❖ Durable plastic lens and solid-state construction
- ❖ Cool bulb surface, reducing the risk of fire
- ❖ Low maintenance
- ❖ Typically rated for outdoor use

According to the U.S. Department of Energy, if all decorative light strings sold in America this year were Energy Star-qualified, including LEDs, more than 2 billion kilowatt-hours per year could be saved. That would reduce greenhouse gas emissions equivalent to nearly 300,000 cars.

## Save your pennies for more gifts under the tree

Most Energy Star rated light strings with LEDs use less than 0.2 watts per bulb. Compare that to 0.5 watts for mini-lights (M5) and 5 to 7 watts for medium-or larger-sized bulbs (C7).

### Energy cost comparison

70 C-7 lights	\$7.56
70 mini-lights	\$0.76
70 LED lights	\$0.08 to \$0.15

*Calculations based on a residential rate of 12 cents/kilowatt-hour and lights running six hours per day for 30 days.*

## Helpful hints when choosing LED lights

Packaging typically indicates if the “white” LEDs are warm-white, pure-white or cool-white. Warm-white puts off a slightly yellow color, like a traditional incandescent bulb, which is more of the classic color. Pure-white and cool-white have more of a blue hue and provide a more intense look, which can also be described as snow-white.

