### Ameren Missouri

# Expanded LED Street and Outdoor Light Replacement Program



# What are LEDs and how are they different from the existing lights?

LED lights use light-emitting diodes to produce light very efficiently. LEDs emit light in a specific direction, unlike incandescent and compact fluorescent bulbs, which emit light and heat in all directions. For this reason, LED lighting is able to create light and use energy more efficiently in many applications.

# Why is Ameren Missouri replacing street and outdoor lights with LEDs now?

Ameren Missouri is always looking for cost-effective opportunities to help our customers save on their utility bills. Based on our 2015 analysis, replacing older technology in company-owned street and outdoor lights with LED technology is now a cost-effective option that will benefit our customers, our company, and the environment.

# What are the benefits of replacing the older model high pressure sodium lights with LEDs?

LED street and outdoor lights will save customers money. LEDs will also save energy by using 60-70 percent less energy than older technology. LEDs will increase service reliability because they are expected to last three times longer than traditional bulbs and will require little maintenance over the first 15 years.

LEDs help protect the environment by decreasing energy generation and cutting carbon emissions. Replacing approximately 140,000 company-owned street and outdoor lights with LED technology is the equivalent to taking more than 6,500 average Missouri homes off the power grid.

### How much will a lighting customer save?

Replacing older lighting technology with LEDs is expected to save most customers approximately \$1 per month (10%) per fixture for the most common bracket mount lights and \$2 per month (8%) for the most common directional lights. These reduced rates reflects both lower energy consumption and lower maintenance costs. When the LED replacement program is complete in 5 years, lighting customers will be saving nearly \$2.3 million per year compared to current non-LED rates.

## When will Ameren Missouri begin replacing older model street and outdoor lights?

Ameren Missouri began replacing company-owned bracket mount street and outdoor lights with LED fixtures beginning in April 2016. In July 2017, company-owned directional lights were included in the conversion program.

Ameren Missouri will replace approximately 140,000 company-owned street and outdoor light fixtures during this 5-year initiative. At the end of that time, a majority of company-owned lights will feature LED technology.

#### Which lights will Ameren Missouri replace?

Ameren Missouri is replacing company-owned enclosed and open-bottom street and outdoor lights and also directional floodlights with LED fixtures. These lights serve Rate 5M customers, including municipalities, neighborhoods, and individual customers.

Company-owned decorative, post-top streetlights are not part of this program because they are not a cost-effective solution at this time although a customer may request conversion of post top fixtures by paying the \$100 per fixture conversion fee indicated in the Rate 5M tariff.

### What is Ameren Missouri's plan to replace these lights?

Ameren Missouri will replace the older technology with LED lighting during a normal maintenance visit to a light. Normal maintenance includes replacing a burned out or damaged bulb.

# What will these changes look like on a monthly energy statement?

A lighting customer will receive the benefit of the LED rate from the day the light is installed. The first monthly statement after the LED is installed will reflect the installation of the new LED and removal of the old technology. There is no charge for the replacement during a routine maintenance visit. Normal monthly lighting charges will be prorated based on the number of days the LED is in service.

# Why does Ameren Missouri have to replace the entire fixture instead of replacing the high pressure sodium bulb?

LED fixtures are uniquely designed to ensure long life from the LEDs. Simply replacing older model bulbs with an LED retrofit is not cost effective because the retrofit would fail prematurely.