# **PROJECT FACT SHEET**

# **Adaptive Bi-Level Lighting**

A University of Illinois at Urbana-Champaign parking lot is one of the first test locations in the State of Illinois to feature energy efficient, motion-activated light-emitting diodes (LED). Campus Parking upgraded the lighting fixtures in Lot E15, at the corner of Fourth Street and Pennsylvania Avenue in Champaign, after receiving \$50K in funding from the Student Sustainability Committee. The motion sensors used in E15 double the light intensity when movement is detected in the parking lot. This allows the lights to consume less power, while still maintaining a minimal level of lighting at all times. The many benefits of adaptive lighting include:

- Reducing energy consumption
- Producing brighter lighting when required
- Increasing visibility of surroundings for occupants
- Activating automatically

## **COST AVOIDANCE**

The 25 LED fixtures are each estimated to last up to 100,000 hours, reducing operation and maintenance expenditures. Cost avoidance is expected to provide a payback for the initial investment within three to seven years.

## **PARKING LOT LIGHTING UPGRADES**

• B21 -- Light poles in B21 were replaced with LEDs and additional lighting was provided by adding second arm extensions to select poles.

#### **FUTURE UPGRADES**

- E14 -- All lights in Lot E14 will be replaced with LEDs. As one of the largest lots on campus, this project will provide significant longterm energy reduction and cost avoidance.
- C16 -- A full renovation, including new LEDs, of the 78-space lot located at Sherman Hall.

# SUSTAINABILITY LEADERSHIP

In 2012, the university and peer institutions from the Big Ten and Friends Environmental Stewardship Group formed the Midwest Collaboration for Adaptive Lighting (M-CAL). M-CAL's goal is to reduce energy consumption in parking lots across university campuses and help test and promote adaptive lighting techniques to surrounding communities.

## **LED COMMITMENT**

The university has become the first major research institution to commit to LED technology as its main source of lighting. Interior and exterior guide lights will be replaced by 2025, with the majority of all lighting to be LED by 2050.



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