

## CASE STUDY

# Kellogg Company – Zanesville, OH

### **Facility Type:**

Manufacturing and Food Processing Facility

### **Products:**

Highbay LED Fixtures with Occupancy Sensors, Shatterproof LED Linear Lamps

### **Savings:**

Over \$110,000/year

### **Incentive:**

More than \$44,000 in utility rebates from AEP

*“Special shatterproof lamps were used to encapsulate the office fixture linear lamps in the event of a fixture explosion, a feature designed to meet stringent USDA standards for a food manufacturing facility.”*

### **Background**

The Kellogg Company has long been committed to doing what's right for the environment and society. Over recent years they have been working on multiple fronts to further reduce greenhouse gas (GHG) emissions and waste, as well as the energy and water used throughout their worldwide operations. The company has set aggressive goals across several sustainability metrics and has consistently met or exceeded their targets, earning Kellogg numerous accolades in the field of energy conservation.

### **Situation**

The food processing facility in Zanesville, OH was experiencing challenges associated with the quality of lighting and the overall cost of electricity associated with the lighting. While flickering lamps, ballast failures and maintenance issues suggested a simple re-lamping or ballast replacement project was in order, sustainability goals and increased energy savings objectives led to a complete upgrade to energy efficient lighting technologies.

### **Solution**

The energy efficient lighting project was designed based on an engineering grade audit of the entire facility. The new design incorporated highbay LED fixtures that improved the quality of light output in the production area, reduced maintenance needs and used far less energy than the previous fixtures. Special shatterproof lamps were used to encapsulate the office fixture linear lamps in the event of a fixture explosion, a feature designed to meet stringent USDA standards for a food manufacturing facility. Occupancy sensors were also incorporated to reduce the operating hours of fixtures in non-occupied areas of the facility.

Both the design/audit and implementation phases were conducted by Eco Engineering.

### **Results**

The project is forecasted to deliver exceptional results from both an energy savings and cost perspective while improving the overall quality of lighting within the facility.

#### **Demand Reductions**

Approximately 148 kW per month

#### **Consumption Savings**

Over 100,000 kWh per month

#### **Reduced Billings**

The lighting portion of the electricity bill will be reduced by approximately 65%. Less heat produced by the new lighting technologies will further reduce electricity usage for air conditioning. Maintenance cost avoidance is also significant. Coupled with a rebate from local utility provider AEP, the project will yield more than \$1 million in savings over the next 10 years and make a sizeable contribution to overall sustainability goals at the Kellogg Company.



11815 Highway Drive, Suite 600 Cincinnati, OH 45241

Tel: 513-985-8300 • Fax: 513-985-9940

Email: [info@ecoengineering.com](mailto:info@ecoengineering.com) • [www.ecoengineering.com](http://www.ecoengineering.com)