



# Environmental Stewardship Program

## Cummins Inc. – Columbus Engine Plant

### Pollution Prevention Success Story

---

## Energy Use Reduction

### Background

Cummins Incorporated – Columbus Engine Plant (CEP) has been operating at its 1.4 million square foot facility since 1926. The facility manufactures engine blocks and heads for heavy-duty diesel engines and is building a new line for light-duty diesel engines. The plant employs approximately 800 people and has on-site contractors.

CEP implemented an environmental management system in 2006 and is among 56 Cummins manufacturing sites worldwide registered to the ISO 14001 Environmental Management System Standard. CEP has been a member of IDEM's Environmental Stewardship Program (ESP) since February 4, 2008.

In 2006, Cummins set a goal to reduce greenhouse gas intensity by 25 percent from 2005 levels by 2010 through the U.S. EPA Climate Leaders Program. As a result, the company has focused resources globally on energy efficiency and other greenhouse gas reduction efforts. CEP's own energy efficiency initiatives support Cummins' goal as well as ESP. In 2008, CEP pledged to reduce electrical usage by one million kilowatt hours per year (kWhr/Yr) as the first phase of a systematic energy efficiency program.

### Project Implementation

To accomplish the 2008 ESP goal, CEP replaced 2,178 metal halide and T-12 fluorescent lighting fixtures with 974 more efficient T-5 and T-8 fluorescent lighting fixtures in six of its buildings. Most of the new lights were equipped with occupancy sensors and daylight harvesting capability. Changes were made while working in conjunction with Duke Energy. Fewer new lights were needed because of the increased lighting output (foot candles) of the new lights. In first quarter 2010, CEP worked to complete another ESP goal, initiating a second phase lighting replacement project to save an additional two million kWhr/yr. In the first quarter 2010 "Phase II" action, CEP has replaced 1,424 metal halide fixtures with the more efficient T-5's.

### Results

Because of the increased efficiency of the new lighting system, the 2008 "Phase I" action reduced CEP electricity consumption by 2,641,017 kWhr/Yr, far exceeding the one million kWhr/Yr goal. CEP is realizing even greater energy savings because the new lights power off when spaces are unoccupied or dim when sunlight is sufficient to illuminate the area. In aggregate, the site will save 4.9 million kilowatt hours per year, reducing the equivalent of more than 3,500 metric tons of greenhouse gas.

### Cost Savings

At the end of 2010, with both phases completed, CEP will have saved \$300,000 as a result of reduced energy consumption.

### Facility Contact

Mr. Mark Slaton, Environmental Engineer  
(812) 377-8867  
[mark.j.slaton@cummins.com](mailto:mark.j.slaton@cummins.com)