



KYTC Traffic Signal Retrofit

- Statewide Traffic Signal Retrofit
- 3,000 Intersections
- 77,150 LED Modules

Major Issues

- Existing traffic signals were lit with 168 watt incandescent lamps
- LED traffic signal modules consume no more than 23 watts and last 10 times longer than incandescent
- KYTC had no database to pinpoint traffic signal intersections

Solution

- Guaranteed Energy Savings Performance Contract
- ESCO: Siemens Industry, Inc.
- \$10.4 million contract / 6 year guarantee term
- \$1.98 million of annual energy and operational savings guaranteed



Project Scope

- Audit, design, and turnkey retrofit of all state-owned or maintained traffic signals in Kentucky
- Pedestrian crossing signals
- Signal head replacement when necessary
- Traffic control
- Computerized database with GPS coordinates of each intersection
- Completed in 180 calendar days or less





Environmental Overview

Reduced Greenhouse Gas Emissions

- 25,319 metric tons per year

Equivalent Reductions

- Removing 4,639 cars from the road each year
- Preserving 179 acres of trees annually

