



# Eastern Kentucky University

- Located in Madison County, Kentucky
- Founded in 1906
- Enrollment is 15,968 students

## Major Issues

- Spending \$6.4 million on utilities in 2008
- Inefficient coal-fired steam plant
- Needed new HVAC systems for its three flagship buildings
- Outdated HVAC controls

## Solution

- Guaranteed Energy Savings Performance Contract / 2008
- ESCO: Siemens Industry, Inc.
- \$27.0 million contract / 12 year guarantee term
- \$3.16 million of annual energy and operational savings guaranteed



# Project Scope

- New PLC control system for boiler plant
- New coal stoker equipment for boiler plant
- Steam valve insulation jackets
- Non-chemical water treatment
- Facilities upgrades to many campus HVAC systems
- Digital control upgrades with graphical display
- Motors, variable frequency drives, and synchronous belts
- New lighting and occupancy sensors
- Vending machine occupancy controls
- Retro-commissioning





# Environmental Overview

## Reduced Greenhouse Gas Emissions

- 34,272 metric tons per year

## Equivalent Reductions

- Removing 6,229 cars from the road each year
- Preserving 227 acres of trees annually

