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- Outdated HVAC controls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