COLLEGES & UNIVERSITIES

ENERGY SYSTEMS GROUP
PROJECT PROFILE

John B. Shepherd Central Utility Plant

Clark Atlanta University & Spelman College – Atlanta, Georgia

Energy and
Operational Savings Over
$5.6 Million

CLARK ATLANTA UNIVERSITY

Spelman College
A Choice to Change the World

Project Background

Energy Systems Group (ESG) completed a $12 Million renovation of the John B. Shepherd Central Utility Plant located on the campus of Clark Atlanta University (CAU). The Central Utility Plant services 23 buildings at Spelman College, 14 at CAU and 14 at Morehouse College.

Energy Systems Group was selected in October of 2006 to completely renovate the Central Utility Plant to provide steam, hot water for heating and chilled water for cooling to the three Atlanta University Center (AUC) institutions for the next 15 years. ESG completed these renovations while continuing to provide steam needs to all three campuses. Having developed a cost-effective strategy that did not require additional space, ESG completed all renovations and equipment installations within the plant's existing structural footprint.

The state of the art central plant now provides maximum reliability and highest efficiency performance. Key facility upgrades include the installation of a 1300-ton chiller that enables the plant to provide chilled water for air conditioning of many buildings for the first time. In addition, ESG installed two new high efficiency boilers fueled by either natural gas or propane and one high efficiency boiler powered by electricity.

Environmental Benefits:

The removal of 3 old boilers and replacing them with 2 new gas boilers, 1 electrode boiler and a 1300-ton chiller results in annual savings of 15,100,000 kwh of electricity which is equivalent to the following environmental benefits:

- CO_2 Reduction Equivalent to Removing 2,121 Cars from the Road Annually; or
- Consumption Savings Equivalent to Creating Enough Energy to Power 1,037 Homes Annually; or
- CO_2 Reduction Equivalent to Planting 2,670 Acres of Pine Forest Annually

Water Piping Distribution

Energy Systems Group engineered, designed and installed over three miles of new underground piping as another major step towards providing reliable and efficient steam and chilled water throughout the campus. The first phase of the piping distribution connected the renovated Central Utility Plant to five major buildings on the main campus. Two more buildings are were added in the Spring of 2009, with future connection capacity of eight more buildings. ESG completed the piping distribution work throughout the entire CAU campus with minimal disruption to students and classes.

ESG ENERGY SYSTEMS GROUP

ESG is an award-winning energy services company that provides its customers with innovative energy efficiency, technology, and long-term financing solutions for modernization of their facilities and energy infrastructure.

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