Utilities & Energy Services

Leading into the future

- World Class Customer Service
- Energy Action Plan 2015
- Texas A&M System-wide Energy Management Program - serving all A&M System campuses
- New UES Capital Plan approved beginning September 1, 2012
- Organizational development to support expanded services

UES Master Plan Update
Completed January 2012
- Identified specific utility production capital improvements needed to most reliably and efficiently serve growing campus through FY17
- Defined utility infrastructure and funding requirements
- Utility production and distribution system optimization
- Building automation system and HVAC optimization standards
- High-efficiency design standards for new buildings and major renovations
- Comprehensive analysis for energy consumption, financial, and environmental impact
- Opportunities to leverage academic and research collaboration and partnering

Texas A&M System-wide Energy Management Program (EMP)
- Develop energy consumption and cost baseline for each campus
- Identify existing capabilities and opportunities for improvement
- Identify and quantify opportunities for energy and cost savings
- Implement ‘low hanging’ energy consumption reduction opportunities
- Identify and assist with organizational, operational and efficiency improvements
- Establish and manage ongoing program to ensure responsiveness, proactivity, and continuous improvement

How Does Texas A&M University Effectively Manage Utilities and Energy?
The Utilities & Energy Services (UES) Department produces, delivers, and manages utilities and energy serving close to 24 million GSF on the Texas A&M University campus. UES determines purchased energy requirements, manages extensive utility production and delivery systems for electricity, cooling, heating, water, and other services, manages automation systems to reliably and efficiently regulate building environmental conditions, meters and recovers all cost for utilities and energy services, while ensuring customer needs are effectively met. Other services provided include solid waste and recycling management, domestic water production and delivery, and operation of two wastewater treatment facilities.

How Have Utilities and Energy Services Been Improved?
- $200 million invested in utility infrastructure since 2002 to upgrade capacity, reliability and efficiency of services provided
- 40 percent reduction in energy consumption per gross square foot over the last ten years (FY02 to FY12), resulting in $140 million in savings
- Measurable improvement in safety, reliability, efficiency and customer service
- Expanded role by UES for building HVAC system operation and management
- Major HVAC and lighting efficiency upgrades in campus buildings
- Improved operation and management of utility and energy infrastructure

Utility Infrastructure Expansion and Upgrade – Since 2002
- Connected additional 4+ million GSF of facilities into campus utility infrastructure
- Major upgrades in all four campus utility plants and distribution systems
- Upgraded on-site Combined Heat and Power (CHP) generation to 50 MW in 2011
- Installed 11 high-efficiency chillers and 16 high-efficiency boilers in utility plants
- 2,000 revenue-quality utility meters installed in 500 buildings and four plants
- Utility plant monitoring, control, and optimization upgrade
- Electrical generation, distribution, and monitoring upgrade
- Extensive cooling tower, pumping, and auxiliary system upgrades
- Significant improvement in capacity, safety, reliability, and efficiency of utility plant and building utility/energy systems

Reduced Consumption and Cost – Since 2002
- 25% reduction in energy consumption with 25% increase in campus GSF
- 25% reduction in domestic water consumption
- 40% reduction in Green House Gas (GHG) emissions
- $140 million in energy cost avoidance reinvested in upgraded infrastructure
- Over 60% of solid waste from campus diverted from landfill to recycled material

Energy Action Plan (EAP) 2015
- Energy Stewardship Program (ESP) reduces energy consumption and improves customer service through education, engagement, and increased awareness
- Comprehensive Building Automation and HVAC System Management
- Precise Utility Metering, Data Management and Cost Recovery
- Building Energy System Retro-Commissioning
- Server Room Consolidation and Virtualization
- Utility Production and Distribution Optimization
- Academic and Research Collaboration and Partnering
- Building Energy Efficiency Upgrades and Optimization
- Environmental Benefit (Sustainability) and GHG Reduction
- Collaboration through EAP 2015 Advisory Committee

Improved Building Automation and Control
- 125 buildings on Siemens building automation system – one of the largest and most sophisticated building monitoring and control systems in the world
- $15 million HVAC control and lighting upgrade in 23 facilities completed in 2012 – improved conditions with additional $1.5 million annual cost avoidance
- Precise control of environmentally sensitive areas such as BSL3 research labs
- UES assumed additional responsibility in 2011 for comprehensive management of all building automation and environmental control – resulting in improved safety, comfort, efficiency and customer service

To learn more, contact UES at 979.845.1210 or visit http://utilities.tamu.edu

Operational Excellence
World Class Service