Baylor University



QUICK STATS

LOCATION | Waco, TX

ENROLLMENT 17,000

full and part time

CAMPUS

7,377, 390 GSF 125 Buildings

PARTNER SINCE

2001

SERVICES

Utility Management

Utility Master Planning

Building

Commissioning

Plant Operations

Maintenance

Grounds and Landscaping

Results

- Utility Management Program initiated in 2001 extended through 2024
- \$1.35M Annual Energy Savings Guarantee
- Implemented supply and demand savings opportunities
- Exceeded energy savings guarantee in first three years by 67%
- Cost Savings from 2014-2018: \$8.9 million + \$4M/Year in procurement
- Savings percent to date: Energy 14.2%; Water 16.9%



BAYLOR UNIVERSITY SAVES ENERGY BY ENGAGING THE CAMPUS COMMUNITY AND IMPROVING OPERATIONAL EFFICIENCIES

ALIGNING WITH THE CLIENT GOALS

In order to help support the cost of a \$40 million campus infrastructure expansion, Baylor engaged Aramark's utility management services in 2001. Aramark executed energy supply and demand-side operations initiatives to deliver substantial savings to the University. An award winning Energy Awareness Program was introduced to foster and promote student engagement in the overall reduction of both energy and greenhouse gas emissions. As one component of the Integrated Facility Management model on campus, Aramark's energy program includes a \$1.35 million guarantee in annual energy savings. Aramark-generated savings meet the annual guarantee 4 months ahead of schedule and then exceed the guaranteed savings by over \$600K each and every year. Aramark's dedicated site-based energy management team of four implements this comprehensive utility management program, with regional part-time senior level energy support.

PROGRAM HIGHLIGHTS

The comprehensive utility management program capitalizes on the entire realm of both energy supply and demand opportunities by using proven methods to capture true savings through energy projects and improved operations and maintenance. Some examples of the implemented strategies are:

- Competitive electricity procurement.
- Providing a focused concentration on the accuracy of energy data, energy
 procurement, efficient energy distribution systems throughout Baylor's facilities,
 improved operations, and a commitment from the campus community to promote
 a culture that supports energy conservation.

"Aramark brought a level of expertise and innovation to their energy program and facility operations that were not originally in place. They have developed their staff and delivered performance beyond our initial expectations. We recognize the value of our partnership with Aramark as they continue to support Baylor's energy efficiency initiatives."

Don Bagby
Director of Facilities Management, Baylor University

Baylor University



BAYLOR ENERGY MADNESS
RESIDENCE HALL COMPETITION - 2018

OUTREACH, AWARENESS, AND TRAINING INITIATIVES FOR STUDENTS, STAFF AND FACULTY

PROGRAM HIGHLIGHTS (CONTINUED)

- · Integrated chiller plant optimization system with existing building control system.
- · Developed operating protocols with a focus on chiller, boiler and gas turbine optimization.
- Installed premium efficiency chiller and boilers.
- Implemented building retro-commissioning program to fine tune HVAC equipment.
- Upgraded lighting to LED at 4 parking garages and over 700 pole lights to improve security and energy efficiency.
- Achieved LEED certification of an existing building
- Implemented a comprehensive water management program through the utilization of state-of-the-art technology.
- Award winning energy awareness program, including Baylor Energy Madness Residence Hall Competition.
- Mechanical equipment scheduling and holiday curtailment protocols.
- · Building Management System optimization through system trending and software programming revisions.

Energy Planning & Procurement

Aramark introduced our partner Amerex to ensure that Baylor secured the best electric pricing available at the risk tolerances which Baylor deemed acceptable. These discussions resulted in Amerex brokering a 10 year, fixed-rate electricity contract for Baylor University. Amerex is one of North America's largest over-the-counter brokers of wholesale energy commodities. This long-term procurement contract was one of the largest and most cost saving programs of its time.

Facility Operational Services

When Aramark arrived on campus in 2001, the operators were primarily focused on reactive maintenance, had limited system operating protocols, no preventive maintenance program, little understanding of how many of the complex systems within the campus operated, and no decision making tools to guide operating decisions. Aramark's energy-focused operations and maintenance program developed outcome-based strategies for all of these areas, which resulted in significant improvement in system operating efficiency, preventive maintenance, equipment reliability, efficiency, and end user comfort.

