

Contract Details

Contract Type:

Energy Efficiency; Energy Savings
Performance Contract; Guaranteed
Energy Savings; Water Conservation

Facility Size:

15 member institutions
Over 5.2 million square feet

Energy Project Size:

Master Contract: \$40 million
To-date: \$31.7 million

Energy Savings:

20 - 30% energy and operational
savings

Summary

In December 2002, Ameresco began a three-year ESPC contract with the Tennessee Board of Regents, East Tennessee Region. The contract was extended for two additional years. Ameresco was selected after an extensive RFP process. The Board extended the contract and dedicated over \$20 million for the project. Under this contract, Ameresco improved 11 campuses in the Eastern Region.



The Tennessee Board of Regents oversees 45 state-owned educational institutions. The Ameresco project is a \$31 million energy savings project.



The Board places special emphasis on technology training for the state's work force to better serve the state's economic development.

Customer Benefits

Ameresco was awarded a contract with the Tennessee Board of Regents—East Tennessee Region in December 2002, and construction started in May 2003. The original contract included 16 higher education facilities in East Tennessee that exceeded 5.25 million square feet and an annual utility budget in excess of \$7.4 million.

Ameresco was responsible for the identification, design, implementation and energy guarantee for measures that included technologies such as lighting upgrades, water conservation, direct digital control (DDC) upgrades, variable pumping systems and major HVAC system upgrades.

Accolades

"Ameresco demonstrated not only their ability to meet the technical and business qualifications, but also their flexibility in approach and eagerness to please their customers. The Ameresco team has been a pleasure to work with, and we have every confidence their excellent performance will continue."

*- Keith King, Project Manager
Office of Facilities Management
Tennessee Board of Regents*

Environmental Benefits

Through the Board's partnership with Ameresco, the Board reduced their carbon footprint.

The annual green benefits from this carbon reduction equal:

- ▶ removal of 15,171 cars from the road
- ▶ planting 20,643 acres of trees
- ▶ powering of more than 1,741 average-size homes

Services Provided

As of August 2011, Ameresco has completed nine projects and two are in the final stages of construction. The guaranteed savings performance contracts are for 15-year terms and are funded through Tennessee School Bond Funds. Each project phase was completed on schedule.

Pellissippi State Technical Community College

The first phase included 16 buildings totaling 543,819 square feet with annual savings of \$136,347. Project improvements included: lighting upgrades, water conservation, electric motor replacement, variable-flow pumping systems and energy management control system improvements. The lighting, water and variable-speed pumping savings were verified using field measurements; HVAC controls and mechanical savings were stipulated based on detailed engineering analysis. The project was completed on schedule. Phase 2 of this project began in March 2007 and was completed in April 2008. The project encompassed five buildings totaling 361,456 square feet with annual savings of \$65,601. Project improvements included: central plant optimization, boiler burner upgrades, electrical distribution enhancements at the Main Hardin Valley Campus, retrofit of a 40-year-old steam boiler and various 20-year-old direct expansion (DX) cooling systems at the Magnolia Campus using a Daiken varied refrigerant volume (VRV) system and the addition of a web-based energy management control system improvement. Electrical distribution enhancements will be verified using field measurements; HVAC controls and mechanical savings will be stipulated based on detailed engineering analysis.

About the Tennessee Board of Regents

The Tennessee Board of Regents (TBR) is a 45-member statewide institution with a combined annual enrollment of over 190,000. TBR is the nation's sixth largest system of public higher education. The Board's mission is to educate more Tennesseans in order to provide Tennessee with the work force it needs for sound economic development. Their technology centers are exclusively focused on workforce development, which is also a major emphasis at the state's community colleges.

Learn more at www.tbr.edu.

About Ameresco

Ameresco, Inc. (NYSE:AMRC) is one of the leading energy efficiency and renewable energy services providers. Our energy experts deliver long-term customer value, environmental stewardship, and sustainability through energy efficiency services, alternative energy, supply management, and innovative facility renewal all with practical financial solutions. Ameresco and its predecessors have constructed billions in projects throughout North America.

For more information about Ameresco and our full-range of energy efficiency and renewable energy solutions, please visit www.ameresco.com.



Ameresco completed work on seven member schools and is now working on two more schools for TBR.

Services Provided (cont.)

East Tennessee State University

Phase 1 of this project encompassed 31 buildings totaling 1,644,593 square feet with annual savings of \$425,992. Project improvements included: comprehensive campus-wide lighting upgrades and water conservation. Phase 2 of this project began in May 2008 and ended in May 2009 with annual savings of \$174,915. Project improvements included: central plant optimization, steam plant upgrades, full building renovation in two buildings, 80 variable-speed motor drives, work on air handling units (AHUs) in 28 buildings, and steam traps across campus. The lighting in the Memorial Center was also upgraded for televised HD games. HVAC controls, mechanical savings, and steam trap replacements are stipulated based on detailed engineering analysis.

Roane State Technical Community College

This project encompassed 14 buildings totaling 629,970 square feet with annual savings of \$221,504. Project improvements included: lighting upgrades, water conservation, a new variable air volume (VAV) system, electric motor replacement, boiler enhancements, variable-flow hydronic pumping systems conversion and extensive energy management control system improvements (TAC Controls). The lighting, water and variable-speed pumping savings were verified using field measurements; HVAC controls and mechanical savings were stipulated based on a detailed engineering analysis.

Walters State Community College

This project encompassed 12 buildings totaling 676,980 square feet with annual savings of \$143,638.

Project improvements included: lighting upgrades, water conservation, electric motor replacement, variable-flow pumping systems, energy management control system improvements, such as occupied/unoccupied schedules and chiller plant optimization control sequences. The lighting, water, motor and variable-speed pumping savings were verified using field measurements; HVAC controls savings were stipulated based on detailed engineering analysis.

Chattanooga State Technical Community College

This project encompassed 15 buildings totaling 595,622 square feet with annual savings of \$309,401. Project improvements included: lighting upgrades, water conservation, extensive VAV system retrofit, variable-speed drives on the primary chillers, electric motor replacement, variable-flow hydronic pumping systems conversion and extensive energy management control system improvements. The lighting, water, motor and variable-speed pumping savings will be verified using field measurements; HVAC controls savings will be stipulated based on detailed engineering analysis.

Northeast State Technical Community College

This project began in February 2005 and ended in December 2005. It encompassed 10 buildings totaling 257,918 square feet with annual savings of \$64,229. Project improvements included: lighting upgrades, water conservation, electric motor replacement, variable-flow hydronic pumping systems conversion, energy management control system improvements; and management and controls for the new plate/frame heat exchanger. The lighting, water, motors, variable-speed pumping and the plate/frame heat exchanger savings were verified using field measurements.

Cleveland State Technical Community College

The project encompassed 12 buildings totaling 339,895 square feet with annual savings of \$67,194. Project improvements included a comprehensive campus-wide lighting upgrade. The lighting savings were verified using field measurements (IPMVP – Method A).