



**Contract Details**

*Contract Type:*

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

*Facility Size:*

270,000 sq. feet

*Energy Project Size:*

\$2,092,096

*Energy Savings:*

\$189,419

**Summary**

In 2010 Ameresco completed a comprehensive \$2.1 million energy savings performance contract at Olympic College that resulted in \$189,419 a year in guaranteed energy savings. Excluding maintenance savings, the project is expected to pay for itself in just 8.4 years. The project was funded with incentives from Puget Sound Energy, Mason County Public Utility District and Cascade Natural Gas, capital reserves, and a low interest loan from the Washington State Treasurer. A \$130,000 Washington Department of Commerce grant and utility incentives totaling \$362,949 helped lower the net project cost to \$1,599,147.



More than 12,000 students attend Olympic College to pursue a range of disciplines. The college has three campuses in Bremerton, Poulsbo, and Shelton.



Ameresco and Olympic College completed a three phase ESPC project that should significantly lower maintenance costs, bring the facilities up to code, and improve the learning environment for students.

**Customer Benefits**

In 2007, Olympic College joined the American College and University Presidents' Climate Commitment (ACUPCC) as a means of communicating its commitment to environmental sustainability. The ACUPCC is a significant undertaking that requires members to uphold robust sustainability standards and report progress regularly. Not long after joining the ACUPCC, Olympic College selected Ameresco Quantum from the Washington Department of General Administration's list of pre-qualified Energy Services Companies (ESCOs) to help the College meet its ACUPCC commitments, enhance the learning environment, and reduce energy and operational costs at the college's three campuses.

The project replaced obsolete technology and failed equipment to provide significant long-term reductions in energy and maintenance costs for the College with minimal capital investment. Funded by utility incentives from Puget Sound Energy (PSE) and a \$130,000 grant from Washington State's Department of Commerce, the project was implemented on an operating budget-neutral basis. The project included a comprehensive overhaul of the energy management system using an open protocol, installation of building level sub-metering, as well as lighting upgrades and a water conservation retrofit.

**Environmental Benefits**

Through the College's partnership with Ameresco, Olympic is expected to save the equivalent of 1,001 metric tons of CO<sub>2</sub> per year. The green benefit from this carbon reduction is roughly equal to:

- ▶ 424 acres of pine forest absorbing carbon
- ▶ 193 cars taken off the road for one year

**Accolades**

*"Ameresco Quantum showed us the value of taking a comprehensive approach to energy conservation—of combining measures that pay back quickly with sub-metering or other long payback measures. With an Ameresco Quantum ESPC we were able to replace failing equipment that we might otherwise have had to live with for many more years."*

*- Bill Wilkie, Director of Facilities  
Olympic College*

**Services Provided**

This three campus energy savings performance contract (ESPC) encompassed extensive energy management systems upgrades, lighting retrofits and water conservation at all three Olympic College campuses. The core efficiency measure was a major upgrade and modernization of the College's building automation controls, as well as the expansion and integration of the energy management system (EMS). A key component was the installation of building level third party sub-meters to help the College meet the ACUPCC reporting requirements and allow the College to better monitor and manage energy, water and gas use at the building level. Ameresco also performed lighting retrofits; performed retro-commissioning and related repairs; installed a heat recovery system to pre-heat outside air; and completed a comprehensive water conservation retrofit. Improved resource metering and monitoring was accomplished through the installation of building level electricity, BTU and natural gas meters. Third party Shark electric meters were installed to monitor electricity use at the Poulsbo Campus, Shelton Library, Shelton Student Center, Welding Shop Building, New Humanities Building, and the Bremer

**About Olympic College, WA**

Founded in 1946, Olympic College is a public two-year community college that educates more than 12,000 students a year in a wide range of ages and with diverse backgrounds. The college has three campuses in Bremerton, Poulsbo, and Shelton, and serves a population of 280,000 residents living in Kitsap and Mason Counties. The institution provides opportunities to all students that want to attend and helps build skills for the next phase of their life or career.

*Learn more at*

<http://www.olympic.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 <http://www.ameresco.com> and <http://quantum.ameresco.com>.*



*Olympic College's partnership with Ameresco contributes to a more comfortable and healthy learning environment for students and staff and the cost of tuition did not increase as a result.*

**Services Provided (cont.)**

Building Bookstore. Onicon Meters for BTU monitoring via the direct digital controls (DDC) were installed at the Welding Shop Building. Additional DDC points to monitor pulse outputs from gas meters were installed at the PE Building and Automotive Building, and additional electrical, BTU and natural gas metering via the EMS were installed at the Poulsbo Campus, Shelton Library, Shelton Student Center, Welding Shop Building, New Humanities Building, and Bremer Building Bookstore. These systems enable the facilities staff to monitor resource consumption at all major buildings on all three campuses. Occupancy sensors were installed throughout the three campuses to enable a "daytime standby" mode, which relaxes the temperature and reduces the amount of outside air when spaces are unoccupied during the day.

At the Bremer Building Kitchen, Ameresco installed natural gas detection and safety technology tied to the EMS so that the ventilation systems can be shut down after hours. The monitoring system greatly improves the safety of the kitchen and saves resources. This commercial-size kitchen has dozens of standing pilots, forcing the College to run exhaust ventilation with 100% outside air 24/7. The natural gas sensors are automated and when a service interruption is detected will close the gas feed, initiate the ventilation system, and send an alert to the EMS.

All work in the kitchen took place while students were away on break.

At the Science Building, the DDC was connected to the makeup-air terminal boxes with the associated hood exhaust fans to correct problems with heat recovery and outside air.

At the Business and Technology Complex, three dedicated split air conditioning units were installed for the Tel/Data MDF room, Server Room and the Computer Lab so that the building's main air handling systems can be turned off after-hours.

Design, programming, technical development and labor to network the power/gas/BTU sub-metering via the campus EMS offers automated monitoring and reporting. While construction was underway, Ameresco provided on-going operational training for the building staff to better understand how to use the equipment and troubleshoot any problems that might arise. This was an important step as it will reduce service calls and their associated expense.

The balance of the project included the implementation of both lighting and water conservation measures. The College had already implemented a significant amount of lighting upgrades and retrofits. Ameresco identified additional lighting opportunities for the College both inside and outside its facilities. Interior lighting was retrofitted at the Bookstore and Gym, and the failing breaker panel was replaced and brought up to code compliance. Exterior parking and pathway lighting was converted to fluorescent technology.

Meanwhile, the local utility had approached Ameresco for guidance regarding an incentive program they were considering; and after Ameresco provided historical data, they implemented a new program to provide an incentive to relamp fixtures with lower wattage lamps. The water retrofit included replacing fixtures with touch-free low flow alternatives and tamper proof aerators. Both the lighting and water retrofit occurred after-hours.