Project Summary: Riverland Community College, with campuses in Albert Lea, Austin, and Owatonna, used an Energy Savings Performance Contract (ESPC) to make major energy upgrades throughout its facilities. It was the first college to use the state’s Guaranteed Energy Savings Program (GESP) to oversee its project, which focused on improving lighting, lighting controls, energy management controls, building envelope, chiller controls, and water conservation measures such as faucet aerator retrofits. The project was completed in fall 2017 and is expected to reduce electricity use by 27% and yield cost savings of $136,632 per year. The project is being paid for over 15 years via energy, operation and maintenance savings, which are guaranteed by Honeywell, the energy services company.

Aims & Objectives: The college looked at energy savings as a great way to implement building upgrades. “Retrofitting the lighting to LEDs and upgrading the building energy management system were the projects that motivated the college to pursue the Guaranteed Energy Savings Program,” said Brad Doss, Riverland Community College Chief Financial Officer. “However, completing the work through GESP enabled the college to also upgrade the building envelope and install water conservation measures as well.”

What’s more, the college was pleased that it could get all the work done “now,” Doss added. “The Guaranteed Energy Savings Program allowed Riverland Community College to get work done that the college would not have been able to do within our normal operating budget.”

Assessment & Energy Savings Performance Contract: Following a preliminary assessment of energy needs and opportunities, Honeywell performed a detailed analysis of the potential savings and costs for each accepted energy and water savings measure. The contractor prepared an Energy Savings Performance Contract proposal to design, install, and monitor the energy and water saving measures proposed in the Investment Grade Audit Report. Terms included:

- Project price;
- Complete list of services to be provided as related to each cost;
- Term of the contract;
- Description of financing options and recommendations;
- Explanation of how the savings will be calculated and adjusted; and
- Analysis of annual cash flow for the state institution during the contract term.

Energy retrofit: Upgrades to building controls, building envelope, chiller controls, lighting controls, and replacement of campus-wide lighting with LEDs.

Cost: $1.54 million

Annual energy savings: 7,733 MMBtu

Annual cost savings: $136,632

Energy services company: Honeywell

State assistance: Guaranteed Energy Savings Program

Utility rebates: $81,525

Project completed: Fall 2017

“...The Guaranteed Energy Savings Program allowed Riverland Community College to get work done that the college would not have been able to do within our normal operating budget.”

—Brad Doss, Riverland Community College Chief Financial Officer
Implementation: The work was completed campus-wide in four buildings. Controls and lighting were retrofitted to meet campus needs. The control work focused on ensuring correct set points; recommissioning the heating, ventilation, and cooling system; proper programming; installing additional sensors; and upgrading the digital direct controls. Interior and exterior lights were retrofitted to LEDs. The West Campus chiller was retrofitted with controls and variable frequency drives to optimize the fan power. Austin West retrofitted their faucet aerators and upgraded to flushometers to save water. Last, building envelope upgrades were completed college-wide and included insulation, caulking, and installation of door sweeps to reduce air leakages.

Results/Benefits: In 2018, Riverland will document utility savings achieved in 2017 from its energy conservation measures. “If the college would have completed all of this work through a piece-meal approach, it would have taken years longer to get all the work done,” said Doss. In addition, Riverland was able to complete a couple of special projects through GESP, added Doss. “A side benefit of GESP was the ability to upgrade the theater lighting. The college doesn’t want staff to access the theater lighting often for safety reasons. Even though the theater lighting had a more than 120-year payback, the college was able to retrofit it with lower maintenance lighting and finance it through GESP, because the lower payback energy conservations measures helped pay for it.”

The college was excited by the energy savings achieved through the performance contract, and it was impressed by the additional building functionality achieved through the project. Shawn O’Connor, Riverland Community College Physical Plant Director, said “the updated building energy management system installed allows Riverland to shut down additional parts of the college when not in use, which it has never been able to do before.”

What’s more, the energy services contract struck by Riverland and Honeywell included collaboration with a third party, the Guaranteed Energy Services Program, which provided support to the college every step of the way. GESP provided transparency to the process by evaluating the technical and financial feasibility of the Energy Services Company proposals and by providing project technical assistance to ensure that the cash flow and ESPC Measurement and Verification Plan were properly designed to ensure contract performance. “When challenges came up in the project, it was helpful to have technical assistance from the Department of Commerce available through GESP,” said O’Connor.

What is the Guaranteed Energy Savings Program?

The Guaranteed Energy Savings Program (GESP) is a procurement and financing mechanism that assists state agencies, local units of government, school districts, and institutions of higher education with the development, implementation, and ongoing measurement & verification of energy efficiency and/or renewable energy projects. Participants gain access to technical assistance from Commerce, pre-qualified Energy Services Companies, a Master Contract, selection and procurement documents, and GESP staff oversight for each phase of the project that can last up to 25 years. The intent of the program is to maximize job creation and operational cost savings through investment in public facilities.

GESP is administered by the Minnesota Department of Commerce. It can help public entities:

- Solicit and award site-specific RFPs from pre-qualified Energy Service Companies (ESCO) to perform Energy Savings Performance Contracting (ESPC) services;
- Evaluate the technical and financial feasibility of ESCO proposals;
- Negotiate and award work order contracts to pre-qualified ESCOs to implement energy conservation measures;
- Offer project management oversight; and
- Ensure that the ESPC Measurement and Verification Plan is properly performed.

For information on GESP, send an email to energy.info@state.mn.us or call 800-657-3710.