

project profile



Higher education is taking energy efficiency and sustainability to new heights.

Eastern Illinois University is reducing its environmental impact and mitigating utility costs by pairing traditional conservation measures with one of the largest university biomass installations.

Honeywell

Center of Excellence

The Customer

Eastern Illinois University

- Eastern Illinois University (EIU) is a public university located in Charleston, Ill. It is comprised of approximately 13,000 students and staff on a 320-acre campus.

The Problem

- EIU faced a significant deferred maintenance backlog, rising energy costs, aging infrastructure and limited budget.
- State funding for major capital projects was severely limited, making improvements difficult.

Honeywell Solution

- The university and Honeywell, the school's long-time energy advisor, collaborated to identify necessary improvements and build a program to address utility bills.
- The focal point of the program is the design of a new steam plant — called the Renewable Energy Center — driven by two large biomass gasifiers.
- The Center will replace the university's aging steam plant, which consumes more than 10,000 tons of coal per year and requires constant maintenance.
- The Center, which is being built to meet LEED® Gold certification requirements, also includes an instructional classroom for students in the new EIU Center for Clean Energy Research and Education.
- Honeywell and the school entered into a 20-year energy savings performance contract, helping reduce any burden on EIU's budget, or the need for additional taxpayer dollars or student fees.

Key Technologies

- The biomass gasifiers use wood chips sourced from the logging industry to produce a biogas that burns similar to natural gas and is used to fire boilers, giving the university a carbon-neutral solution for heating all its facilities.
- Along with the gasifiers, the Renewable Energy Center features a solar array and a turbine that uses high-pressure steam to produce electricity.
- Additional conservation measures on campus included retrocommissioning all mechanical systems, replacing windows, upgrading lighting fixtures, updating chilled water systems and sealing buildings.



“Like many universities, our list of needs across campus is much larger than the financial resources available. This program allows us to make critical improvements and keep our facilities comfortable and functional for years to come. It’s an ideal solution for the university and surrounding community.”

*— Bill Perry, President,
Eastern Illinois University*

Guaranteed Impact

The university will see significant benefits from the improvements:

An estimated 6.2-million kilowatt-hour reduction in annual electricity use — enough energy to power more than 580 homes.

ENERGY 
consumption

Nearly 20,000 metric tons in fewer carbon emissions each year, which is equivalent to removing 3,600 cars from the road.

greenhouse gas
EMISSIONS 

Approximately \$140 million in energy and operating cost savings over the next two decades.

energy and operating
COSTS \$

Honeywell Building Solutions

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Printed on recycled paper containing 15% post-consumer waste. 

SL-53-2287
October 2011
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