

## An Energy Saving Experience

Trane systems expertise helped Keuka College, the leader in experiential learning, upgrade HVAC systems for improved comfort, efficiency and energy savings.

### Challenge

Keuka College, like many institutions, faced rising energy, maintenance and repair costs. Budgetary pressures made funding needed system upgrades a challenge.

### Solution

Keuka College and Trane worked to develop a Trane PACT (Performance Agreement for Comfort from Trane) agreement in which the cost of HVAC and efficiency upgrades is funded by energy savings. Trane identified financially feasible improvements and energy conservation measures to generate positive cash flow. Trane also helped secure \$275,000 in NYSERDA (New York State Energy Research and Development Authority) grants and subsidies to offset costs. As prime energy performance contractor, Trane provided:

- A comparison of campus improvement alternatives
- A streamlined design/build process
- Lighting upgrades
- A new, high-efficiency underground steam/condensate system
- Demand-control ventilation in several buildings



Keuka College, Keuka Park, New York

### Building Specifications

#### **Jephson Hall - 22,000 sq. ft. with laboratories**

Installed fume hood damper controls, CO2-based ventilation controls, temperature setback, and improved fan cycling/shutdown and existing VFD control.

#### **Lightner Library - 40,000 sq. ft.**

Installed CO2-based ventilation controls, temperature setback, and improved fan cycling/shutdown and existing VFD control.

#### **Hegeman Hall - 49,000 sq. ft.**

Installed CO2-based ventilation controls, temperature setback, and improved fan cycling/shutdown and existing VFD control.

*"Their repeat selection as the vendor/contractor of choice indicates the high value Trane provides the College." Jerry Hiller, Keuka College Vice President of Finance and Administration*

- A Trane Tracer Summit™ automation system upgrade/consolidation
- Electric submetering and load management/trending program
- HVAC systems recommissioning

**Results**

Keuka College is guaranteed, through Trane PACT, to achieve annual energy savings of \$154,000—a 21 percent reduction in energy costs. Savings will grow as energy costs increase. Overall, the project has a forecast positive cash flow of \$594,000 over 10 years, based on 2005 energy costs. Jerry Hiller, Keuka College Vice President of Finance and Administration, said, "Trane helped initiate and design an energy conservation and

management program for the college, the first of three projects that Trane was selected to implement. Replacement of a central chiller system was recently completed and Trane is now working on a third project- the MEP portion of the Ball Hall renovation, the signature, founding building on campus. Their repeat selection as the vendor/contractor of choice indicates the high value Trane provides the College."

From integrated comfort systems to systems management and climate controls, Trane ensures that your building environment is right so you can run your business better.

*For more on Trane solutions, visit us at [www.trane.com](http://www.trane.com)*

**Systems Installed**



Keuka College systems upgrades from Trane include:

- Replaced steam/condensate distribution system to reduce natural gas and water usage, resolve safety issues and address a deferred maintenance need.
- Replaced existing lighting ballasts with high efficiency ballast in several campus buildings to save energy and reduce maintenance costs.
- Trane provided professional engineering services including comprehensive energy study, NYSERDA funding procurement, engineering design and specification services, construction management and administration, measurement and verification and retro-commissioning services.

**About Keuka College**

Keuka College is the nation's leader in experiential, hands-on learning and is ranked by U.S. News and World Report as one of the top comprehensive colleges in North America. Keuka College offers college degrees in 36 areas of study. 2005 enrollment totaled nearly 1400 full- and part-time students.

*Above photo: HVAC modifications to Keuka College's Jephson Hall greatly improved dehumidification performance.*



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