

# University taps Panoptix platform to uncover hidden energy savings

## Western Kentucky University recovers investment in less than six months with Johnson Controls Panoptix® Solution

Long before 'sustainability' became an industry buzzword, Western Kentucky University (WKU) was taking steps to increase energy efficiency on campus and reduce its impact on the environment. In the 1980s, the university began to install building management systems to more effectively manage the energy, comfort and safety needs of campus buildings and their occupants. And over the decades that followed, WKU emerged as a world-class leader in sustainability, developing programs to reduce energy consumption and greenhouse gas emissions, conserve water and encourage bicycling on campus.

Today, the challenge for Western Kentucky University is to make the most of every investment in sustainability, including its efforts to increase building efficiency. Johnson Controls Metasys® Building Automation Systems, for example, are installed in 56 buildings across three WKU sites and generate highly detailed data about what's happening inside each of those facilities. But until now, the university hasn't taken full advantage of the data. "We've been tracking campus-wide energy usage since 2007," said Dale Dyer, plant operations manager. "But because we manage much of the data by hand, it's been too labor intensive to do building-level analyses, even on the buildings we had sub-metered. We've just never had the resources to fully benefit from the volumes of information available to us."

That's now changing. When Dyer and his facilities team at WKU began to look for ways to use the data delivered by Metasys to reduce energy consumption and better track sustainability results, they turned to long-time partner Johnson Controls and its Panoptix solution.

### BRINGING DATA TO LIFE IN A WAY THAT'S RELEVANT, MEANINGFUL AND ACTIONABLE

Panoptix is a Building Efficiency Platform that takes complex building system data and turns it into actionable insight. Panoptix collects data from a single building or a global enterprise and transmits it to the cloud where it can be used with a range of applications to deliver better control over energy use, equipment operation and occupant comfort. It tracks trends, charts energy use, and continuously monitors equipment for faults that could affect energy



Photo Courtesy of WKU Photography

### Western Kentucky University At-a-Glance

**MAIN CAMPUS:**  
Bowling Green, KY

**FOUNDED:** 1906

**STUDENT POPULATION:**  
21,000

**BUILDINGS:** 3 sites,  
56 buildings with  
Metasys® BAS

**UTILITY BILLS:** 300+  
monthly integrated  
into Panoptix

consumption, a priority for Dyer and his WKU team. “The Continuous Diagnostics Advisor app was a major factor in our decision to go with Panoptix,” said Dyer. “We’re able to monitor our HVAC systems for faults 24/7, making it possible to head off problems before they impact the bottom line.”



In its first 120 days in use at WKU, the Panoptix® Continuous Diagnostics Advisor application (CDA) detected a range of building system faults such as improper sequencing, improper valve and damper positions, improper ventilation and missed opportunities to reduce peak demand. In addressing the faults, WKU achieved two goals. The university created more comfortable learning environments on campus and recovered its Panoptix investment in less than six months.

Along with CDA, Western Kentucky University is taking advantage of three other Panoptix applications that allow the university to:

- Compare the carbon footprint of their properties to similar buildings and industry averages with the Panoptix Carbon and Energy Reporter application
- Track the savings from improvement projects with the Panoptix Energy Performance Monitor application

- Aggregate data from a variety of sources including weather conditions, building systems, utility bills and meters, then identify opportunities to streamline maintenance with the Panoptix Custom Analyzer application

Armed with more accurate and timely knowledge of how systems are functioning, WKU is confidently making critical decisions about reducing energy use and maintaining or replacing equipment, further solidifying its role as a leader in sustainability.

## HARNESSING THE SPIRIT OF INNOVATION TODAY AND FOR THE FUTURE

The Panoptix solution is always expanding. It’s an open platform, which means new applications can be added at any time, both by Johnson Controls and by third-party developer partners. Users are encouraged to share and explore best practices through the online Panoptix Community. A dedicated team of professionals is assigned to each customer to help with installations, personalized tech support, training and coaching via telephone, email and chat. “We like that kind of initiative,” said Dyer. “We consider our university a leader in innovation in Kentucky, so being a part of this pioneering community of Panoptix experts, users and developers is something we’re really excited about. Doing things the way we did yesterday is just not an acceptable place for us to stay. It never has been.”

The same can be said for Johnson Controls.



Panoptix CDA constantly monitors building systems to detect problems that waste energy and impact tenant comfort.

## FOR MORE INFORMATION

For more information or to get started today, please visit us online at: [www.johnsoncontrols.com/panoptix](http://www.johnsoncontrols.com/panoptix).

## PANOPTIX COMMUNITY

For deeper insight and active engagement with current and future Panoptix users, visit the community at: <http://whatspossible.johnsoncontrols.com/community/panoptix>.