

Case study

Hinds Community College

Raymond, Mississippi



Energy conservation, the focus of facility and controls upgrades

Hinds Community College is a comprehensive educational institution serving approximately 15,000 students each year. The college's mission is to offer pertinent and diverse educational programs and services for persons with various interests and abilities. In an effort to maintain a quality academic environment while decreasing operational costs, Hinds enlisted the help of Johnson Controls. The resulting facility upgrades, energy conservation measures and improved facility controls have provided annual savings of more than \$850,000.

What began as a small agricultural high school in 1917 is today the second largest institution of higher education, serving five counties, in the state of Mississippi. Hinds Community College encompasses 165 buildings on six campuses. The college serves students transferring to four-year universities and those completing career or technical programs. Hinds is also involved in community workforce development that enables local business to thrive.

Dr. Clyde Muse, president of Hinds Community College, is especially proud of the role the college plays in the communities it serves and in its continued growth. "With this growth comes challenges however," says Dr. Muse. "Rising enrollment means adding buildings and improving our facilities. And doing this in the face of rising utility costs made it critical for us to get our energy usage under control." "In addition, a State mandate required that we put an energy conservation program in place," adds Jesse Jones, director of energy and maintenance.

According to Dr. Muse, the college knew a number of companies that offered cost cutting measures. A committee was formed to interview the companies and



Jesse Jones – director of energy and maintenance, Dr. Clyde Muse – president, and Sarah Janes – HVAC technician.

review recommendations for energy conservation at Hinds. “Ultimately, we received a recommendation from the committee along with considerable evidence that Johnson Controls should be the company we work with. And we haven’t been disappointed,” says Dr. Muse.

Upgrades and improved control make major impact

Maximizing return on investment was a critical factor for Hinds. “We wanted to lower our utility costs, yet minimize our capital investment by making full use of equipment we already had in place,” explains Jones. Johnson Controls conducted a college-wide analysis of how Hinds was using energy to determine where the greatest impact could be made. The result was a series of lighting retrofits, mechanical systems upgrades, electrical upgrades and water conservation measures including low-flow plumbing fixtures at facilities throughout all six campuses.

Key to providing maximum control of new and existing equipment was the installation of Johnson Controls Metasys® building management system at all the campuses. “The overall result has been a 20 percent savings in utility costs, which allows us to pay for the improvements themselves,” states Dr. Muse. “Once they are paid for, the continued savings will be available to us for additional improvements.”

The improvements also help the college run its facilities more efficiently. “Even though we’re a large college we have a substantially smaller budget than other colleges. With the help of Johnson Controls and with the Metasys system, we are able to operate all six campuses more effectively and optimize equipment performance with a relatively small staff, and still keep costs down by saving energy,” says Jones.

Sarah Janes, HVAC technician, experienced in operating Metasys was hired by Hinds to manage the system. From a central location, Janes is able to monitor equipment throughout the district. “Along with providing greater control of academic environments across the campuses, the system allows me to address potential problems before they become an issue,” says Janes. “And I can often identify the source of a problem before sending a maintenance team out, which can save considerable time for a college that covers such a large geographic area.”

The Metasys system also helps Janes meet the various scheduling needs of the college’s active campuses. By accessing an HVAC scheduling request on the Hinds’ Intranet, college staff members are able to post off-hour activities. “From my office, or remotely via the Internet, I can program HVAC operation in advance and avoid the need for maintenance personnel to be present,” says Janes. “Flexibility in system control and the ability to integrate multiple facilities was a key requirement that Johnson Controls was able to meet,” adds Dr. Muse.

“We consider Johnson Controls to be a valuable partner and a resource in our ongoing energy conservation initiatives.”

DR. CLYDE MUSE
PRESIDENT
HINDS COMMUNITY COLLEGE

Johnson Controls also uncovered other savings by negotiating new rates with the local telecommunications provider for calls made between campuses. An analysis of waste management uncovered savings through the purchase of trash receptacles at all campuses versus renting them. And by installing occupancy sensors on lights and compressors in vending machines at all facilities, the cost of operating the machines was reduced.

Design-build solution for dormitory upgrades

With the major energy conservation projects completed, Dr. Muse and Jones directed their attention at the college's two main dormitories where outdated and inefficient HVAC systems needed to be addressed. Johnson Controls was asked to present recommendations for improvements and then contracted to provide turnkey design, installation, supervision, startup and commissioning of the new systems.

Timing was critical on this project since it had to be completed between semesters so the dorms would be ready for returning students. Along with utility metering for each dorm, the design included integrating the new HVAC systems with the Metasys system. This allows for the trending of electric and natural gas use and for HVAC equipment to be setback during unoccupied times

"Johnson Controls served as a general contractor, working closely with campus personnel and subcontractors to ensure the goals of the project were met. They continue to work with us through reporting and by being responsive to our needs," says Jones. "We consider Johnson Controls to be a valuable partner. As we move forward with additional energy conservation initiatives we will not hesitate to contact them," says Dr. Muse.



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