

Case study

Florida Gulf Coast University

Ft. Myers, Florida



New Florida university reins in utility costs while increasing comfort

Established on the verge of the 21st century, Florida Gulf Coast University (FGCU) infuses the strengths of the traditional public university with innovation and a learning-centered spirit. FGCU, a member of the State University System of Florida, is a comprehensive university created to address the educational needs of the rapidly growing Southwest Florida population. The university serves more than 8,200 students and has 60 buildings.

Johnson Controls has supported FGCU's campus initiatives since it opened in 1997, with a campus-wide Metasys® building management system and various service contracts. To improve comfort and decrease energy costs, FGCU entered into a performance contract with Johnson Controls in 2002 which increased cooling capability, lowered the costs of providing chilled water, and included additional campus energy efficiency improvements.



Challenges

- Reduce electric utility costs. As an all-electric campus, FGCU had the highest energy costs per square foot of any Florida state university.
- Increase cooling capacity to keep pace with consistent 10–15 percent annual enrollment growth.
- Make necessary improvements without spending capital budget dollars.

Johnson Controls solutions

- Add 16 thermal storage tanks so that more cost-effective ice cooling could reduce the burden on chillers. Adjust the control strategies for these tanks, activating them automatically during peak demand periods – particularly afternoons in July and August.
- Perform major HVAC control system upgrades in campus buildings and install variable speed drives on chilled water pumps.
- Utilize the performance contracting financing method which enables the annual savings generated by these improvements to fund the project.

Results

- Guaranteed annual savings of \$144,000. After the first three years of the 15-year agreement, Johnson Controls has far exceeded the guarantee by saving nearly \$700,000 for the university.
- Secured FGCU's five-year utility cost increase at 12.8 percent compared to a state university system average of 28.8 percent, thus freeing up funds to help support the continued student enrollment boom.
- Increased comfort for students and faculty during hot and humid Florida summer afternoons.

