

# CASE STUDY



## Gahanna Christian Academy

Gahanna, OH

**\$771K+**

Investment

...

**\$31K**

Annual Savings



Over \$23K in annual utility savings from the upgrades

...

Simple payback period of 24 years



Upgrading all lights to energy efficient LEDs

...

Replacing the original boilers that are 17 years past their useful life

### The Client

Gahanna Christian Academy (GCA) is a private PreK-8th grade school in Gahanna, Ohio whose culture, goals, instruction and expectations are grounded in developing disciples of Christ. Since 1987, they have served hundreds of students each year.

### The Challenge

Due to their aging facilities and inefficient systems, GCA struggled to control the temperature of their building. They needed to add a comprehensive controls system over their thermostats to manage their occupancy schedules. Their boiler was original to the building and was constantly running in overdrive, raising their operation and maintenance costs. In addition, their lighting was outdated and inefficient.

### Our Solution

After Plug Smart's energy audit, we helped them utilize PACE (Property Assessed Clean Energy) financing to upgrade their aging systems. By upgrading their interior and exterior lighting to more efficient LEDs, and by adding occupancy sensors, they will reduce their energy consumption by approximately 45%. GCA will also implement a BACnet control system to gain better control of alarming, scheduling, and monitoring their HVAC system and boiler diagnostics. GCA will replace their end-of-life boiler and optimize the boiler's piping to improve system efficiency. By having better control of their HVAC system, they will be able to regulate the temperature and increase comfort for their students and staff.

*"We are excited to help Gahanna Christian solve their control issues and upgrade their aging facility systems to provide a more comfortable environment for their students and staff."*

— **Matt Kussman,**  
VP of Project Development  
Plug Smart