

# Midland College



## THE OPPORTUNITY

Midland College, with a main campus on 224 acres, is located in Midland, Texas – a county seat of over 100,000 people. Responding to a growing need to effectively manage university data integrity and access, Midland College and ENGIE Services U.S. (ENGIE) partnered to develop an innovative cloud solution that reduces the overhead costs for its IT department. College leaders also recognized other energy efficiency improvements to be made that would contribute to better learning environments for students and a healthier financial future for the College.

## THE PARTNERSHIP

Midland College's partnership with ENGIE began in 2012, and has been a key platform for improving the learning environment for nearly 8,000 students. Working closely with College leadership, a team of Texas-based ENGIE engineers designed and delivered an energy savings plan based on current infrastructure needs and long-term projected growth. Through ENGIE's comprehensive implementation approach, Midland College was able to improve interior and exterior lighting with LED retrofits and address building envelope and temperature control issues for the classrooms and residence halls. College leaders also recognized that cloud computing is transforming how colleges stay ahead of the curve. They were eager to implement a unique cloud computing program to reduce costs while enhancing IT service. Making the various energy upgrades and the cloud computing solution across many servers and desktops with minimal disruption to students and campus services was important to College leaders. After a thorough planning phase, ENGIE virtualized 32 existing physical servers and migrated all existing data to these new cloud-based servers. All server and hardware software, in addition to 24/7 monitoring capabilities, was configured and tested on site at the Midland College Data Center. Coupled with training for all desktop users as part of

## Program Highlights

- Captures \$4.4MM in energy and operational savings over the next 15 years
- Improved indoor and outdoor LED lighting, providing a significantly more secure campus environment
- Resolved building envelope and temperature control issues for classrooms and residence halls
- Reduces overhead costs for its IT department by implementing a unique cloud computing solution
- Reduces CO<sub>2</sub> emissions by 562 tons – the equivalent to removing more than 100 passenger vehicles from the road every year

## Technical Scope

- Comprehensive interior and exterior LED lighting retrofits
- Installed temperature sensors and networked thermostats

#### Technical Scope (continued)

- Implemented a cloud computing solution with virtual desktops and consolidated servers in a virtualized data center with full virtual environment support
- Chilled Water Optimization
- Replaced chillers
- Installed window film for 16 buildings

the network connectivity upgrade, the college's new cloud-based system reduces IT costs and improves efficiency.

### 3 DIMENSIONS OF IMPACT

ENGIE is committed to building three dimensions of impact in every customer's future:



**Supporting People**



**Saving Money**



**Protecting the Environment**

In June 2015, Midland College completed construction of its multi-phased energy program with ENGIE. The program modernized campus facilities and made a positive impact on students. LED retrofits campus-wide provide better interior lighting that enhance the student and staff experience in classrooms and brighter exterior lighting enhance safety and security in parking lots. Additionally, building envelope and temperature control issues were resolved across 29 buildings.

The campus-wide sustainability improvements, including innovative cloud computing efficiency solutions, help the College capture \$4.4 million in energy and operational savings over the next 15 years. The nearly \$3.5 million project will pay for itself and an impressive 83% of the total savings resulted from the cloud computing initiative. ENGIE also guarantees energy savings of over \$142,000 annually. Also, the program saves the College over 1,593,000 kWh of electricity each year, equivalent to the average of 100 homes' energy use for one year.

ENGIE and Midland College found solutions that allow for effective management of College data integrity and access and provides real fiscal benefits. Midland College continues to demonstrate leadership in achieving operational savings that make a difference across campus without raising student costs.

