

## ALAMANCE COMMUNITY COLLEGE



### COLLEGE FACTS

Founded in 1958

Approximately 3,000 students  
enrolled per semester

### BUILDINGS

Seven campus buildings in project  
383,440 total campus square feet

Buildings constructed between 1975  
and 2010

Includes classrooms, offices, early  
college, child care

### CASE STUDY HIGHLIGHTS

Project Size: \$2.4 million

Construction Period: 1 year

Guarantee Term: 15 years  
\$237,540 guaranteed Year 1  
savings

\$127,330 in guaranteed energy  
rebates from Duke Energy

Implemented a comprehensive set  
of energy conservation measures  
(ECMs)

### THE CHALLENGE

Several campus buildings at Alamance Community College had aging control systems and mechanical equipment that had become difficult to maintain and control for campus staff. High existing energy usage intensity (95.7 kBTU per square foot) versus the national average for similar type facilities (59 kBTU per square foot) provides opportunity to reduce waste within the existing utility budget to fund these much needed capital improvements.

### THE SOLUTION

Piedmont Service Group completed an investment grade audit of Alamance Community College's facilities in 2019 and will complete construction in April 2020. The audit included analysis of existing utility consumption and cost, existing building condition surveys, and key parameter measurements used in energy models to evaluate potential savings.

Existing pneumatic controls are currently being upgraded to DDC controls with capability for remote monitoring, fault detection and diagnostics through Piedmont Service Group's BuildingSentinel analytics platform, and advanced sequences to reduce energy consumption. Dual duct mixing boxes are being upgraded to new boxes with independently operating dampers and air handling units will be refurbished. A new chiller will be installed on the Gee building to be the new lead chiller for building cooling.

Mechanical upgrades for the ACC campus also include:

- Replacing three-way valves with two-way valves to further utilize VFDs
- Replacing older split systems serving maintenance offices and IT department
- Adding a VFD to the cooling tower to optimize tower energy consumption

Other campus upgrades include:

- Upgrading existing campus lighting to LED lighting
- Lighting occupancy controls
- Recommissioning and upgrade of water fixtures
- Domestic hot water system upgrades
- Vending misers

## ABOUT THE CLIENT

Alamance Community College (ACC) was founded in 1958 and is one of the first organized community colleges in the state of North Carolina. The college moved to its current location on Jimmie Kerr Road in 1971 and added the Dillingham Campus in Burlington in 2008. ACC has thirty-three different departments in various academic disciplines.

## HOW CAN WE HELP YOUR BUSINESS GROW?

Piedmont Service Group makes buildings more efficient. A leader in energy services, Piedmont has expanded its core HVAC business to address the growing market demand for energy efficiency and sustainability services. The company is headquartered in Raleigh, NC and employs 168 people across seven locations in North Carolina, South Carolina and Virginia. Piedmont was founded in 1971.

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