

# SENECA HIGH SCHOOL

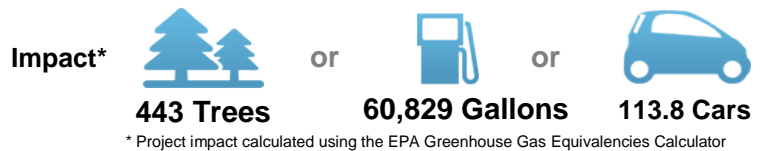
## CASE STUDY



QUICK GLIMPSE	
Customer	Seneca High School
Measures Implemented	Control System Retrofit
Total Project Cost	\$313,690.00
Estimated Annual Energy Savings	484,976 kWh 38,886 Therms
Estimated Annual Cost Savings	\$69,714.65 /year
DCEO Incentives Received	\$192,167.36
Estimated Payback	1.46 years

### BASELINE

Built in 1978; Seneca Township High School serves approximately 500 students in a 270,000 square foot facility. This building had an outdated Building Automation System (BAS) with many deficiencies such as failed controllers and mis-calibrated sensors and devices. The Seneca High School staff also lacked the ability to manipulate BAS settings on their own, requiring staff to place service calls for every change, even occupancy schedule changes. This operational protocol resulted in numerous charges from their BAS service provider.



### OUR SOLUTION

ECSI developed a plan to remove the existing BAS and install an award-winning BAS by Automated Logic® that is a native BACnet® (open protocol communications). The intuitive interface for this system is called WebCTRL®. In addition to the installed hardware, ECSI installed new outside air temperature and humidity sensors, differential pressure sensors, and CO<sub>2</sub> sensors to implement energy conservation measures like dynamic reset and demand control ventilation.

### BENEFITS

The Energy Services Team at ECSI identified that Seneca High School qualified for the Metropolitan Mayors Caucus Public Sector Energy Efficiency Program Grant funded by the Department of Commerce and Economic Opportunity (DCEO) to offset costs for the new BAS because of the energy savings to be gained.

WebCTRL® offered many solutions. Some include:

- Schedule the HVAC system to obtain start up and shut down sequences
- Implementation of Dynamic Reset of discharge air and pressure setpoints on the AHU helped curb demand on the central plant
- Zone History feature provided staff with visual analytics to identify which areas of the building operated during unoccupied periods
- Reduced school staff time spent on the HVAC system
- Avoidance of Equipment Failure
- Better air quality providing a more comfortable learning environment for students

