

# Broome-Tioga BOCES Binghamton, New York



**Novus Engineering, P.C.** was selected to conduct an energy audit for two main campus buildings, the Education Center and the High School Building, totaling approximately 74,800 square feet at the Broome-Tioga BOCES facility in Binghamton, NY. The project was completed as part of the NYSERDA Flexible Technical (FlexTech) Assistance program, and received NYSERDA cost share assistance.

As a part of the project, Novus completed a thorough investigation of the building's mechanical and architectural systems, as well as a full review of the lighting systems. Results of the audit produced a list of Energy Conservation Measures (ECMs) as well as operations and maintenance recommendations. ECMs included such improvements as lighting retrofits, installing occupancy sensors,

and replacing roof top units. Operations and maintenance recommendations included ensuring windows are properly shut and turning off unnecessary electric space heaters.

Building models using Carrier's Hourly Analysis Program (HAP) v4.3 were developed to help evaluate several options for the replacement of mechanical equipment. Simulation outputs were used to compare the existing base case with new alternatives including high efficiency roof top units with heat recovery ventilation and geothermal heat pumps.

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