



West Point Military Academy

On-Site Energy Management

About the Facility:

The United States Military Academy is a four-year federal service academy in West Point, New York hosting approximately 4,000 cadets and 500 faculty members plus support personnel. The academy is located on the western bank of the Hudson River and has a footprint of 16,000 acres with 7.4 million square feet of buildings.

Scope of Work

Sain Engineering Associates, Inc. (SEA) provided three energy consultants onsite to assess low/no cost savings needs, noting items such as:

- Overheating of water temperatures
- Air handlers and equipment efficiency needs
- Building occupancy schedules to automate services
- Occupancy needs by administrative/classroom space
- Lighting and control optimization, alternative sources
- Repairs for items such as pipes, valves, heat exchangers, storage tanks, etc.
- Maintenance needs for clean coils on air handlers, chillers and condensing units
- Determining when to replace door weather-stripping
- Plans for establishing building closing routine

Resulting in potential capital projects for the replacement/installation of:

- Once through water cooled package units
- Window air conditioners with ductless mini splits or VRF systems
- Central steam heating of DHW with individual building condensing boilers
- Gym and high bay lighting with fluorescents or LEDs with occupancy sensing and daylight harvesting controls
- Collection tank to use once through dry cleaner condensing water to feed clothes washers for saving water and recovering waste heat

Implementing SEA actions could result in reduction of Utility Savings by **11%** annually estimated at **\$1.8M**.

16

Acres

7.4M

Square Feet in Buildings

3

Onsite Energy Managers