



New York State Department of Corrections

State/Local Government | Green Haven, Bedford-Taconic and Sing Sing Correctional Facilities

Constellation delivers energy and environmental solutions that help customers save energy, minimize costs, and reduce greenhouse gas emissions. Our expert and dedicated staff, combined with our unparalleled corporate resources, provide world-class energy solutions, including consulting, assets, efficiency services, renewable generation, and energy supply. Our solutions are designed to achieve your energy goals and promote a sustainable future.



Project Highlights

- Three major projects in the Greenhaven Hub
- Virtually all work done at maximum security facilities
- Over \$8 million in project costs
- Over \$1 million in annual savings
- Energy savings exceeding guarantees

Customer Profile

The New York State Department of Correctional Services (DOCS) is responsible for the confinement and habilitation of approximately 65,000 inmates held at 70 state correctional facilities located across New York State.

Project Description

Constellation has a long history of providing customized engineering services throughout the state of New York. Our success with the DOCS began in 2001 where through the State Invest Program as facilitated by New York State Energy Research Development Authority (NYSERDA), Constellation began developing energy cost savings projects at DOCS's "Greenhaven Hub" facilities, including Green Haven, Bedford-Taconic, and Sing Sing. The success at these facilities has paved the way for projects at other facilities in the state. We have excelled in working in the corrections environment, where safety, security, and adherence to procedures are as critical as meeting deadlines and budgets. We have met the requirements tasked to us by with the Department of Correctional Services and have done so without injury or incident.

Our first project with DOCS was the Green Haven Correctional Facility in Stormville. The primary measures installed under this \$2.9 million project were the installation of a 500 HP summer boiler at the Central Plant, the commissioning of a Condensing Heat Exchanger in the boiler plant, expansion of the heating controls system and improvements to the steam distribution system. The project was completed on time and on budget.

Technical Highlights

- 500 kW combined heat and power plant
- 500 horsepower summer boiler with auxiliary equipment
- Other boiler and steam system upgrades including condensate recovery, steam traps, insulation and consolidation of steam lines
- Energy management and control system expansions at all three facilities addressing 34 buildings and over 1.5 million square feet
- Energy efficient lighting improving over 4500 fixtures



There is also a performance contracting project at the Bedford/Taconic Correctional Facilities. This \$3.4 million project implements eleven conservation measures in several facilities, with the most notable measure being the installation of a new 500 kW combined heat and power plant. The savings realized from this measure comprises over a third of the project's total annual savings of \$450,000. Other measures include condensate system improvements dramatically reducing plant make-up, #6 to #2 fuel conversion at the Central Plant, energy-efficient lighting, and enhanced boiler and HVAC controls.

Finally, there is a design/build project for the Sing Sing Correctional Facility in Ossining. The highlight of the \$2.0 million project is the expansion of the existing controls system to provide service to seventeen additional buildings that total 744,000 square feet. This system includes all valves, actuators, sensors, panels, fiber, Ethernet cabling, hubs, switches, front-end control and graphics to enable the facility to have temperature control over these buildings. Other measures include efficiency upgrades to over 2,300 light fixtures and replacing failed variable speed drives on a hot water heating system serving three buildings totaling 145,000 square feet.

In aggregate, project costs have totaled over \$8 million with total cost avoidance/energy savings projected at over \$1 million annually.

FINANCING ARRANGEMENTS

Project costs were covered by guaranteed savings through an energy savings performance contract. With the help of Constellation, NYSERDA facilitated a third party financing arrangement with GE Capital. Projects will be paid off over 14 years.

Call Us

To discover how we can put our expertise to work for you, call us today at 1-800-436-3749 (1-800-4ENERGY).

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Constellation (www.constellation.com) is a Fortune 500 company whose combined revenues in 2010 totaled \$14.3 billion.