

WHITE PLAINS PLAZA, NY

CHILLER PLANT UPGRADE

Incentive Amount:

\$840,000

Projected Annual kWh Savings:

1,800,000

Annual Cost Savings:

\$300,000



IMPROVEMENT DETAILS

- Assessed chilled and condenser water systems
- Assessed and optimized chiller plant
- Evaluated CHW system controls
- Examined variable pumping options
- Evaluated opportunities to improve the efficiency of the overall chilled water system

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GOALS AND CHALLENGES

Situated in the White Plains central business district, White Plains Plaza comprises two Class A office buildings totaling 700,000 ft² currently undergoing renovations. Willdan was retained to execute an energy study to prepare a detailed energy analysis of the central chiller plant.

Willdan conducted the energy analysis under a New York State Energy Research and Development Authority (NYSERDA) incentive program. The primary objective was to improve operating efficiency and to reduce energy costs by providing two 400-ton gas fired chillers and one 1,200-ton electric centrifugal chiller.

SOLUTIONS AND RESULTS

Willdan recommended use of a hybrid chiller plant that relied on natural gas-driven chillers and electric centrifugal chillers with variable speed motors, variable speed drives for chilled water pumping, thermal energy recovery from gas engine-driven chillers, and optimization of chiller dispatching based on real-time energy costs.



Willdan focused on solutions that were both energy efficient and cost effective.