

Cogeneration Demo/Tech Showcase for Multifamily Bu

To install six Capstone Microturbines rated at 30 kW each and six Capstone Microturbines proposed for installation at the site, and the associated cc for such installation.

BACKGROUND

Clinton Hill Apartments located in the Clinton Hill section of Brooklyn is twelve buildings with a total of 1,221 apartments. The apartment complex is divided into a north and south campus having seven and five buildings, respectively. The two campuses are separated by two city blocks. Each building is master-metered and is ten-stories tall. The entire development was originally built by the U.S. Navy to house personnel for the old Brooklyn Navy Yard and was later converted to the private housing sector, as a rental, when the Brooklyn Navy Yard was decommissioned. The heat load (space heating and domestic hot water) for each campus is supplied by three 350 HP Scotch marine boilers. Domestic hot water is supplied to each group of apartments via 500-gallon hot water storage tanks that are heated via steam from the boilers.

OBJECTIVE

A recently-completed NYSERDA-funded (PO 3812) cogeneration feasibility study evaluated the technical and economic feasibility of cogeneration at Clinton Hill Apartments, and recommended a microturbine based system.

DESCRIPTION

The project will install and demonstrate the efficiency of six 60 kilowatt and six 30 kilowatt natural gas Capstone Micro Turbines as prime movers at Clinton Hill north campus.

BENEFITS

The Capstone Micro Turbines will supply approximately 90% of Clinton Hill's north campus annual electricity needs. The recovered heat will be used in conjunction with the boiler, to supply domestic hot water for the campus. This project is expected to provide a peak load reduction of 528 KW, and save Clinton Hill Apartments \$217,200 per year in energy costs. The proposed project has the potential for improving the air emission characteristics surrounding the Clinton Hill north campus and will seek to obtain Emission Reduction Credits from the New York State Department of Environmental Conservation.

Funding	Encumb to Date	Pending	Total Anticipated
Clinton Hill Apartment Owners Corporation	\$842,600.00	\$0.00	\$842,600.00
NYSERDA	\$758,500.00	\$0.00	\$758,500.00
TOTALS	\$1,601,100.00	\$0.00	\$1,601,100.00

Manager	Borowiec, Joseph C.
Contracts	STD-7293
Contractors	Clinton Hill Apartment Owners Corporation
Technologies	Cogeneration
Cities	Brooklyn
Counties	Kings