

CRM Energy System

250 West End Avenue Condominium will demonstrate the efficiency of a CHP system with two 150kW natural gas fired

BACKGROUND

205 West End Avenue Condominium, a non-profit cooperative located in the upper west side of Manhattan is a 29 story high-rise with 540 residential units. Domestic hot water and comfort heating is provided by commercial high-pressure steam from Consolidated Edison. Domestic hot water is stored in three (3) storage tanks totaling 10,000 gallons of capacity. Electric thru-the-wall air conditioners provide comfort cooling. 205 West Avenue is master metered (2 utility electric meters). The facility's electricity consumption for 2001 was 4,081,200 kilowatt-hours, with a peak demand of 1,212 kilowatts (occurred in August).

OBJECTIVE

The project involves the installation and demonstration of a 300 kW CHP system at 205 West End Avenue by CRM Energy Systems (CRM).

DESCRIPTION

System prime movers will be two (2) natural gas Waukesha rich burn internal combustion engines. Engines will be equipped with 3-way NSCR catalysts, critical silencers and air/fuel controllers to reduce emissions. Each of the (2) 150-kW induction generators will be separated electrically, with each providing power to separate electrical services within the same building. The thermal and waste heat recover systems will be combined to provide domestic hot water and augment the use of low pressure commercial steam for heat the building. The CHP system will use CRM's proprietary "sequence of operations" to allow for automatic load-following by the system induction generators.

BENEFITS

Installation of the CHP system will reduce the demand on the electrical grid by 300 kilowatts, and save 205 West End Condominium \$322,049 annual energy costs.

Funding	Encumb to Date	Pending	Total Anticipated
CRM International, Inc.	\$354,002.00	\$0.00	\$354,002.00
NYSERDA	\$354,002.00	\$0.00	\$354,002.00
TOTALS	\$708,004.00	\$0.00	\$708,004.00

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Contracts STD-7325
Contractors CRM International, Inc.
Cities New York
Counties New York