

**RESIDENTIAL
BUILDING**

Company Name
Cabrini Terrace

Location
New York, NY
(New York County)

Installation Date
October 2012

Operating Experience
October 2012

CHP Equipment
Two Intelligen Induction
units (80kW and 55kW)

Generating Capacity
135 kW

Heat Recovery Application
Space Heating and
Domestic Hot Water

Type of Fuel
Natural Gas

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“In the wake of Hurricane Sandy, we have learned the value and importance of having clean-energy technologies like CHP in place that will keep the lights on and systems running for our residences and businesses.”

- Governor
Andrew M. Cuomo

Co-op Lowers Operating Costs and Fuel Oil Consumption with CHP System

BACKGROUND

Cabrini Terrace is a 16-story cooperative building with 217 individual apartments with a total occupancy of 438. There is also an attached, single story garage structure with an open roof. Cabrini Terrace has installed two combined heat and power (CHP) units to provide electrical power and heat for domestic hot water (DHW) for the building. The CHP units, the DHW storage tanks and heat exchanger are located in an enclosure in the parking garage.

THE APPLICATION

The CHP units include one 55kW unit and one 80kW unit. The 55kW CHP induction unit is connected in parallel with the existing electrical distribution grid.

The 80kW synchronous unit is capable of “black start” operation so that it can operate isolated from the electrical grid to supply priority electrical loads during a power outage. The system will help meet the electrical load during the peak summer load period when individual apartments are running their air conditioners.

CHP thermal output is recovered and used to preheat the DHW supply for the building and to heat the parking garage. This heat recovery reduces the demand for steam from the boiler.

CHP SYSTEM AND EQUIPMENT

The CHP system installed at Cabrini Terrace consists of two Intelligen Power Systems. The CHP DHW system connects to the building cold water supply where the potable water is pre-heated before flowing into the boiler. Two (2) unit heaters are installed in the garage to utilize the CHP thermal output to heat the garage in the winter. A heat balance radiator located on the parking garage provides “dumping” capacity for excess thermal output.



Cabrini Terrace apartments, New York City

