

Co-generation Demonstration Technology

Install CHP system with two 60 KW, Coast Intelligen c1-60, co-generation modules to provide electricity and thermal energy.

BACKGROUND

Hazel Towers, a 286 unit rental building, located in Bronx, New York has initiated an ambitious energy conservation program designed to reduce its contribution to the utility grid peak demand and to reduce its energy cost by installing a 120 kW cogeneration or combined heat and power [CHP] system. Prior to this, Hazel Towers converted to individual apartment submetering. This CHP system would provide approximately 38% of Hazel Tower's annual electric consumption, satisfy the domestic hot water heating requirement and reduce peak demand by an average 60kW, and a maximum 120 kW. The project team will include representatives from two of the largest cooperative housing associations in New York City, who will increase the likelihood of replicating this project at other member sites.

OBJECTIVE

The objective is to demonstrate the use of a CHP system to supplant a portion of the sites electric load and utilize waste heat to offset fossil fuel use produce domestic hot water.

DESCRIPTION

Install two 60 kW cogeneration modules to provide both electricity and thermal energy. Disseminate findings through use of workshops, classrooms, handbook and web sites to encourage replication at other multi-family housing developments.

BENEFITS

The project will produce 893,500 kWh of electricity [38% of total load] and utilize waste heat to supplant 60,000 therms for hot water heating requiren. The project will result in net energy cost savings of \$50,000. Economic benefits are expected from the replication of the CHP installation at other mul family sites as a result of the technology transfer workshops and training.

Funding	Encumb to Date	Pending	Total Anticipated
Herbert E. Hirschfeld, P.E.	\$250,815.00	\$0.00	\$250,815.00
NYSERDA	\$241,080.00	\$0.00	\$241,080.00
TOTALS	\$491,895.00	\$0.00	\$491,895.00

Manager	Douglas, Peter
Contracts	STD-6826
Contractors	Herbert E. Hirschfeld, P.E.
Technologies	Cogeneration
Cities	Bronx
Counties	Bronx