

Bulova Corporate Center CHP Project

Demonstrate the efficiency of a CHP system consisting of two 350 ton natural gas engine chillers designed for hot water waste recovery.

BACKGROUND

The Bulova Corporate Center is a 500,000sft commercial building located in Queens, New York. Originally, the building was constructed in 1952 as a manufacturing and corporate headquarters for the Bulova Watch Company. Recognizing the exodus of manufacturing jobs from NYC, LaGuardia Corporate Center Associates (LCCA) remodeled the building into a State-of-the-Art commercial office building housing several notable high-tech businesses. This re-development has helped NYC retain 2,500 high paying jobs. The building is expandable and working towards increasing occupancy to 3,500. This project seeks to improve the overall energy efficiency of the facility.

OBJECTIVE

The objective of this project is to demonstrate the performance of engine driven chillers, fueled with natural gas, to provide air conditioning and hot water for a commercial office park.

DESCRIPTION

The project involves the installation/demonstration of two (2) 350-ton natural gas driven chillers to satisfy the cooling needs of the facility. In this part of the project, no electricity is being produced on-site, the natural gas fired engine is used to provide the mechanical shaft power necessary to drive the chillers. LCCA, a customer of Consolidated Edison, originally intended to purchase conventional electric chillers for this application that would have required over 500 kW of peak power during the summer months. These standard electric chillers, although of lower initial cost, are less efficient than the on-site natural gas driven chillers proposed for this project. Thermal energy will be recovered from the gas driven chillers to supply heat for domestic hot water.

BENEFITS

The installation will result in lower overall site air emissions (NOx, SOx, CO, and PM), and reduce peak power demand by approximately 526 kW in Consolidated Edison's territory.

Funding	Encumb to Date	Pending	Total Anticipated
LaGuardia Corporate Center Associates LLC	\$700,000.00	\$0.00	\$700,000.00
NYSERDA	\$700,000.00	\$0.00	\$700,000.00
TOTALS	\$1,400,000.00	\$0.00	\$1,400,000.00

Manager	Torpey, Mark R.
Contracts	STD-6848
Contractors	LaGuardia Corporate Center Associates LLC
Technologies	Cogeneration
Cities	Queens
Counties	Queens