

### **Cogen Rachel Bridges (a Bootstraps Energy Project)**

Demonstrate the efficiency of a CHP system consisting of twelve 145 kW natural gas-fired packaged co-generation units, 3 per building.

#### **BACKGROUND**

The Rachel Bridges Complex is a multi-family residential complex located in Harlem, New York. This facility consists of four high-rise apartment towers built over the Cross Bronx Expressway. The complex consumes approximately 9,000,000 kWh of electricity from the local supply grid, with a peak demand of 900 kW per tower. The project is being developed under the Bootstraps Energy Initiative consisting of a team of facility and energy professionals with extensive and nationally recognized experience in the development and operations of facilities, installation and operation of co-generation installations, and energy management practices in multi-family residential facilities.

#### **OBJECTIVE**

Demonstrate a CHP system consisting of 1740 kW of electric generation for the complex with space and DHW heating. Disseminate project information through the Bootstraps initiative.

#### **DESCRIPTION**

Install twelve IPS EnginAire 145 kW natural gas-fired co-generation units, three per building. The recovered heat will be used for space and DHW heating. The co-generation system will satisfy approximately 70% of the site's thermal demand. Technology transfer will include developing internet/electronic reports, working with local/regional media, assembling an advisory board consisting of representatives from other potential users/beneficiaries of CHP, maintaining alliance with several professional affiliations through its project team members.

#### **BENEFITS**

This project will result in peak load reduction of up to 1,740 kW, reduce annual electricity usage by 6,300,000 kWh/year, and result in over \$620,000 net annual energy savings.

<b>Funding</b>	<b>Encumb to Date</b>	<b>Pending</b>	<b>Total Anticipated</b>
NYSERDA	\$1,000,000.00	\$0.00	\$1,000,000.00
Rachel Bridge Corporation	\$1,912,610.00	\$0.00	\$1,912,610.00
<b>TOTALS</b>	<b>\$2,912,610.00</b>	<b>\$0.00</b>	<b>\$2,912,610.00</b>

<b>Manager</b>	Borowiec, Joseph C.
<b>Contracts</b>	STD-6844
<b>Contractors</b>	Rachel Bridge Corporation
<b>Technologies</b>	Cogeneration
<b>Cities</b>	New York
<b>Counties</b>	Statewide, New York