

# ALL SYSTEMS COGENERATION

## 150 KW COGENERATION PLANT

### CASE STUDY

"We have reduced our purchased electricity from 2.2 million kilowatt hours to 900,000, which equates to a 59% reduction."

**A**s a Board president of a 4 building, 437 family cooperative residence in Jackson Heights New York, I am always interested in containing the costs associated with the "monsters in the basement", electricity, heating and hot water. We decided to research several different technologies; solar, wind and combined heat and power or Cogeneration. As an engineer with over 30 years experience in process control, I was keenly focused on improving efficiencies and most importantly our "return on investment".

We decided that the most viable solution for our facility was Cogeneration and the only remaining decision was to find a vendor and award a contract. I interviewed three separate vendors and explained specifically what my goals



were. All Systems Cogeneration was able to satisfy our rather demanding requirements. Our 150 Kw plant was commissioned on July 6<sup>th</sup>, 2012 and the system has exceeded our expectations as well as our initial goals. We have reduced our purchased electricity from 2.2 million kilowatt hours to 900,000, which equates to a 59%

reduction. In addition, we saw a decrease in our seasonally adjusted natural gas consumption from 32 therms/hour to 24 therms/hour. Our total **one year savings**, including all of the fuel and maintenance related expenses was an unbelievable \$186,000!

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1595 OCEAN AVENUE, SUITE A12  
BOHEMIA, NY 11716 631-750-6060

I cannot say enough about All Systems Cogeneration and their staff. They are professional, responsive and most importantly a GREAT group of people to work with. I have already recommended their company to several other cooperatives in our neighborhood-----Edward J. Ermler Board President Roosevelt Terrace Cooperatives, Inc.

**ROOSEVELT TERRACE COOPERATIVES 150 300 KW COGENERATION PLANT SPECIFICATIONS:**

**SUMMARY:** The 150 Kw cogeneration system is providing electricity, heat and hot water to 437 families. The on line availability has exceeded 94%.

<b>PLANT SIZE:</b>	<b>150Kw</b>
<b>COGEN MODULES:</b>	<b>2-75 Kw's</b>
<b>OPERATION:</b>	<b>24/7</b>
<b>THERMAL OUTPUT:</b>	<b>490,000 btuh per module</b>
<b>USABLE THERMAL ENERGY:</b>	<b>95%</b>
<b>ELECTRICAL OUTPUT:</b>	<b>75 Kw per module</b>
<b>USABLE ELECTRICAL ENERGY:</b>	<b>100%</b>
<b>SERVICE VOLTAGE:</b>	<b>120/208v</b>
<b>DOMESTIC HOT WATER STORAGE:</b>	<b>1000 gallons</b>
<b>EQUIPMENT PAYBACK:</b>	<b>2.4 years</b>

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