

## METRO ENERGY SOLUTIONS

### EAST ORANGE GENERAL HOSPITAL



**Project:** Cogeneration Plant  
**Plant Size:** 260 kilowatts  
**kWh Provided:** 1.7 Million kWh  
**East Orange Hospital Cost to Install:** \$0

Metro Energy Solutions entered into an agreement with East Orange General Hospital to build, own, operate and maintain a cogeneration power plant to displace a portion of the hospital's electricity and thermal load for energy cost savings.

The cogeneration plant incorporates (4) 75 Kilowatt engines, for a total electrical rated output of 300 kilowatts. The cogeneration system was designed to produce electric and hot water. The sizing for the cogeneration system is based primarily upon the building's average hot water requirement.

In addition to the cogeneration plant, the project included replacements of the existing (2) steam/hot water heat exchangers. The (2) hot water supplies were communized by interconnecting piping and a single, larger, common steam/hot water heat exchanger was installed in the cogeneration room. The cogeneration system has become the primary source of heating for the hot water, with the existing steam boiler plant used as a back-up.

Metro Energy financed the cogeneration plant and the other improvements so East Orange General Hospital had no capital investment in the project.

Metro Energy provides electric and thermal energy at a discounted rate of 15% off of the utility tariff under a 12 year power purchase agreement. The new cogeneration system will provide 1.7 million kWh per year for the term of the agreement and over \$340,000 in energy cost savings.

1140 Bloomfield Avenue, Suite 200,  
West Caldwell, New Jersey 07006  
Phone: (973) 439-SAVE • Fax: (973) 439-6998  
[www.metroenergysolutions.com](http://www.metroenergysolutions.com)

