

Green Innovation Grant Program

Project Title: Great Neck Water Pollution Control District
Microturbine Cogeneration Facility

Grant Recipient: Great Neck Water Pollution Control District

Location: Nassau County, NY

Green Infrastructure Practice: Energy Efficiency

EFC Grant Amount: \$750,000

Total Project Amount: \$1,337,500

GIGP ROUND **2**

Project Completed 04/2011

Project Description:

Two 65-kilowatt microturbines will be installed to generate electricity using digester gas as a fuel source at a 100-year-old wastewater treatment plant in Long Island. This project is one of several existing and proposed green initiatives at the plant that aims to minimize waste, increase use of recycled materials and conserve energy. The new generators will run on biogas, a renewable energy source which exerts a very small carbon footprint. The project is estimated to result in an annual electricity savings of \$123,370, if the turbines run at 100% efficiency.

Microturbines are an innovative, technology based on the turbo charger equipment found in jet engines, which use rotational energy to generate power. Microturbine generators are less expensive to build and operate than larger conventional gas or diesel powered generators, creating a large amount of energy relative to their size. They also pollute less and take up less space. This increased efficiency means that they use less fuel, which means fewer polluting emissions are released into the air.



Construction on microturbine generators at the Great Neck Water Pollution Control Plant on Long Island's East Shore. The project will generate electricity using digester gas and is estimated to achieve a positive payback in less than four years.

