

# microturbines

**When you consider installing a microturbine, speak with a New York State licensed professional engineer with an expertise in CHP systems.**

**Generators heat up when they produce electricity. Combined heat and power (CHP) microturbines can capture this heat and use it to regulate a building's temperature, produce electricity or heat water — saving money, reducing strain on the City's electrical grid and cutting carbon emissions.**

## Installation

CHP microturbines are typically the size of a refrigerator and can be installed on a rooftop or in a mechanical equipment room. Because they can add a substantial load to the structure and require professional installation, the Department of Buildings, Fire Department and the property's utility company must approve and/or issue permits for the project before work begins. The Rules of the City of New York, Title 1, Chapter 50 provides complete requirements regarding microturbine installation.

## Department of Buildings Requirements

As with most construction projects, the Department of Buildings requires work permits to install a microturbine. Specifically, this work must have construction, plumbing and electrical permits. DOB Rule 50-01 outlines microturbine technical requirements, and the Construction Permits and Plumbing Permits pages in our Industry Professional Tool Kit and Homeowner Tool Kit explain the permit process. Information is also available at [nyc.gov/buildings](http://nyc.gov/buildings).

Because proper maintenance is crucial, the Department also requires the property owner to have a service contract with the manufacturer or a service company that the manufacturer recommends. Maintenance contracts must be in place through the life of the microturbine.

## Fire Department Requirements

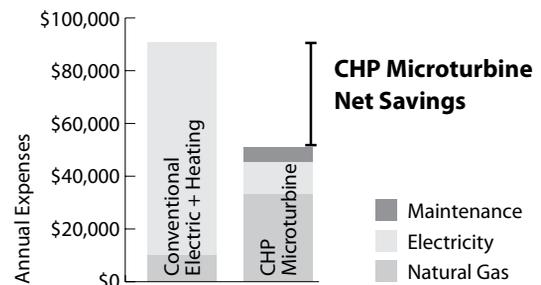
The Fire Department also regulates microturbines and has requirements to ensure their safe operation. The property owner must have a Fire Department permit to operate these generators. One individual who will be at the building during business hours must have an FDNY Certificate of Fitness, which indicates he or she is trained by the manufacturer to properly shut down the equipment in an emergency. Finally, the Fire Department must approve the fire alarm system.

## Utility Company Approval

The property owner must obtain a letter of approval from the utility company serving the building. The letter must indicate that the owner may install and operate a microturbine at the property, the system can operate on the gas network and it will produce adequate power. To request a letter of approval, property owners must consult the utility company regarding the characteristics of existing gas and electrical service to the site before installing the microturbine system. The property owner must provide the letter of approval to the Department of Buildings prior to plan approval.

## Case Study

At a 256-unit apartment complex using baseboard heaters and unit air conditioners, a microturbine would save an estimated **\$40,000** annually.



The cost to install a microturbine varies widely, and New York State offers incentive programs.