

Biogas Cogeneration Facility

Recent PWD project provides up to 85% of on-site electricity needs with green energy.

In December 2013, the Northeast Water Pollution Control Plant began generating green power. A new facility was constructed to capture methane generated from the existing wastewater treatment process. The captured biogas is fed to four internal combustion engines which can provide the plant with up to 85% of its electrical requirements. Furthermore, useful heat is recovered from the system and used for process heating needs at the plant.

How Biogas Cogeneration Works

Biogas is produced by the anaerobic decomposition of organic matter in a wastewater treatment plant's anaerobic sludge digesters. Digester biogas is treated to remove impurities before being used as fuel in large engines that generate electric power. Look on the back of this sheet for an infographic detailing the whole process at our facility.



Visitors take a look at one of the four cogen engines.



The Northeast Water Pollution Control Plant biogas cogeneration facility.

In alignment with the City's Municipal Energy Master Plan, the Philadelphia Water Department developed a Utility-Wide Strategic Energy Plan, establishing energy conservation and greenhouse gas reduction objectives for the Department.

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Here is a detailed look at the process.

