

Generator Delivery



## Combined Heat and Power and Gas Cleaning Systems Take Shape

The first of three 1.5-megawatt generators that will power the combined heat and power system at the Piscataway Bioenergy project arrived on site this fall, with the final two generators expected on site by early December.

The combined heat and power system is an integral component of the Bioenergy project. These generators will supply electricity to the Piscataway WRRF project site. The exhaust heat from the generator engines will be recovered to heat the boilers to generate steam needed for the thermal hydrolysis process. Excess heat will also be used in the medium temperature hot water loop around the site that feeds several other processes, including sidestream treatment.

The generators were fabricated in Germany and shipped to Atlanta, where they were paired with generator control

systems and outfitted with soundproof enclosures. The fully assembled enclosure with generator and controls weighed 100,000 pounds and was transported more than 600 miles on a 140-foot-long tractor-trailer to the project site. After maneuvering multiple turns through the plant roadway system and backing the truck down a winding road to reach the installation site, a 500-ton crane lifted the generator into place on its concrete pad.

This fall also saw the arrival of the gas treatment equipment on site. Crews have installed the scrubber, flash tank, stripper and hydrogen sulfide removal tanks. The remaining components will be installed this winter. This system will upgrade the gas generated in the digesters to meet renewable natural gas standards set by Washington Gas. The gas will then be injected into the pipeline and/or used onsite in the engines.



# Progress Since Last Update (Summer 2022)



Completed the pre-cast concrete UV Building



Completed the Cake Receiving Silos



Installation of the gas pipeline to the Washington Gas pipeline



Began installation of the Odor Control System

## Cake Receiving Facility



## Upcoming Work

- Install Generators 2 and 3
- Install three 5,000 lb/hr steam boilers
- Install UV reactors
- Complete installation of the Gas Treatment System
- Install Gas Storage

## PROJECT TIMELINE



### PLANNING

Completed June 2018



### DESIGN

Completed February 2020



### DEMOLITION AND UTILITY RELOCATION

Completed December 2020



### CONSTRUCTION

Underway Began June 2020



### TESTING

Spring 2022



### COMPLETION

Late 2024

## The Piscataway Bioenergy Team

Your WSSC Water Piscataway Bioenergy Team includes:



### OWNER

[www.wsscwater.com](http://www.wsscwater.com)



### DESIGN-BUILDER

[www.pcconstruction.com](http://www.pcconstruction.com)



### LEAD ENGINEER

[www.stantec.com](http://www.stantec.com)  
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### PROGRAM MANAGER

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