FACT SHEET

Converting Food Waste to Clean, Renewable Energy

WM Varick I CORe – Newtown Creek Co-Digestion Project

Converting NYC Food Waste Into a Clean, Renewable Energy Source

Food waste makes up approximately 25- 30 percent of New York City's waste stream. Recovering and recycling these organic materials for beneficial reuse is a key goal of PlaNYC, the city's long term plan for a greener, greater New York.

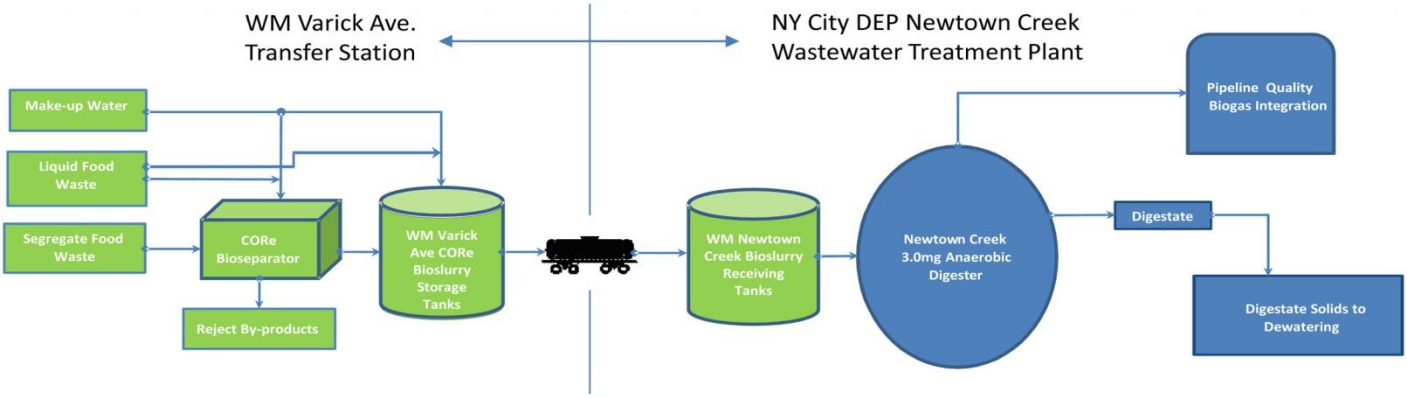
Waste Management of New York (WMNY) is partnering with the NYC Department of Environmental Protection (DEP) and the Department of Sanitation (DSNY) to operate the city's first organics recycling facility to convert food waste into a renewable energy source through co-digestion. The goals of this project are to generate insights and data needed to assess the overall effectiveness of organics recycling in diverting additional materials from the waste stream and increasing renewable energy production. This initiative is a significant step forward toward NYC's long term sustainability goals of recycling organic waste and increasing the use of renewable energy.

Project Description

Waste Management of New York will operate an organics recycling facility within its existing Varick I solid waste transfer station in Brooklyn. At this site, organic waste will be processed into an Engineered BioSlurry using WM's proprietary and patent pending Centralized Organic Recycling equipment (CORe®) process. The Engineered BioSlurry will then be delivered to DEP's Newtown Creek waste water treatment plant, where it will be added to the plant's anaerobic digestion system to increase the production of biogas (methane). Biogas can be transferred to the natural gas grid and delivered to customers for electric power generation, residential and commercial heating, and other everyday uses.

The Varick I organics recycling facility would initially process 48 tons per day of food waste. Over the course of the 3-year demonstration project, WMNY expects to ramp up processing to handle 250 tons per day of organic waste.

WM CORe System & NYC DEP Co-digestion Demonstration Project Process Flow Diagram



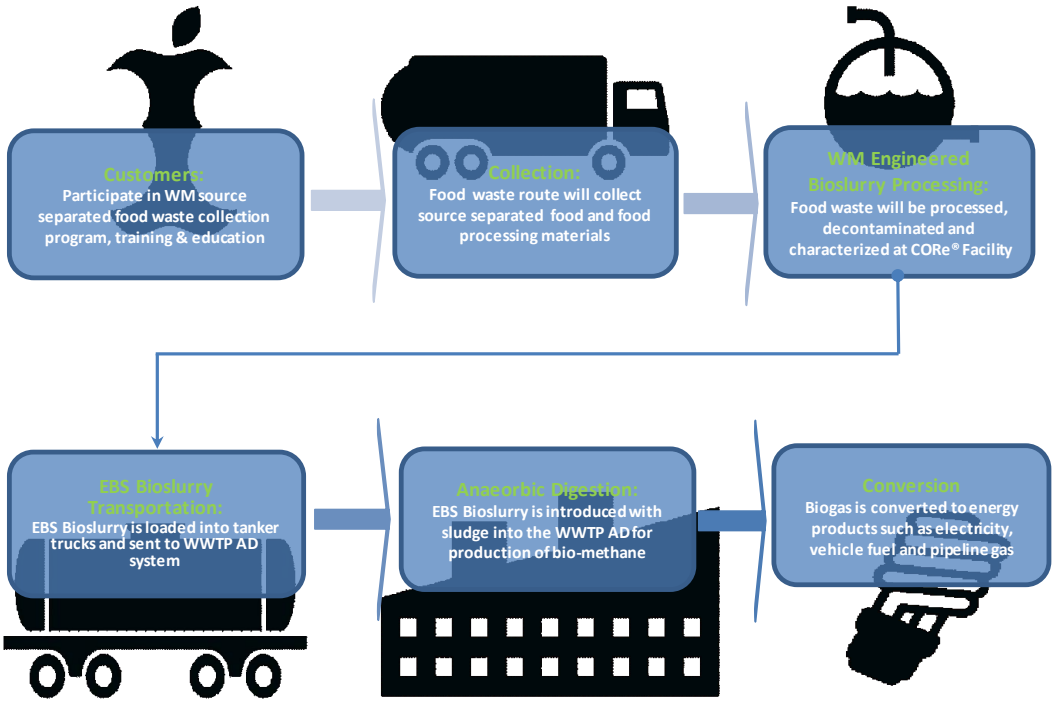
How the Process Works

THINK GREEN®

- Organics are separated from other materials at the source, e.g. individual households or businesses.
- Collection vehicles gather organics from households and businesses.
- Incoming food waste is tipped from collection vehicles within the enclosed transfer station.
- Food waste is loaded into the CORe® system's hopper/conveyor.
- Food waste is conveyed into a bioseparator, which separates organic source material from inorganic waste (such as plastic, packaging, etc.)
- Food waste is liquefied within the bioseparator and then passed through a screen creating a fluidized feedstock.
- The feedstock settles into the collection hopper below the bioseparator and is then pumped into a blending storage tank to produce an Engineered BioSlurry.
- The Engineered BioSlurry is transported via tanker truck to the waste water treatment plant.
- Engineered BioSlurry is added to anaerobic digesters to increase biogas production.
- Biogas is collected and used in the plant's boilers for building and process needs. DEP and National Grid are partnering to develop a project that would transfer residual digester gas to the natural gas grid.

Converting Organic Waste to a Renewable Energy Source Via the CORe Process

The WM proprietary CORe® system takes a combination of pre- and post-consumer food wastes and produces a high quality organics product designed for co-digestion in municipal anaerobic digesters. The system uses custom-built food waste processing equipment that can remove non-degradable contaminants from source-separated food waste streams at high efficiency. The remaining organic material is then blended into a consistent, high-energy Engineered BioSlurry. When added to anaerobic digesters, the Engineered BioSlurry significantly enhances biogas production.



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