Identifying Existing Digesters and Sources of Industrial Food Waste for Anaerobic Digestion

Client
Genesee Biogas, LLC. (Genesee Biogas) has licensed a unique anaerobic digestion process, capable of utilizing 100% food waste as input and producing energy, vehicle fuel and class-A bio-solid products and is in the process of siting a digester and bringing it online in Batavia’s Genesee Valley Agri-Business Park.

Opportunity Areas
The goal for Genesee Biogas is to design, build, own and operate a cost effective AD system in Genesee County, diverting organic waste away from other disposal methods and towards anaerobic digestion and the production of renewable energy. In support of this potential new AD technology siting in Genesee County, Genesee Biogas requested support through NYSP2I’s Green Technology Accelerator Center (GTAC) to perform a study to identify the availability of food waste sources in the surrounding area, to the extent the information is publicly available. This study will further be used by Genesee Biogas to confirm organic material availability and optimize the location of the new AD system.

Objectives
The goal of the project was to identify and map, within a 60 mile radius of Batavia, NY, existing digesters and food waste sources (such as food processors, restaurants, hospitals, colleges and universities) and estimates of waste generated, to the extent the information was publicly available.

Work Performed
NYSP2I further analyzed and refined data under the GTAC program, utilizing publicly available information, building on previously completed research completed by NYSP2I. The data was summarized and maps were created, identifying the locations of existing digesters and food waste sources within a 60 mile radius of the Agri-Business Park in Batavia, NY.

Results
- In total, 123 food processors (having greater than 5 employees and annual sales greater than $1,000,000) were identified within the study area. These included companies from the winery industry, animal slaughtering, chocolate manufacturing, soft drink manufacturing, commercial bakeries and breweries.
- A total of 59 supermarkets and convenience stores (having greater than 5 employees and annual sales greater than $1,000,000) were found in the study area. These 59 stores are estimated to generate 16,785 metric tons/year of food waste.
- Genesee Biogas is forecasting the creation of 6 jobs over the next 3 years in support of this new anaerobic digestion technology implementation in Batavia, NY.