ANAEROBIC DIGESTION

The Community Digester: A Collaborative Solution for Perry, NY
Old Acres Farm and Formso Landfill Perry, NY

OBJECTIVES

Develop a biowaste treatment facility with power generation that is:

1. Owned and operated by a community-based cooperative business;
2. Provides manure treatment services to multiple farms within the community;
3. Creates new jobs for Perry and the surrounding area in Wyoming County; and
4. Controls the odor and reduces the pathogens in manure applied to cropland.

DESCRIPTION OF SYSTEM

A GBU hydraulic-mix digester and treatment facility will be built on land owned by Formso Landfill. This digester is specifically designed to commingle manure and food waste, and has successfully treated multiple biowaste feedstocks in Europe. The addition of food waste will increase the production of biogas and the profitability of the business. Initially, the digester will be able to handle the manure from 3,000 cows, expandable to ~5,000 cows.

The business model envisions processing the manure from multiple farms. The transportation of manure and the operation of the facilities will be performed by the newly created community-based cooperative business. This will allow the farmers to concentrate on farming, rather than worry about managing the digester. Separate combined heat and power plants are planned for both the Formso Landfill site and Old Acres Farm. Electricity and/or biogas sales to the utility are proposed.

OUTCOME

The project develops a stand-alone biowaste treatment facility that is self sufficient, owned-operated by a community based cooperative, provides treatment services to multiple farms and creates new jobs for the Perry and the surrounding communities in the area. The new technology will mitigate the environmental and community concerns about confined animal feeding operations in the Perry area, improve the quality of life in the community, produce new electric and natural gas resources, create new jobs in the community, and serve as a model for other communities facing similar challenges.

Project Sponsors: NYSERDA, ECO Technology Solutions, Bioenergy Cooperative of Perry, Old Acres Farm and Formso Landfill

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“The Bioenergy Coop. of Perry will be the first community-owned cooperative producing renewable energy by processing manure from multiple farms.”

- Kamyar Zadeh, ECO Technology Solutions