



Green Innovation Grant Program (GIGP) No. 33
CWSRF Project No. C7-9105-01-70
Cayuga County Soil & Water Conservation District
Project Name: Cayuga County Regional Digester

DEC Region: 7 County: Cayuga

Type of Financing: American Recovery and Reinvestment Act (ARRA) Green Innovation Grant Program

Estimated Total Project Cost: \$9,501,189.15

Recommended GIGP Award Amount: \$6,277,801.00

Local Share: \$1,499,999.06

Other Funding Sources: \$1,723,389.09

Project Category: Clean Water SRF. Environmental Innovation.

Project Description:

The Cayuga County Regional Digester-Bioenergy Facility includes an anaerobic digester that will process local manure and agricultural and food waste, a biogas/methane generation and handling system and a combined heat and power (CHP) plant that will utilize the biogas from the digester.

Project Summary:

This innovative regional demonstration project includes several green energy and environmental benefits. The facility is estimated to produce 5,401,000 kilowatt hours (kWh) of electricity annually, about half of which will be used to power the "District Campus" with any unused power being sold to the grid. Located in the Town of Sennett, City of Auburn, the District Campus is adjacent to the Cayuga County Soil and Water Conservation District (SWCD) offices and the project. The campus is home to several government agencies including the Army Corps of Engineers, the Farm Service Agency, Cayuga County Water & Sewer Authority, and a Board of Cooperative Education Services (BOCES) facility, and is adjacent to the County Jail and 911 Service Center. The project will also produce an estimated 22,300 million British thermal units (MMBTus) of energy annually from the cogeneration units. Approximately 38% will be used for digester facility processes and the balance (~62%) will be available for use by the campus or sold to other local customers.

As a demonstration project, the SWCD will help test and promote regional anaerobic digesters suitable for agricultural upstate New York areas. In addition to green energy production, the benefits include turning a waste stream to feedstock and the use of process byproducts (e.g. pathogen-free liquid fertilizer, compost, etc.) by local farms, the SWCD green house, or for sale. Anaerobic digestion of manure and agricultural waste will help avoid pollution of ground and surface water, reduce nutrient overloading and runoff, and reduce the potential for pathogens to be released into the environment. The digesters also help reduce air pollution and reduce the uncontrolled emission of greenhouse gas (methane) from manure.

This project is categorically eligible for GIGP financing in two categories per the United States Environmental Protection Agency's (EPA's) "Guidance for Award of Recovery Act Funding to State Revolving Funds" and subsequent guidance dated March 2, 2009:

1. Environmental Innovation. Categorically eligible projects "manage water resources in a more sustainable way, including projects that achieve pollution prevention or pollutant removal with reduced costs and projects that foster adaptation of water protection programs and practices to climate change." The EPA Guidance provides example III. g.: "projects that facilitate adaptation of clean water programs and practices to climate change" (pages 45-46). The use of manure to produce biogas removes potential pollutants from the

watershed and reduces reliance of a Section 212 facility on fossil fuels and mitigates the climate change impacts of that facility.

2. Energy efficiency. Installation of the anaerobic digester is categorically eligible per EPA's Guidance (page 44) particularly for example IV. c. "producing clean power for 212 treatment works on site...(biogas powered ..heat) (page 44).

Construction (site preparation) began in 2006 and work has been initiated for certain portions of the project. The GIGP would fund components that have not yet been initiated including the digester vessel, biogas systems, the CHP/energy station, process control systems, electrical interconnection and related infrastructure.

This project is located in Cayuga County which is designated as an economically distressed area.

Funding Summary:

Total project costs of \$1.25M are being supported through co-funding from NYSERDA (\$900,000), USEPA (\$2,900), USDA Rural Development (\$319,000), NYS Department of Agriculture and Markets (\$6,000), and the Department of Energy (\$475,750). GIGP funding will help ensure project completion.

SEQR Findings:

The Corporation has determined that the proposed GIGP grant will finance a project that will not have a significant adverse effect on the environment: (1) the DEC has certified that this project is a categorical exclusion from SERP pursuant to section 319 of the Clean Water Act and in compliance with SEQR; (2) no potentially large environmental impacts have been identified; and (3) the Cayuga County Soil and Water Conservation District, acting as lead agency, has issued a negative declaration.

Construction Schedule:

<u>Description</u>	<u>Construction Start</u>	<u>Construction Completion</u>
Cayuga County Soil & Water Conservation District	February 21, 2010	September 30, 2011
Cayuga County Regional Digester		