

## Community Renewable Energy Cooperative - CHP

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### Background

ECO, FORMSO, and Old Acres Farm will collaborate to develop and implement a "Community Renewable Energy Cooperative". The ultimate goal of the project is the creation of a multi-site CHP project linked to the utilization of a low cost renewable fuel supply from a centralized community manure and food-waste digester system at FORMSO Landfill. The facility will utilize the abundant waste feedstock resources around the area to produce fuel needed to operate two separate CHP systems. The Community Renewable Energy Cooperative project is the result of a feasibility study initiated by Old Acres Farm and FORMSO Landfill under NYSERDA agricultural innovation funding.

### Objective/Scope

Install, commission, operate, monitor, and provide technology transfer regarding a CHP system consisting of a community digester and 814 kW of CI FORMSO Landfill, and 110 kW of Stirling engine-based CHP in the adjacent Old Acres Farm fueled by a dedicated gas distribution system connected to the digester. An integrated hydraulic mix digester of German design will be used. This is the first application of this type of digester in North America. Byproduct heat will be used to warm the digester; for DHW and dairy process hot water; and to produce pathogen-free soil amendment and liquid fertilizer products.

### Benefits

This project will provide new installed capacity of 924 kW and peak-load reduction of 110 kW. It will also demonstrate the community digester concept, the use of a hydraulic mix digester using both animal and food processing wastes; and the use of a Stirling engine with biogas.

<b>Funding</b>	<b>Encumb to Date</b>	<b>Pending</b>	<b>Total Anticipated</b>
ECO Technology Solutions, LLC	\$2,415,171.00	\$0.00	\$2,415,171.00
NYSERDA	\$1,000,000.00	\$0.00	\$1,000,000.00
<b>TOTALS</b>	<b>\$3,415,171.00</b>	<b>\$0.00</b>	<b>\$3,415,171.00</b>

<b>Manager</b>	Kear, Edward
<b>Contracts</b>	STD-7863
<b>Contractors</b>	ECO Technology Solutions, LLC
<b>Technologies</b>	Agriculture, Biomass Technologies, Cogeneration, Composting
<b>Cities</b>	Perry
<b>Counties</b>	Wyoming