

Gibson, Kreher Poultry, and Windstott



Farm Audits

Schodack Landing, Clarence, and Genoa, New York

Background

The New York State Energy Research and Development Authority (NYSERDA) can help any type of farm become more energy efficient and aid in reducing operating costs. NYSERDA, in conjunction with specialized engineering consultants, conducted an analysis of several energy efficiency opportunities at three separate New York farms. A common goal of these three projects was to identify cost-effective means of improving energy efficiency on each farm to reduce energy costs.

Recommendations and Results

Gibson Farm, in Schodack Landing, Rensselaer County, produces corn products, and grows hay and oats. The study performed by Landsberg Engineering, P.C. focused on installing new grain drying equipment.

Kreher Poultry Farm, located in Clarence, Erie County, has 600,000 egg-laying hens. C.J. Brown Energy Engineering & Architecture recommended replacing the existing outdated refrigeration system to increase capacity as well as installing new refrigeration heat recovery equipment.

Windstott Farm, a dairy farm in Genoa, Cayuga County, was inspected by engineers from DLtech, Inc. The conclusion of the study suggested that the farm install adjustable frequency drives on its vacuum pumps and install a well-water-cooled heat exchanger to pre-cool milk.

Coinciding with these recommended measures, each of the three studies also suggested the farms replace their current lighting with more energy-efficient lighting. To improve energy efficiency on the farms, NYSERDA and the engineering consultants recommended the following measures:

<i>Recommended Measures</i>	<i>Gibson Farm</i>	<i>Kreher Poultry Farm</i>	<i>Windstott Farm</i>
<i>Conservation Measure(s):</i>	<i>New Grain-Drying Equipment</i>	<i>Refrigeration System w/ Heat Recovery Equipment</i>	<i>Frequency Drives & Heat Exchanger</i>
<i>Cost of Recommended Measures:</i>	<i>\$43,615</i>	<i>\$69,000</i>	<i>\$9,000</i>
<i>Energy Savings:</i>	<i>\$12,250/year</i>	<i>\$19,000/year</i>	<i>\$3,050/year</i>
<i>Payback Period:</i>	<i>3.6 years</i>	<i>3.7 years</i>	<i>3 years</i>

New York Energy \$martSM

All **New York Energy \$martSM** programs are funded by a System Benefits Charge (SBC) paid by electric distribution customers of Central Hudson, Con Edison, NYSEG, Niagara Mohawk, Orange and Rockland, and Rochester Gas and Electric. NYSERDA, a public benefit corporation established by law in 1975, administers SBC funds and programs under an agreement with the Public Service Commission.

New York Energy \$martSM programs are designed to lower electricity costs by encouraging energy efficiency as the State's electric utilities move to competition. The programs are available to electric distribution customers (residential, commercial, institutional, and industrial) who pay into the SBC.

"Our new heat recovery grain dryer system has reduced our labor, electrical, and propane costs significantly. Our neighbors are happy when their lights don't dim as before when we turn on the new system."

Mike Ellers
Gibson Farm

