Allied Frozen Storage Combined Cycle Power Generation

Installation of two (2) natural gas reciprocating engines rated at 1,2500 kW each with heat recovery for absorption chilling refrigeration. Facility stores over $100,000,000 of frozen goods.

BACKGROUND

Most modern frozen food storage and processing facilities employ electric cooling equipment as the means to provide the required climatic conditions where temperatures below zero degrees Fahrenheit are commonly required. Electricity cost is the largest component of operating cost, and reliable electric supply is critical. The host site for this project, Allied Frozen Storage of Brockport, New York,is representative of frozen food storage facilities found throughout New York State. The site consists of a cluster of three storage facilities owned by Allied Frozen Storage, and one processing facilit owned by one of their customers, Birdseye Foods. Together, these four facilities employ 345 people and provide over 14 million cubic feet of frozen storage area.

OBJECTIVE

Through this project, Sweden Industrial Center II, LLC, of Brockport, New York (a management company which is related to Allied Frozen Storage), t Prime Contractor, shall install and demonstrate the efficiency of a combined heat and power (CHP) system at Allied Frozen Storage which will provid electric power, process refrigeration, under slab-floor heating (to prevent ground frost heaves), and domestic hot water from a single combustion syst thereby reducing the cost of electric bills, conserving energy, and reducing air pollution. The CHP System shall be grid-connected in the electric serv territory of Niagara Mohawk Power Corp., and shall also have emergency backup generation capability which will enable the facility to generate elect power if a grid power failure occurs.

DESCRIPTION

This project will install 2,500 kW of new CHP and 1,250 kW of new emergency backup generation. A new absorption chiller will be installed to conve exhaust heat into refrigeration as a replacement of the existing 150 kW electrically-driven chillers.

BENEFITS

Technology transfer and publicity will emphasize wide dissemination of the project results. This project is forecasted to provide peak load reduction o approximately 2,650 kW, and operate at energy efficiencies which exceed 65 percent year round. Once project economics and technology applicatio have been proven, there will be opportunities to replicate this technology at other facilities owned by Allied Frozen Storage in Buffalo and West Sene New York, and elsewhere.

Funding	Encumb to Date	Pending	Total Anticipated
NYSERDA	$0.00	$980,000.00	$980,000.00
Sweden Industrial Center II, LLC	$0.00	$2,765,089.00	$2,765,089.00
TOTALS	**$0.00**	**$3,745,089.00**	**$3,745,089.00**

Manager	Levy, Dana
Contracts	STD-7855A
Contractors	Sweden Industrial Center II, LLC
Cities	Brockport
Counties	Monroe