

Allied Frozen Storage, Inc.

Combined Heat and
Power Project at
Brockport, N.Y.

Brockport Campus



Allied Frozen Storage Brockport Campus

- Located on Seventy Acres
- Three Buildings each with an Ammonia Refrigeration System using Mechanical Refrigeration
- Over 500,000 sq.ft. of Refrigerated Space
- The Rest of the Space is Ambient Storage
- Located at the end of the NIMO Transmission System, RG&E Area Starts

The Problems

- High Cost of Energy in New York State
- Reliability of the Grid in the Brockport Area
- Competition Locally and Out of State
- Conversion to Paperless Technology
- Need to Have Control of Future Costs
- Make site more attractive to potential tenants
- We have frozen, cooler and ambient space available

The Initial Solution

- Install Our Own Generators
- Zero consumption from the grid
- No Utility Charges
- Free of Grid Related Problems
- Clean Power for Our Computers and Compressors
- The Cost of Operation is in Our Hands

The Problems with this Solution

- Generators are Very Expensive to Purchase and Install
- Unless by-product heat is recovered, they are Not Very Efficient
- Power In vs. Power Out
- Add In Operation and Maintenance Costs
- Pay Back is Too Long for a Viable Project

The Answer

CHP

- NYSERDA Funding Helps Reduce Total Cost
- Improve Efficiency by Utilizing Almost all of the Waste Heat
- Ammonia Absorption Refrigeration Provides Year Round Cooling for Freezers
- Secondary Waste Heat Provides Under Floor and Space Heating
- Operate CHP Plant to Maximize Profitability, Co-Gen On Peak, purchase discount power Off Peak
- After Commissioning Use in House Staff for Routine Maintenance

Combined Heat & Power Plant

- Two 1.3 Meg Natural Gas Generators
- One 1.15 Meg Diesel Generator
- 180 Ton Ammonia Absorption Refrigeration System
- Switchgear
- Computer Monitoring & Control System

Cat 3516 Natural Gas Genset



Ammonia Absorption Refrigeration



Diesel Generator Enclosure

