SUSTAINABILITY AND ENERGY SAVINGS

Improved Sustainability Efforts Led to Massive Cost Savings

INDUSTRY

FOOD & BEVERAGE

APPLICATION

DAIRY ICE CREAM MANUFACTURING PLANT

SOLUTIONS

// DETAILED HOURLY ENERGY MODELING
// AUTOMATED ENERGY EFFICIENCY MEASURES
// ADVANCED REFRIGERATION CONTROL STRATEGIES

BENEFITS

// REDUCED DIRECT GREENHOUSE GAS (GHG) EMISSIONS
// REDUCED ONSITE ENERGY CONSUMPTION
// IMPROVED SUSTAINABILITY AND RELIABILITY OF FUTURE OPERATING COSTS

THE CHALLENGE

Humboldt Creamery is proud of its sustainable, zero-waste initiatives to reduce the footprint of its manufacturing process. The Creamery is always looking to explore ways to bring its customers organic dairy products made in the most responsible way.

The creamery employs about 100 people and manufactures fluid and powdered milk, as well as ice cream. Humboldt Creamery was looking to increase the plant's sustainability efforts, as well as increase performance and energy savings from their refrigeration system.

VaCom Technologies

THE SOLUTION

Humboldt Creamery started working with VaCom Technologies three years ago at the encouragement of the local utility who had seen firsthand VaCom's effective and impressive work. Their first project started as an upgrade to their refrigeration on their controls system. VaCom assisted the facility in applying for a utility incentive program which helped cover a significant amount of project costs, as well as drive energy savings.

Following implementation, two years of performance monitoring was performed using VaCom's EnergyDashboard service. During this time, energy and refrigeration engineers from VaCom fine-tuned the system to achieve and maintain the expected savings.

THE RESULTS

According to the Mike Callihan, Humboldt Creamery's Plant Manager, "VaCom is a very capable company. Their Energy Dashboard is helpful at identifying issues with the system. The team is responsive and available." They have saved about **1,100,000 kWh per year** since implementation (Normalized to 2017 Production). That equates to roughly **$150,000 per year**, or **$450,000** over the past three years.

Their sustainability and energy efficiency efforts have totaled over **250 Metric tons of CO2 emissions reduction**. This collective effort lead to the facility being awarded a persistence utility incentive after the two years of improved performance. The facility has continued to participate in performance monitoring, leading to maintained energy savings and identification of future projects to improve the plant's performance.