Goose Creek Refrigeration Energy Study

Pilot: November 2018 - January 2019 | Still Operating: 2025

Commercial walk-in freezers run 24/7, consuming large amounts of energy through inefficient compressor cycling, excessive defrost cycles, and outdated equipment.

For facilities managing significant food inventory, optimizing this infrastructure creates operational and financial value.

Goose Creek School District, operating cafeterias with systems that hold over $150,000 in food, wanted to improve refrigeration performance and reduce operational costs.

The district conducted an eight week study at Cedar Bayou Junior High School, collecting four weeks of baseline data before they installed the ArtikControl™ WIF Controller with two-speed EC motors in November, 2018, and monitoring performance for four weeks post installation.

Pilot Results: Immediate and Sustained Value

Performance Area	% Reduction	Financial & Operational Impact
Energy Costs	67.80%	Cost dropped an average of $46.84 to $15.08 per week.
Energy Savings	67.45%	1,951.84 kWh per week
Defrost Time	68.05%	Massive reduction in heating element run time.
Fan Motors	75.12%	Optimized operation with efficient EC motors.
Compressor Cycling	31.59%	Achieved through intelligent, reduced cycling.
ROI	18 Months	Time to completely pay for the system installation.
Food Loss Risk	Zero Incidents	Since installation (due to 24-hour monitoring).

After installation, the system delivered **67.45% energy reduction** and **67.80% cost reduction**. The system paid for itself in 18 months and continues to be in use in 2025.

The district has had no food loss. Beyond immediate cost reduction, reduced compressor run times extend the lifespan of equipment, delaying expensive capital replacements. For those who manage school cafeterias, the math is simple: each walk-in freezer represents an opportunity for substantial, ongoing savings. Multi-location installations multiply savings.

Click here to schedule an energy savings assessment.