

VERIFIED RESULTS · REFRIGERATED DISTRIBUTION CENTER

Patented capital equipment cut refrigeration energy
26.5% at a refrigerated distribution center.

Validated by ON/OFF metering. Sub-12-month payback. Zero cold-chain disruption.

Table with 4 columns: 26.5% REFRIGERATION REDUCTION, 112,432 KWH ANNUALIZED, 66,335kg CO2 ABATED/YR, ~11mo PROJECTED PAYBACK

SOLUTION
Patented enPact Refrigeration & Cooling optimization. Installed across all 5 cold rooms and 3 freezer systems. Reduces compressor runtime (80–90% of refrigeration energy) via superheat-based control and stabilizes setpoints without modifying site operations.
List of 6 bullet points: Reduce compressor runtime and cycling, Regulate refrigerant flow via superheat control, Increase latent cooling efficiency, Maintain setpoint temperatures without modification, Verified via smart kWh meters + M&V (Univers platform)

CHALLENGE
A national food distribution center with a large refrigerated warehouse faced rising energy consumption. Refrigeration represented the majority of the site's electrical usage. Key constraints:
List of 5 bullet points: Freezers operating at 68.5 kW each; cold rooms 15–19 kW, 25% seasonal uplift during warmer months, Transparent, M&V-validated savings required before wider rollout, Sub-12-month payback required for investment approval, No option for cold-chain disruption

Results.
Whole-warehouse refrigeration savings.
Measured over 34 days (Feb–Mar) using ON/OFF comparison windows. Full-year figure adjusts for the 25% summer uplift documented onsite.
List of 7 bullet points: 26.5% total reduction in refrigeration energy usage, 219+ kWh/day saved across freezer rooms alone, 58 kWh/day saved across cold rooms, 101,126 kWh saved on measured pilot basis, 112,432 kWh full-year (seasonally adjusted), Sub-12-month payback achieved
VERIFIED METRICS table: Technology (enPact R&C), Refrigeration reduction (26.5%), Annualized savings (112,432 kWh), CO2 abated (66,335 kg/yr), Trial duration (34 days (Feb–Mar)), Payback (~11 months)

Measurement & verification. All equipment monitored via smart kWh meters feeding the Univers platform. Winter measurement was seasonally adjusted upward using the site's documented 25% summer refrigeration uplift to produce the full-year 112,432 kWh figure. No refrigerant, setpoint, or workflow changes were made during the trial.

CONCLUSION
enPact Refrigeration & Cooling delivered a validated 26.5% reduction across a large refrigerated warehouse, ~11-month payback, and material CO2 abatement — with zero cold-chain disruption.

ESTATE ROLLOUT PROJECTION
Applied across 340 similar sites: 34.4M kWh/yr savings, 7,119 tons CO2/yr abated, ~12-month portfolio payback.