



AMERICAN DEVELOPMENT  
INSTITUTE

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## US Cold Storage Distribution Facility La Vergne, TN



### SUMMARY

ADI Energy was selected by The US Cold Storage to evaluate several cold storage facility for energy upgrades and implement an optimization project at its location in La Vergne, TN. The project comprised twenty-six VFD retrofits on existing compressors, condensers and evaporators, as well as a control software upgrade and integration of the new VFDs with the existing refrigeration control system.

Energy Efficiency Food Industry

**Annual Savings: \$120,000**  
(17% of total site load)

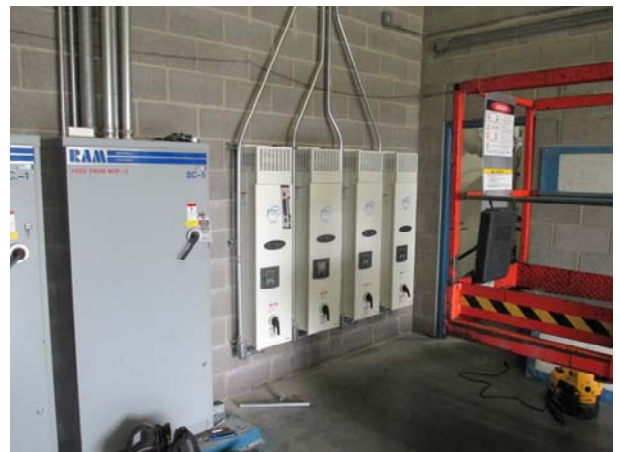
**Annual Savings: 1,140,000 kWh**

### UNIQUE VALUE TO CUSTOMER

US Cold Storage partnered with ADI under a unique contracting vehicle to implement recommendation that grew from an initial period of analysis. The La Vergne project included variable frequency drives (VFDs) on evaporator and condenser fan motors, and a two large ammonia compressors, as well as integration of all installed equipment with the plants existing control system. A software upgrade allowed the existing control hardware (provided by M&M Controls) to fully optimize the new VFDs.

ADI was able to provide a very cost-effective solution by mounting VFDs to reduce wiring and installation costs.

ADI managed project construction in a unique collaboration with local trades people, trusted by USCS and familiar with existing systems at the site.



### SERVICES

- Design/build services
- Industry energy services
- Energy engineering
- Start-up and commissioning
- Energy savings analysis
- Energy reductions

### MEASURES

- Refrigeration Controls Upgrade
- Compressor, Evaporator and Condenser VFDs
- Controls Integration & Programming
- System Tuning and Follow-On Evaluation