

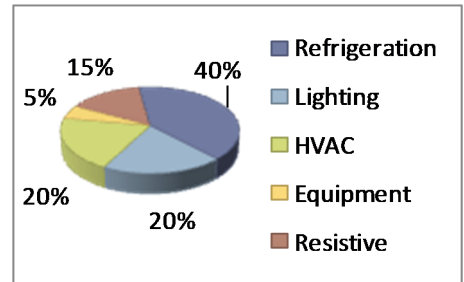
**Typical savings: 17–25% | Typical Payback: <24 mos.**

Grocery retail and distribution is energy intensive, with refrigeration typically accounting for at least 40% of all electricity use.

Magnitude System's Intelligent Power Optimization™ system dramatically reduces energy use while providing essential information so management can identify waste, implement an energy policy and measure effectiveness.

Our impact on refrigeration loads is particularly dramatic. Our technologies are used by industry leaders such as Kraft, Campbell's and Sysco Foods.

### Typical electricity use by load



## Intelligent Power Optimization™—iPOS™

Magnitude's systems approach is the custom integration of hardware to optimize power distribution and system performance with web-based software that provides utility usage intelligence.

### Key benefits:

- **Reduce overall electricity use by 15–25%**
- **Saves money when equipment is ON –not by shutting it off**
- **Cost savings guaranteed by performance bond**
- Know where, when and how you are using energy
- Improved power quality improves equipment performance and extended life

## Power Optimization

Power Optimization is a combination of hardware technologies embedded in your facility that reduces energy use by either improving power quality, thus reducing resistance and distribution line loss, or optimizing equipment performance. We have a particularly dramatic impact on refrigeration due to multiple technologies we deploy:

- Distributed synchronized capacitance
- Harmonic mitigation
- Molecular-level temperature modulation
- Molecular boundary lubricant
- Liquid pressure amplification
- LED-based intelligent lighting systems
- Ultra high efficiency ECM fans
- Intelligent cycling controllers
- Voltage regulation
- AC sine-wave modification

## Magnitude Information System™—MIS

*If it isn't measured, it can't be managed*

The Magnitude Information System™ is a simple yet powerful web-based management tool that gathers and analyzes all utility data (electric, water, gas, steam, temperature, etc.) to transform that data into actionable intelligence, customized for the audience. The MIS saves money under multiple layers, the most obvious being system optimization (settings, scheduling & run-time) and behavioral change: giving management the ability to establish and enforce an energy policy.

## Success Story:

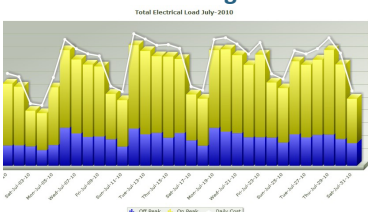


### Grocery Chain

- Annual energy spend: \$417,933
- Primary use: refrigeration (40%)
- Savings by load:
  - Refrigeration: 20%
  - Lighting: 15%
  - HVAC: 20%
  - Equipment: 12%

**Total Savings: \$91,946/yr**  
**Lifetime Savings: \$1,838,911**  
**Simple Payback: 30 months**

### Demand Management



### Carbon Tracking



### Customized Dashboards



### Public Education



