

Building Performance with ENERGY STAR®: Early Experience

Matthew Matenaer

Focus on Energy - Program History

- Wisconsin's statewide program for energy efficiency and renewable energy
- 11 year history of running programs
- Nearly 97% of Wisconsin residents and businesses are eligible for program offerings
- More than 91,000 businesses and 1.7 million residents have participated
- More than 3,000 trade allies have partnered



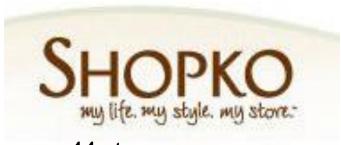
Building Performance with ENERGY STAR Program Participants

KOHĽS

39 stores 3.6 million sq ft



14 stores1.5 million sq ft



44 stores 4 million sq ft

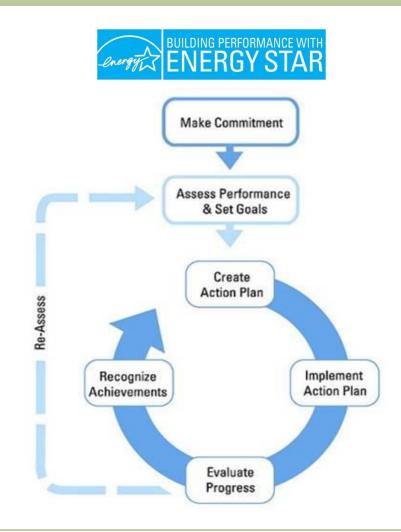


12 stores 665,000 sq ft



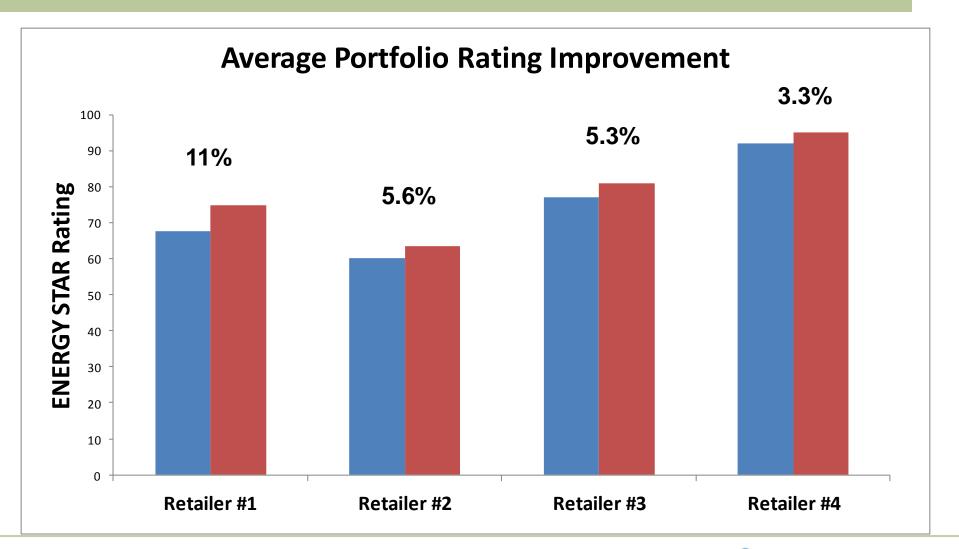
Program Elements

- Benchmarking
- Action plan development
- Whole-building performance assessment/upgrades
- Performance monitoring and verification



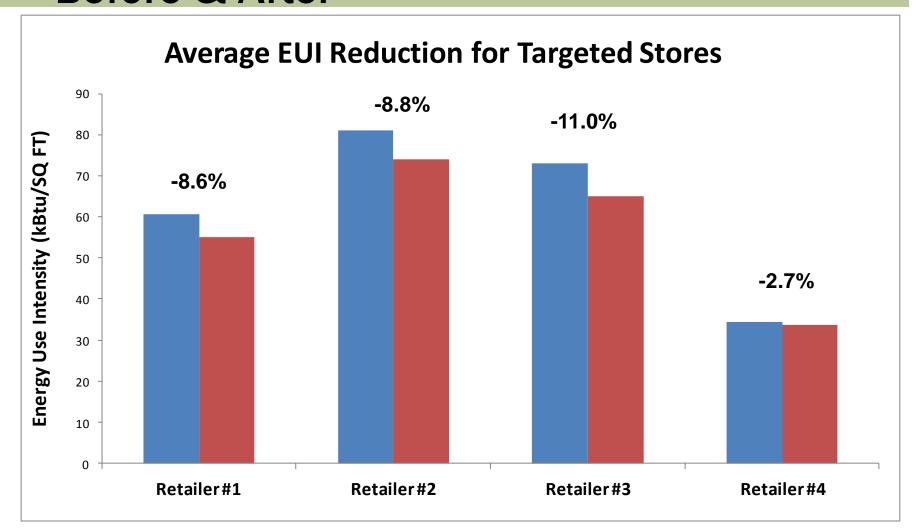


Benchmark Comparisons – Before & After





Energy Usage Intensity Comparisons – Before & After





Retailer #1 - Highlights

- Energy & monetary savings achieved annually:
 - 147.8 kW
 - 856,791 kWh
 - **\$85,000**
- Key measures implemented:
 - High bay fluorescent fixtures replacing HID
 - Reduced wattage T8 lamps
 - High performance T8 systems



Retailer #2 - Highlights

- Energy & monetary savings achieved annually:
 - 119 kW
 - 786,448 kWh
 - **-** \$79,000
- Key measures implemented:
 - Variable speed air compressor
 - High performance T8 systems



Retailer #3 - Highlights

- Energy & monetary savings achieved annually:
 - 126.8 kW
 - 2,177,135 kWh
 - **\$220,000**
- Key measures implemented:
 - High performance T8 systems
 - Variable frequency drives on RTUs
 - High Efficiency Low Glare Fixtures
 - Disabled de-humidification cooling reset
 - Shut down cash registers/computers at night



Retailer #4 - Highlights

- Energy & monetary savings achieved annually:
 - 392.7 kW
 - 1,671,211 kWh
 - 8,368 therms
 - **\$170,000**
- Key measures implemented:
 - Skylighting/Daylighting controls
 - Energy management systems
 - Vending misers
 - Re-commission economizer settings
 - Recalibration of outdoor air sensors



Customer Spotlight – Blain Supply

- O&M energy savings of almost \$4,000 per store
- Achieved nearly \$140,000 in energy savings across
 13 stores
- Implemented portfoliowide approach to O&M strategies based on discoveries from assessments







Future Program Integration

- Model for account managed commercial customers
- Added value benefit tool for large franchises
- Focus on Energy Chain Stores & Franchises Program





Discussion

