

CASE STUDY

Sysco Program: The First Three Years

PROGRAM BACKGROUND

In late 2005, Sysco's Real Estate and Construction Department, at the request of Chief Operating Officer Ken Spitler, embarked on an aggressive efficiency initiative to reduce distribution center electrical energy intensity (kWh/ft³) by 25% over a three-year period. Sysco contracted Cascade Energy Engineering to help it meet this goal. Cascade, under the direction of

Sysco Real Estate and Construction, spearheaded the design, rollout, and administration of a new energy management program. This successful program has not been a single-site effort, but rather a multifaceted, company-wide approach to energy management and efficiency. To say the program has achieved its goals is an understatement. After three years,

Sysco's companywide electrical energy intensity is down **28.9%** over the 2005 baseline (as of July 2009).



Sysco Edmonton's new facility has an energy intensity 57% lower than its previous facility

PROGRAM IMPLEMENTATION

The program officially began April 1, 2006, with a three-pronged approach. First, a **web-based energy management system** was developed. This system tracks monthly utility bills and web-based



adjustments made during on-site facility tune-ups usually lead to immediate savings

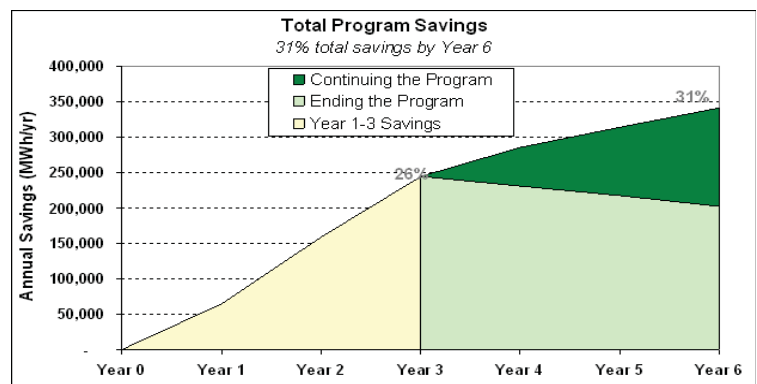
real-time metering for all Sysco facilities. The system benchmarks every Sysco site with normalized *efficiency factors*, allowing facilities to be fairly compared, by region or by size, regardless of space makeup or average weather conditions. It also provides monthly reports on status and improvement. With these tools, Sysco accurately tracks companywide progress and provides motivation for continuous improvement. The second component of the program

included **facility tune-ups**. Cascade sent an engineer and experienced technician to each site for 3 - 5 days of aggressive review and tuning ("Kaizen Blitz"), including refrigeration, lighting, HVAC, doors, and other energy-using systems. Implemented changes are documented in a tune-up report, and recommended improvements are posted as action items on the energy management site. Sysco empowers site staff to implement

the items in a timely manner. The local refrigeration contractor, controls firm, electrical contractor, and HVAC contractor are often deeply involved in this process. Finally, Sysco has integrated energy efficiency into all **retrofit, expansion,**

and new construction projects.

Cascade reviewed the corporate bid specifications, and a standard suite of energy-efficiency alternates are now requested on all new construction projects. Sysco's Construction Department has played a key part in rolling out this component of the program. Cascade and Sysco's project management team work together to ensure implementation of the best and most cost-effective technology at existing and new Sysco facilities.



"It was important that we hire a firm with appropriate skills, reputation, and experience. Cascade fit the bill perfectly, and we look forward to a successful energy management plan that targets 25% savings over the first three years."

- D. Michael Downs, Senior Director Engineering Services, Sysco Corporation

ENERGY CHAMPION



the energy champion's effort is one of the key components of Sysco's program

Each Sysco site has an individual tasked as the "Energy Champion." This person is responsible for monitoring facility energy usage and being the driver behind savings efforts - their work is invaluable to Sysco's program. The energy champion's tasks are facilitated by the energy

management tools, which provide easy access to utility histories, real-time meter data, benchmarking, and action-item tracking. These tools provide continuous feedback on program savings while identifying backsliding or unusual trends in usage so they can be promptly addressed.

TECHNOLOGY REVIEW

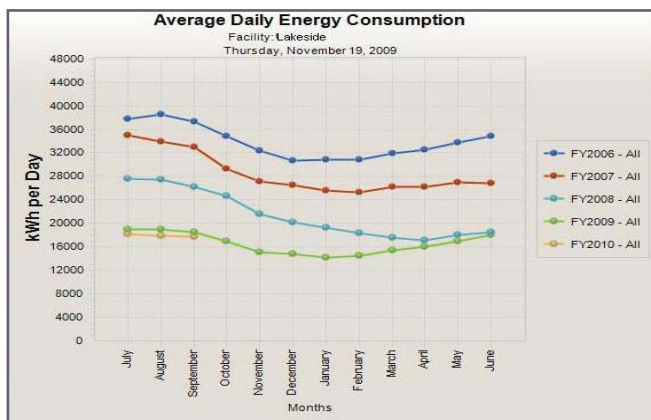
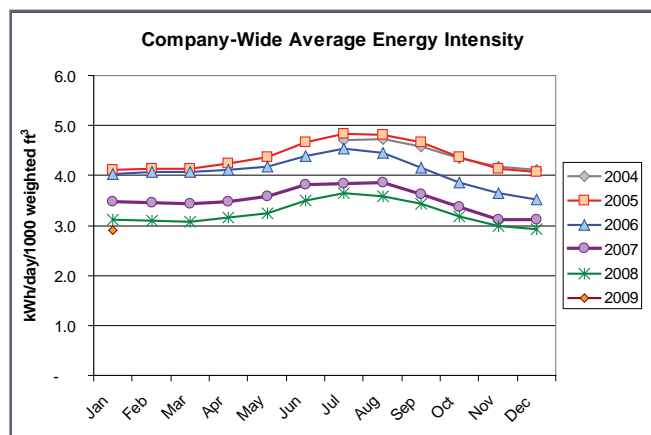
Sysco regularly initiates reviews of new technology that is marketed to them, resulting in extensive research on warehouse doors, battery chargers, lighting, and other energy-using systems. They rely on Cascade for accurate, objective assessment of technology. Sysco also engages third-party experts to review long-term utility contracts, and provide training, technical papers, and presentation material to their staff.



variable frequency drives (VFDs) allow evaporator, compressor, and condenser motors to vary speed to match refrigeration loads

KEYS TO SUCCESS

Clearly, Sysco's corporate energy management program relies on a broad team, including site personnel, corporate staff, vendors, and contractors. Their energy management approach integrates and empowers each of these parties to contribute. The program allows the team to see immediate results and respond promptly to backsliding or other performance issues. Bringing together the right team of experts - that rare mix of technical expertise and real-world experience - to develop and manage the energy program has been key to the ongoing success of Sysco's program.



total energy intensity has dropped 28.5% since the 2005 baseline period

WEEKLY ENERGY TRACKING EXAMPLE

