

Green Light for Savings

Staples' energy policy is good for business and good for the environment

By Marianne Wilson

Staples, one of the nation's leading retailers, is also one of its most energy-efficient. The chain's leading-edge position in energy conservation and environmental awareness is the result of a commitment that starts at the top and permeates all facets of the business. From upper management to distribution-center employees, to suppliers and consultants, everyone is fully engaged and active in the program.

"Staples demonstrates that a commitment to the environment is a positive, sustainable and competitive business model, one that improves business value to the benefit of shareholders, employees and customers," says Stuart Brodsky, national program manager, commercial property markets of Energy Star, a government-backed partnership that helps businesses protect the environment through superior energy efficiency.

Staples' energy policy is rooted in its commitment to protect natural resources through sustainable business practices. This commitment covers four major areas: the purchase and promotion of products containing post-consumer recycled materials, energy conservation and renewable-power procurement, recycling initiatives, and environmental education to build awareness among associates and consumers.

"All of our efforts are focused within this framework," says Bob Valair, director of energy and environmental management, Staples, Framingham, Mass.



An extensive lighting retrofit will result in an annual 6 million watts reduction for Staples.

More than many other companies, environmental awareness is ingrained into the fabric of Staples.

"It's part of our culture, part of who we are," Valair says. "It permeates our home office and extends across all our business units and distribution network."

Staples' ongoing energy-awareness program ensures that energy-conservation and environmental issues remain top of mind for all associates. It's a comprehensive effort that includes internal newsletters, posters, financial incentives and even a character mascot named SERG (which stands for Staples Energy & Recycling Guru).

Staples has determined that energy conservation is not only

Store of the Future

Staples opened its first "green store" prototype in 2003, in East Wareham, Mass. It was built from the ground up to be as energy efficient as possible, starting with the materials used in its construction.

"We tried to utilize every conceivable energy-efficient technology in this one location," says Bob Valair, director of energy and environmental manage-

ment, Staples, Framingham, Mass.

The East Wareham prototype includes Staples' standard energy-efficient equipment, such as high-efficiency HVAC units and energy-management controls. It also features these added enhancements:

- * Wall insulation on the interior block wall (as opposed to being within the block), resulting in an

R-19 rating vs. the standard R-7

- * Fly ash in the concrete
- * White roof
- * Skylights
- * T-8 single-lamp fixtures with dimmable ballasts (work in conjunction with skylights)
- * High-efficiency pulse-start parking-lot lights
- * LED signage
- * CO₂ sensors on HVAC units
- * Dual-pane glass for exterior

windows

- * Back-room motion sensors

Staples is tracking the performance of all the components used in the store.

"It's going to take us one to two years to fully evaluate everything," Valair says. "But we will be closely monitoring it."



good for the environment, but also good for its bottom line. Various initiatives undertaken by the chain have resulted in significant savings, according to Valair, and helped drive down the cost of business.

“Energy is our competitive advantage,” Valair says.

The chain uses a variety of methods to track the progress, validity and financial impact (both to its business and the environment) of projects it undertakes.

“It’s important to quantify results on projects,” Valair says.

Planning: Energy planning is carefully integrated into Staples’ organizational model. The chain’s energy team, in place for many years, develops strategies for each component of energy management on an annual basis. Staples conducts bi-annual strategic energy-planning meetings at which time all aspects of its energy program are addressed and future goals are set.

“We bring in the entire energy team for the meetings,” Valair says, “which encompasses about 30 people. It’s made up of individuals from inside the company as well as outside.”

The internal team members include energy staff associates as well as representatives from operations, marketing, corporate and other departments. External team members include energy consultants and key suppliers, such as Novar Controls and Lennox. The meetings are crucial in ensuring the support and buy-in of the team members and making sure everyone is on the same page.

“In addition to the bi-annual meetings, we have monthly conference calls that typically involve about 70% of the full team,” Valair adds. “We keep it open for everyone because it’s important to know what the team members are doing. We also let the retail stores know how they are doing month to month from an energy standpoint.”

Equipment: Staples has been proactive in working with suppliers to ensure that its facilities are outfitted with the most energy-efficient equipment. Its purchasing agents include energy-usage projections in their life-cycle cost analysis.

Lighting efficiency is a major priority. In 2003, the chain retrofitted 647 stores from a two-lamp, T-8 fixture (32 watts per lamp) to a single lamp, T-8 fixture (30 watts per lamp). Two-lamp fixtures were left around the perimeter to highlight focal points and promotional areas.

“We wanted to maintain a higher light level around the perimeter,” Valair explains.

Approximately 130 additional locations will be retrofitted to the new lighting this year.

“Although our footcandle level dropped a bit, it doesn’t appear that way to the customer or average associate,” Valair adds. “We went from an SP 35 to an SP 41, which gave us more blue lumens. To the naked eye, the store looks brighter than it actually is.”

The lighting upgrade will result in a 6 million watts reduction annually.

“It has made a huge impact on our bottom line,” Valair adds.

Staples utilizes other energy-saving equipment in its stores, from energy-management controls (Novar) to high-efficiency HVAC units (Lennox). LED exit signs are standard. Newer locations have heat-reflecting roofing systems that provide R-22 insulation. In California, 119 locations are outfitted with special technology that allows them to participate in an energy-demand-reduction program.

“Within 30-minutes notice, we can drop each store in California by 30 kW for a window of time,” Valair says. “It’s all done automatically.”

Staples’ energy-saving efforts extend to its distribution centers. Featured technologies include skylights (with daylight controls), energy-management controls (from Novar, Honeywell and TAC), micro-turbine generators, LED exit signs and fluorescent T-8 lighting with motion sensors.

“We’ve converted a few facilities to the new T-5 lighting,” Valair says, “which has resulted in an improved quality of light for our associates.”

The chain has a comprehensive preventive-maintenance program in place to ensure all its equipment runs efficiently, resulting in maximum performance, reduced repair costs and extended life.

“We have a capital-replacement program for aging stores,” Valair adds.

Staples has saved more than \$5 million during the past two years in reduced energy costs due to commodity contracts and utilities-management initiatives with the assistance of Coleman/Hines. The company is part of Staples’ commodity team.

Going forward, Staples will continue to work with its suppliers to push the envelope on new technologies to reduce energy consumption.

“This is something that is very important to us and is supported by everyone in the organization,” Valair says. ■

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Green Power

Staples joined the EPA's Green Power Partnership Program in 2002, with a commitment to purchase 2% of its total energy load from green or renewable power sources by the end of 2003. The chain made good on its promise and then some. Currently, renewable power accounts for 10% of the chain's total annual U.S. electricity consumption, making it the largest purchaser of green power in retail. It is committed to buying more than 46 million kilowatt hours of green power annually.

“Staples’ purchase is among the top 10 green-power commitments nationwide,” says Matt Clouse, director of the EPA's Green Power Partnership, a voluntary alliance between the EPA and organizations interested in buying green power. The EPA estimates that Staples’ green-power purchase is the equivalent of preventing 63 million lbs. of carbon-dioxide emissions—a key greenhouse gas—from entering the earth’s atmosphere.

“We made a commitment to purchase green power and the company embraced it,” says Bob Valair, director of energy and environmental management, Staples, Framingham, Mass.

Staples pays a premium for renewable power, Valair says, but it’s well worth it. “It’s not a burden by any means,” he adds. “The environmental benefits are such that we feel this is something we really need to do.”