Sustainability Best Practices for Energy & Efficiency in Retail

By Dan Sharplin, CEO, Site Controls

The word "green" holds a lot of clout for improving a company's brand image these days—but retailers haven't always been quick to adopt green business practices, because they have often been associated with higher costs. Especially in today's tough retail environment, paying extra to recycle or use wind power just doesn't make the cut for many chain retailers. On the other hand, it is also evident that this is truly the age of environmental conservation. The $17 billion venture capital investment and $230 billion in annual "green" sales have established this not as a fad, but as the future.

Until recently, many retailers viewed sustainability as an unwieldy, expensive project that *would* be nice to undertake—if they had the time and money to do so. The long-term benefits and branding sounded nice, but without a translation into real savings in the short term when retailers need it the most, sustainability wasn't a top priority.

Now, with new innovations in energy management technology, sustainability and savings have come together at last. Just imagine a single solution that cuts operating costs, provides additional revenue streams, and builds your brand and customer satisfaction—all while keeping corporate, environmental, and social sustainability at the forefront of your activities. That is exactly what the new generation of energy management systems (EMS) is providing to some of the savviest and most successful brands in the retail industry.

Instead of focusing on how to brand their companies as "green," more and more retailers are turning their focus to real sustainability, finding ways to balance and sustain the business enterprise while also improving the environment. Thankfully, data[1] shows that there are growing links between the two:

- 87 percent of Fortune 1000 CEOs believe sustainability is important to a company's profits
- 73 percent of CEOs believe sustainability results in cost savings
- 90 percent of the U.S. population says it is important for companies to be mindful of their impact on the environment and society
- 46 percent of consumers say they would shop at a retailer more if it was environmentally friendly
- 47 percent of consumers say they would pay more for environmentally friendly services, products, or brands

[1] Data obtained from research by American Express, Davos, Deloitte, Maritz Research, Price Waterhouse Coopers

The Effect of EMS on Energy Efficiency

Intelligent Energy Management Systems use technology (on-site equipment and "above-site" operational intelligence) to permanently reduce your energy consumption while maintaining consistent standards for customer comfort. Web-based EMS solutions give retailers the ability to centrally monitor, in real-time, each and every store in the retail chain via a hosted data center – whether a retailer has 5 sites or 5,000 sites. Next-generation EMS tools can also provide retailers with enterprise-wide monitoring capabilities that allow them to access data from any web-enabled device, including PDAs and iPhones.

Times are tough for retailers today, and too many technology implementations are very lengthy, intrusive, and costly— leading many retailers to put off all projects that aren't completely necessary and urgent. Retailers can still take advantage of intelligent EMS solutions through highly manageable service agreements in which facilities automation equipment, software, services and support are combined into a single monthly service fee that is paid for through hard energy cost savings. This model helps to improve budgeting and forecasting, frees up investment capital for other uses, and adds to the retailer's bottom line while reducing their carbon footprint.

Today's on-demand EMS solutions can result in a 15 - 25 percent reduction in energy consumption across an entire retail chain. In addition to the inherent cost savings on the monthly energy bill, there is also measurable carbon emissions avoidance from the decrease in total energy usage. For example, a large mid-sized chain retailer with 300 locations (each averaging 25,000 square feet) can enjoy an average annual energy savings per location of $16,453 – or $4,935,938 across the entire chain. For the same mid-sized retailer with 300 stores, the same reductions in energy usage that save nearly $5 million per year have an environmental impact of reducing carbon emissions by 58,471,875 pounds each year, or the equivalent of:

- 5,085 cars off the road each year
- 3,562 households powered for one year
- 87,708 trees planted each year

This isn't greenwashing, either – it is authentic sustainability that can be easily achieved with chain-wide energy management solutions.

Demand Response and the Need for Load Management

In addition to saving energy and working toward sustainability, retailers are beginning to look to web-based technologies to participate in Demand Response programs with utilities. It is widely recognized that the U.S. electric grid is constrained and is causing serious reliability issues with our electricity supply. This is evidenced by the alarming frequency of widespread blackouts our nation has experienced in recent years. Unfortunately, electricity supply has not kept pace with demand. Funding for the building of new traditional generation and transmission facilities has been significantly limited, whereas demand continues to grow unabated.

The premise behind Demand Response for chain retailers is simple: utilities desperately need their customers to cut back on energy consumption during critical periods, and they're willing to pay them to do it. Utilities will call a Demand Response "event" when the electrical grid reaches a crisis point – for example, when too many air conditioners are churning on a hot summer day.

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The good news for retailers is that they can get paid by the utility for participating in Demand Response programs.

Intelligent Load Management
To successfully capitalize on the economic and environmental benefits from Demand Response, forward-thinking retailers are deploying "Intelligent Load Management" (ILM) technologies integrated seamlessly with their energy management systems. These automated, verifiable solutions eliminate the need for manual participation within the facility. Additionally, ILM allows chain retailers to participate in automated demand response programs which are valued more highly by utilities and as a result, generate higher incentive payments.

Communicating Energy Efficiency Efforts
Retailers often overlook the importance of communication in maximizing the value of their energy management program. But a sustained communication effort can reap significant ongoing, incremental benefits year after year – both internally and externally.

Internal : Employee Communication
Studies show that employees prefer to work for companies that are environmentally conscious. This is particularly true with younger workers, who comprise a large percentage of the retail workforce. Regularly publicizing the environmental impact of energy management efforts can positively impact how employees feel about working for your company, enhancing retention. For example, a retailer could spotlight energy reduction initiatives in internal employee newsletters, comparing the savings to equivalent number of trees planted or cars removed from the road. *(For this and other calculations, visit www.site-controls.com/calculator.php.)*

Additionally, if employees believe that their company truly cares about sustainability, they are more likely to exhibit sustainable behaviors on the job, further enhancing the impact on the retailer's carbon footprint and bottom line.

External: Green Branding
Today's consumers want to know that the corporations they do business with operate in an environmentally-friendly manner – and they often reward sustainability with their pocketbooks. 46 percent of consumers say they would shop at a retailer more if it was environmentally friendly, while 47 percent say they would pay more for environmentally friendly services, products or brands.

Many retailers report that their purchased utilities (electricity and gas) account for 85 percent of their total carbon footprint. EMS implementations can deliver chain-wide energy reductions of 20 percent or more, reducing the company's carbon footprint by 17 percent or more.

Given the substantial environmental impact of energy management, combined with the high degree of consumer interest, leading retailers are actively publicizing their energy management initiatives. Public relations strategies include in-store signage, customer newsletters, press releases, case studies, mentions within the sustainability section of the corporate web page, and even a paragraph in the annual report. The branding benefits can be substantial, while the incremental investment is incredibly low.

Translating Sustainability into Savings

For many businesses in the United States with diverse geographic locations (such as chain retailers), the energy consumed in these facilities represents 80 - 85 percent of their entire carbon footprint. Reducing energy usage across their chain through intelligent energy management can therefore have a larger impact on reducing their carbon footprint than any other green initiative – all while delivering a 50 – 70 percent return on investment.

As energy consumption and costs in the US continue spiraling upward, new innovations in energy management technologies provide real solutions that allow retailers to regain control—of both their energy bills and their impact on the environment. EMS can help you optimally leverage your company's energy and set your business on the path to real sustainability and cost savings.

While it's not always easy going *and staying* green, intelligent energy management technologies are proof that retailers can establish real, measurable sustainability programs that also have a positive effect on their bottom line—debunking the myth that sustainability and savings are mutually exclusive. These programs are significantly lowering energy costs for retailers, as well as reducing the carbon footprint for an environmental impact that will extend well beyond the brand building opportunities of today into sustainability for the future.

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