



Energy, Hold the Cost

Arby's sees 11 percent reduction in energy expenses

by CRAIG GUILLLOT

Retailers spend nearly \$20 billion annually on energy expenses, according to the U.S. Environmental Protection Agency. Trimming just a little off monthly utility bills can have a big impact: Reducing energy costs by 10 percent can boost an average full-line discount retailer's net profit margins by as much as 1.6 percent and sales per square foot by \$25.

While big-box retailers have long had complex solutions to reduce energy consumption, it can be challenging for smaller retailers to aggregate analytics and institute energy savings measures across hundreds or even thousands of stores.

Like many companies, Arby's has been looking for ways to minimize energy consumption and reduce expenses. Frank Inoa, senior director of operations engineering, says that while footprints are relatively small, with 944 company-owned restaurants and 2,398 franchised locations "it does not take much of an initial sacrifice to make an impact."

Utilities are Arby's third-

largest controllable expense behind food and labor, and Inoa says the company's commitment to energy savings is about being good stewards of the environment as well as saving money.

"Any savings related to this spend provides many other avenues for us to put that money to use," he says. "Reinvesting in larger energy initiatives is one way."

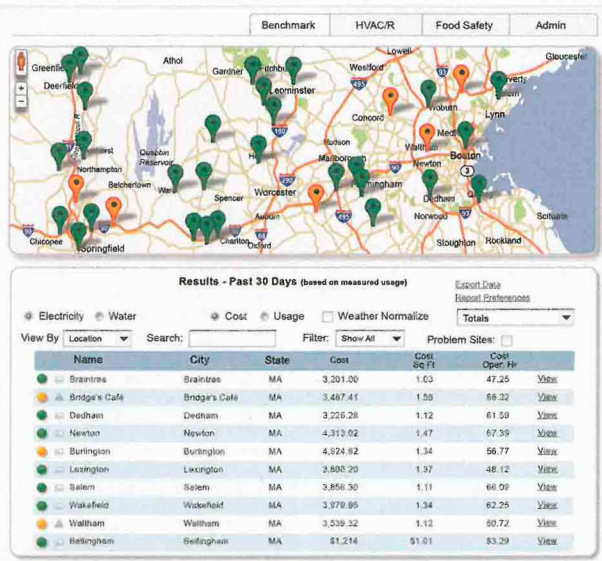
SPECIALIZED ANALYSIS

Heating and air conditioning consumes between 35 and 50 percent of electricity in a typical Arby's store;

walk-in refrigeration, which needs to run at full capacity 24 hours per day, also weighs heavily on expenses. The company has begun to address all areas of electricity spending through various means and started shifting toward more energy efficiency in 2011, enlisting the help of Ecova, a utility and energy management company that provides accurate data and advice on improving efficiency and lowering expenses.

George Huettel, director of solution engineering with Ecova, says traditional energy management systems are not the right fit for facilities under 10,000 square feet. Fast food restaurants and retail chains whose stores have smaller footprints require a different type of analysis. Arby's entered into an extensive data management consulting arrangement with Ecova to help the restaurant understand how to improve energy and maintenance operations along with asset management.

"When you look at QSRs, small retailers or other small-footprint facilities, the



spend on a relative basis is low at each site,” Huettel says. “But when you aggregate that across the entire portfolio it can be a large number.”

Ecova worked with energy monitoring firm Powerhouse Dynamics, utilizing its SiteSage asset management platform. Jay Fiske, Powerhouse vice president of strategy and operations, says the companies’ services complemented each other: Ecova offers advanced data analysis and energy consumption expertise, while Powerhouse offers sensors, equipment and the cloud platform to gather the data.

“It’s a good combination,” he says. “We started working with Arby’s and were able to help them wrap their arms around energy and take it from an uncontrollable expense to a controllable expense.”

MAKING CHANGES

Initially, Ecova would strip bills

down to individual entries to provide visibility into cost and energy structure. Huettel says it offered clients a large database of information to stack up against peers in the industry and help them identify inefficiencies. With a large pool, he says data can be “normalized” to square footage and weather to know exactly how a space should be performing in energy usage.

By bringing on Powerhouse Dynamics, Ecova was able expand its data and monitoring of energy usage and also obtain visibility into energy-related assets. SiteSage works in conjunction with Powerhouse Dynamics’ wireless, controllable thermostats for HVAC systems, sensors and equipment-level energy monitoring devices. All data and controls are run through a cloud-based analytics engine that can be accessed via laptop, tablet and smartphone. Fiske says it offers a secure, scalable, wireless architecture

that offers rapid installation and integration of multiple components.

The program started in late 2012 and was reviewed for the course of that year and the next. An incremental deployment let Arby’s identify cost structure for energy upgrades and make the improvements that had the greatest impact. A one-store pilot grew to 23 stores, and after finding a model and system that worked, Arby’s quickly expanded to all company-owned stores.

“Arby’s was very aggressive in their schedule,” Huettel says. “They were really good in expanding to all company-owned stores in a relatively short period of time.”

Iona says the system allows Arby’s to monitor various locations within restaurants — HVAC, walk-in coolers, internal lighting, exterior lighting, even water — to see where the energy is going. The company just expanded

a smart irrigation control pilot in 85 high-consuming restaurants that can save millions of gallons of water annually, amounting to thousands of dollars.

The system also has sensors and monitors to support more effective asset management. Temperature sensors in the walk-in coolers and monitors on the HVAC rooftop units can monitor the life of the equipment and better predict maintenance and replacement costs. A SiteSage app allows technicians to capture images of units and report the status of coils, evidence of corrosion, leaks or other issues.

“So now, if you have a budget to replace 300 of your 3,000 rooftop units this year, you can make an informed decision about which ones to replace,” Fiske says. “You can sort and quickly understand how to spend your dollars in the best places.”

INCREMENTAL IMPROVEMENTS

Inoa says none of the initiatives could have been successful without a strong cultural foundation and plan, starting with developing an energy policy and energy savings target to aim for and measure against.

Arby’s then took a series of small steps that included reducing the hot water heater temperatures and installing low-flow spray valves on all pre-rinse sinks and aerators on all public hand sink faucets. Other investments included installing more energy efficient motors in walk-in evaporators and vinyl strip curtains on walk-in doors; the biggest investment was in converting lighting to a more energy efficient form. Inoa says they used additional savings to reinvest in more programs.

“The successful deployment and savings experience from the initial programs gave us the opportunity to deploy

other larger programs as well,” he says.

Some of the most recent programs have included converting neon banding and parking lot lighting to LEDs and upgrading outdated low-efficiency rooftop HVAC units to high-efficiency units.

Iona says the efforts have resulted in 11 percent total energy reduction per company-owned restaurants since the baseline year of 2011. That success has paved the way to reach the company’s goal of 15 percent energy reduction by the end of 2015, he says. As a participant in the U.S. Department of Energy’s Better Buildings Challenge, the company has extended its goal to make all company-owned restaurants 20 percent more efficient by 2020. **STORES**

Craig Guillot is based in New Orleans and writes about retail, real estate, business and personal finance. Read more of his work at www.craigguillot.com.