



From the Inside Out

Jeff Dover

See the Light

Embrace new energy-management technology and techniques to save on your bottom line

Energy management in restaurants presents great opportunities to save money in energy, labor and materials. Most chains and independent restaurants have policies and procedures in place to reduce energy consumption, but there is always room for improvement. This article will briefly present several areas of potential savings through energy management.

Restaurant Lighting

Lighting in restaurants accounts for up to 20 percent of total energy consumed. One of the easiest and relatively cheapest energy-management techniques to consider is installing LED or CFL lighting in the majority of store fixtures. They can be used for the front of house, back of house and exterior. Switching to LED from traditional lighting can reduce the energy consumption up to 75 percent and help to lower HVAC costs by reducing heat output.

Thanks to advances made over the past few years, LED lighting has become the preferred choice in many restaurants. LED bulbs' lighting levels, color renditions and reduced initial cost have proven that they are the most economical way to light both the inside and outside of any restaurant facility. They can be used in cans, pendants, menu boards, exit and exterior signage, wall packs, parking lots, emergency signs and any other general lighting needs. Some local power companies, especially in California, offer rebates based on kilowatt-per-hour usage. Make sure to check with your local power companies for rebate opportunities prior to purchasing.

Parking lot lighting offers a tremendous payback due to the high energy usage and bulb replacement costs, especially when labor and a bucket truck are needed. Lighting companies now even make LED replacement retrofit kits for only the pole head change. Since power is reduced with LED lighting, existing electrical can also be used. LED lighting also decreases replacement costs, because the life of an LED bulb is approximately 10 years. Motion detectors also can be leveraged to save additional energy, enabling restaurants to save power during unoccupied periods.

To learn more about these energy-saving opportunities and for additional energy initiatives with lighting, consult with one of RFMA's many lighting supply companies. They will perform a complete facility survey in order to understand your unique needs, then provide a full-cost estimate and simple return-on-investment information. This will provide great justification with your internal finance department.

Programmable Thermostats

Programmable thermostats are another item to consider. Affordable and easy to install, they can be programmed for proper temperature settings throughout the day and night to save utility dollars during unoccupied times.

Occupied temperature settings should be 74 to 76 degrees for cooling (summer) and 70 to 73 degrees for heating (winter). Have Operations and your local contractor periodically check for proper temperature and night setback settings. Consult with your local RFMA HVAC contractor to find the right programmable thermostat for your restaurant. Ensure the thermostat has an override capability so managers can adjust temperatures for a set amount of time. Some thermostats have a 60-, 120- or 180-minute pre-set override function, while others can be programmed for any amount of time.

Some thermostats can be programmed and monitored remotely. Certain models even send alarms via email or text message when temperatures exceed a given range or programming is needed. Be sure to define the person

responsible for these issues to ensure cost-savings are achieved.

Start-Up Time Stickers

Common sense plays a huge role in energy management. Cooking equipment, along with exhaust and make-up air fans, should be off until they are needed. Too often, this equipment is turned on first thing in the morning, even though they are not needed for several hours.

Simple start-up time stickers, placed on each piece of cooking equipment, exhaust and make-up air fan, instruct employees when to turn the devices on and off, saving untold amounts of energy. The start-up time for each device is normally 10 to 15 minutes before it is needed, but each piece should be tested to find how long it takes to reach the desired temperature. Additionally, some equipment can be turned off or down during the slower parts of the day. Train employees to treat the equipment as if they were at their homes. If you were grilling at home, would you turn on the grill at 3 p.m. if it wasn't needed until 6 p.m.? Of course not.

Do you have other tips or success stories about conserving energy? I'd love to hear them! Call me at (972) 805-0905, extension 3, or email jeff@rfmaonline.com.

Dover and out.

Jeff Dover's facilities career started in 1985. He has been employed by several major chains (Ponderosa, Steak & Ale, Bennigan's, TGI Friday's, Fuddruckers and recently Five Guys Burgers and Fries). His technical education enabled him to take the lead as Energy Manager, Facilities Manager and Director of Facilities at the various brands.

OTHER CONSIDERATIONS

For additional energy-management techniques, consider these devices and systems:

-Water heating: Save hot water by ensuring that the dishwasher is only running full racks. Set water temperatures to proper settings: hand washing at 110 degrees, dishwasher's final rinse at 140 for low temperatures and 180 for high. Consider switching to low temperatures and using a chemical sanitizer rather than 180-degree water. Wherever possible, use gas rather than electricity for the final rinse on high-temperature dishwashers.

-Kitchen exhaust fans: Consider installing a two-speed blower motor on exhaust fans so they can be slowed down during the slower periods of the day. This will save additional energy by reducing the total building A/C and heating load.

-Exterior door sweeps: Ensure all exterior doors have sweeps installed to minimize outside air from entering the building. These will also keep pests out.

-Strip curtains on the walk-in cooler and freezer: This is an easy one. These keep costly conditioned air inside the coolers and freezers while the doors remain open for product pulls and deliveries.

-Electric air curtains: Install one above the back door, and only turn it on when the door is open. This will keep conditioned air inside the store during product deliveries and trash removal.

-Refrigeration gaskets: Inspect, clean and replace all gaskets on walk-ins, uprights and reach-in units as needed.

- Preventive maintenance: Ensure preventive maintenance is completed properly and on time for all equipment.