



Energy Conservation Green Seal™ Guide for Restaurants and Food Services

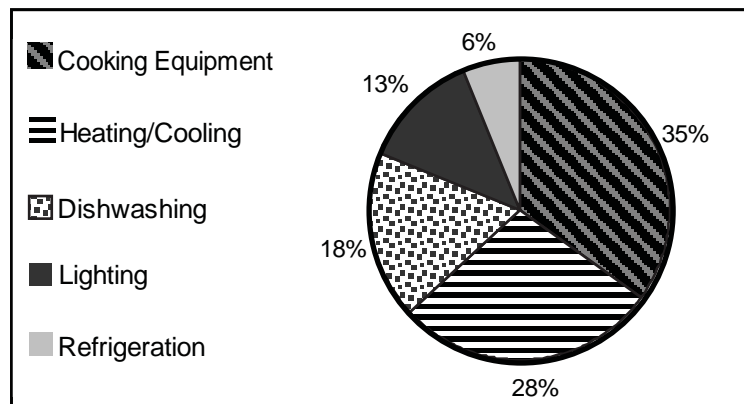
Based on GS-46, Green Seal's Standard for Restaurants and Food Services

The Situation: Restaurants and food service operations are the most concentrated user of energy in the commercial sector.

The Change Maker: An environmentally responsible food service operation closely manages their energy use, keeping the big picture in mind.

➤ **Conserve Energy:** Food service operations comprise seven percent of the all commercial building energy use in the US. While this is less than one percent of total energy used in the US (and typically a small component of total operational costs), food service operations are the most intensive energy users in the commercial sector, in terms of BTUs per square foot.^{1 2} Further, electricity costs have been steadily increasing for the last ten years. As a result, careful energy management is an important practice and all areas of energy use have potential for conservation.

Typical Energy Consumption for Restaurants & Food Service Operations ³



➤ **Use Renewable Energy:** Most energy in the US comes from coal, nuclear, and other fossil fuels power plants. Producing energy from these resources leads to degradation of our environment, polluting our air, land and water. For example, electricity generation is the leading cause of industrial air pollution in the U.S.⁴ Energy from renewable sources like solar, wind, geothermal, or waste-product digestion are cleaner options.

Read the full GS-46 standard at:

http://greenseal.org/certification/standards/gs46_restaurantfoodsvcs.cfm

ENVIRONMENTAL
LEADERSHIP STANDARDS



CERTIFICATION FOR
PRODUCTS, SERVICES,
PROPERTIES & COMPANIES



PARTNERSHIPS IN
GREEN PURCHASING &
FACILITIES MANAGEMENT



SUSTAINABILITY
RESEARCH & LIFE CYCLE
ANALYSIS



How to make a real difference: According to the Green Seal Environmental Standard for Restaurants and Food Services, GS-46:

- 1. Track energy use and reduce over time.** Understanding current and past energy use is the best way to identify opportunities to improve energy performance and gain financial benefits.
 - Record the amount of energy used each month – in terms of BTU/sq ft.
 - Record energy costs each month.
 - Compare current and previous usage and costs – normalized for your sales. (divide by sales volume) and weather.
 - Use the ENERGY STAR Portfolio Manager, or other comparable tool, to facilitate this process. http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager
- 2. Routine Maintenance.** A few simple maintenance practices to make sure your equipment is running as designed can save ten percent or more on your energy bill.
 - Create a conservation and maintenance checklist. Include all manufacturer recommended maintenance. Monitor performance of equipment, including refrigerator and freezer temperature.
 - Get your air balanced. This is done by a professional technician and will ensure that the hoods aren't sucking up your air conditioning or heating, contributing to inefficiencies.
- 3. Energy-Efficiency.** Energy efficient options are available for all energy uses in a food service operation. Decide what to invest in – remembering that saving energy saves money. Visit the following website for information on local incentive programs: <http://www.dsireusa.org/>
 - Appliances: Make sure equipment is on only when it needs to be; Use ENERGY STAR appliances, or equivalent.
 - HVAC: Use a set-back temperature when property is unoccupied (cool at 85°F and heat at 62°F); Upgrade ventilation hoods with side panels or other design options, or move to demand-control hoods; Consider ENERGY STAR ceiling fans; Upgrade HVAC to ENERGY STAR, or equivalent.
 - Lighting: Use vacancy sensors in low-occupancy areas (closets, coolers, restrooms, offices); install ENERGY STAR bulbs, or equivalent, in areas where lights are on for four hours or more:
 - Replace T12 with T8 or T5 bulbs
 - Replace non-dimming incandescent with CFL or LED lighting
 - Replace incandescent exit signs with LED exit signs
 - Refrigeration: Trap cold air in walk-ins with strip curtains or automatic doors; insulate refrigeration lines with R-13 or better; upgrade to ENERGY STAR options, or equivalent.
 - Water: Heating water uses electricity, so use ENERGY STAR dishwashers, or equivalent. Use water-efficient fixtures like a 1.6 gpm (or less) pre-rinse spray valve, 2.2 gpm (or less) kitchen faucet, 0.5 gpm (or less) lavatory faucet, 1.6 gpf (or less) toilet, and 1.0 gpf (or less) urinal.
- 4. Renewable Energy.** There are other ways to reduce the environmental impact from your energy usage:
 - Generate your own energy. Some options include solar panels, digesters and geothermal heat. To help off-set the capital costs, there may be incentive programs available in your community.
 - Work with your utility company. Utility companies may offer energy from renewable sources. If your utility does not have a program there may be a local renewable energy provider.
 - Purchase renewable energy certificates (RECs). If you cannot generate your own or get your energy from renewable sources, then support the generation of renewable energy with the purchase of certified RECs, search options at www.green-e.org.

¹ DOE (United States Department of Energy). 2006. Commercial Energy Use. Last accessed 10-4-08.

<http://www.eia.doe.gov/kids/energyfacts/uses/commercial.html#TYPES>

² DOE/EIA (United States Department of Energy and the Energy Information Administration). 2001. A Look at Commercial Buildings in 1995: Characteristics, Energy Consumption, and Energy Expenditures. Last accessed 10-5-08. http://www.eia.doe.gov/emeu/cbecs/report_1995.html

³ NRA (National Restaurant Association). 2009. Energy Efficiency. Last accessed 5-5-09. http://conserve.restaurant.org/issues/ee_detail.cfm

⁴ Green-e Your Environment. Last accessed 4-27-09 http://www.green-e.org/whyre_env.shtml