

## Green Build-Out

Making your store environmentally friendly could save you lots of cash. [By Jamie Hartford](#)

Whether you're building from the ground up or simply upgrading your existing unit, the opportunities to make your restaurant green are practically endless. From the floors to the light bulbs to the kitchen sink, creating a sustainable business is not only great marketing, it's also better for your bottom line in the long run.



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### Furniture

One of the most visual ways to display your restaurant's commitment to green building is with sustainably designed furniture.

A number of furniture companies are jumping on the eco-friendly bandwagon and supplementing standard furniture options with sustainably sourced versions, but demand is still outpacing supply.

#### Sustainably Produced Furniture

UTILITY SAVINGS: N/A

ENVIRONMENTAL SAVINGS:  
Reduces depletion of natural resources, minimizes landfill waste

Options suited for the demands and needs of a quick-service-restaurant environment might be especially hard to find, but it helps to source as close as possible to your location to keep down shipping.

Using reclaimed or recycled furniture and ensuring new pieces are made from sustainably harvested wood or renewable materials, such as bamboo, are also good things to keep in mind. And if you can't find just the right green product, try to work with your current suppliers to see if they will share your commitment to sustainability.

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### Wall Coverings

#### Low-VOC Paints or Wallpaper

UTILITY SAVINGS: N/A

ENVIRONMENTAL SAVINGS:  
Reduces harmful chemicals in the air

#### Renewably Sourced Wallpaper

UTILITY SAVINGS: N/A

ENVIRONMENTAL SAVINGS:  
Reduces use of chemicals and saves resources

When it comes to wall coverings, using environmentally unfriendly materials doesn't just hurt the environment. It can adversely affect the health of staff and customers as well.

Some paints and wallpaper glues contain harmful chemicals called volatile organic compounds (VOC).

While it's nearly impossible to eliminate VOCs completely, there are steps you can take to reduce levels in your restaurant. One way is to choose low-VOC paints (milk-, egg-, or vegetable-based paints, for example). With a number of options on the market, you shouldn't have to sacrifice on style.

If you're going for wallpaper, avoid vinyl varieties, especially in high-moisture areas—another source of VOCs. Instead, opt for natural and renewable paper sources, or use organic fabrics.

Greening your interior design could cost a little more and won't provide the traditional return on investment like an energy-efficient light bulb, but it will make all the difference to your customers and crew.

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## Flooring

### Reclaimed Wood Flooring

UTILITY SAVINGS: N/A

ENVIRONMENTAL SAVINGS:  
Saves useful materials from  
the landfill

### Bamboo Flooring

UTILITY SAVINGS: N/A

ENVIRONMENTAL SAVINGS:  
Made from a highly renewable  
resource

One of the most important aspects of an eco-friendly eatery is the floor on which your staff and customers walk.

Probably the best way to reduce the impact flooring has on the environment is to use reclaimed materials. If reclaimed wood isn't available and you're still looking for wooden floors, the Forest Stewardship Council, a nonprofit organization that promotes sustainable use of forest resources, can certify that the wood you use was procured from a well-managed forest. Bamboo is another green source for flooring. Unlike trees, it grows quickly enough to be considered a truly renewable resource. While traditional types might not be suited for the rigors of a commercial environment, woven varieties are improving in strength.

Other options include linoleum made from a natural material and ceramic tile, which can come from all-natural renewable sources or include recycled glass particles. Concrete is also an option, as it is highly recyclable. Just be sure to use a water-based stain and low-VOC polish or wax.

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### Kitchen Equipment

**ENERGY STAR  
Refrigerator/Freezer**

UTILITY SAVINGS:  
\$140 annually per refrigerator/  
\$100 annually per solid-door  
freezer

ENERGY SAVINGS:  
Uses 25 percent less energy  
than standard models

**ENERGY STAR  
Commercial Gas Fryer**

UTILITY SAVINGS:  
\$185 per year on utility bills

ENERGY SAVINGS:  
28 MBtu per year

**Light Commercial HVAC  
Equipment**

UTILITY SAVINGS:  
\$3–4 per square foot over  
equipment's life

ENERGY SAVINGS:  
Uses 7–10 percent less  
energy than standard  
equipment

When it comes to saving energy in restaurants, the best place to start is in the back of the house. After all, that's where foodservice establishments spend most of their energy dollars.

Food preparation alone accounts for about 35 percent of a restaurant's energy consumption. But investing in energy-efficient appliances can help bring down utility bills and conserve resources.

When adding or replacing any kitchen equipment, it's important to look for products marked with the ENERGY STAR logo, a sign that they meet or exceed the federal government's standard for energy efficiency. ENERGY STAR has certified a number of appliances present in quick-service kitchens, including fryers, commercial dishwashers, ice machines, and hot-food holding cabinets. A complete list can be found at [www.energystar.gov](http://www.energystar.gov). (<http://www.energystar.gov>)

And there are still other things that can be done to reduce refrigeration costs. Installing strip curtains on walk-in refrigerators and freezers, for instance, can reduce energy consumption by four times when loading inventory. Ventilation is another back-of-the-house action that tends to gobble energy. Upgrading to high-efficiency HVAC units with programmable thermostats and choosing UL-listed kitchen exhaust hoods are suggestions that can cut HVAC energy usage.

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### Lighting

About 13 percent of a typical restaurant's energy dollars are spent on lighting, but it doesn't have to be that way. For starters, ditch those incandescent bulbs, which are inefficient, losing as much as 90 percent of

the energy used to power them as heat. Replace them with compact fluorescent light bulbs.

For linear fluorescent tube lighting, replace T12 bulbs with more efficient T8 or T5 varieties. The “T” designation refers to the diameter of the tubing. The smaller the diameter, the easier to focus light where needed, making it more efficient.

Another emerging technology is light-emitting diode (led) lighting. LED lights can be used for exit signs, external signage, and menuboards. LED lights use solid-state chips rather than a filament and glass bulb. As a result, they last longer and lose much less energy to heat.

<b>ENERGY STAR Compact Fluorescent Light Bulbs</b> UTILITY SAVINGS: \$30 or more in electricity costs over each bulb's lifetime ENERGY SAVINGS: Use 75 percent less energy than standard incandescent light bulbs	<b>ENERGY STAR Exit Signs</b> UTILITY SAVINGS: \$10 annually on electricity costs per sign ENERGY SAVINGS: Require up to 35 fewer watts to operate than standard exit signs	<b>LED Lights</b> UTILITY SAVINGS: More than \$10 per year in energy costs over incandescent lights ENERGY SAVINGS: Up to 90 percent more energy efficient than incandescent bulbs
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## Windows

<b>ENERGY STAR Windows</b> UTILITY SAVINGS: \$125–\$450 per year for single-pane windows; \$25–\$110 for double-pane ENERGY SAVINGS: Reduces energy required to heating, cool, and light
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If your restaurant isn't fitted with energy-efficient windows, the money you spend on heating and cooling could be going, well, right out the window.

Panes filled with odorless, colorless, nontoxic gases insulate better, and improved frame materials made from wood composites and fiberglass reduce heat transfer. Warm edge spacers help by maintaining the proper distance between panes, reducing heat flow and preventing condensation.

To keep heat inside in the winter and outside during warmer months, choose a low-E glass, which has a special infrared-reflecting coating. Blinds, awnings, and window films can also keep out unwanted heat, as can strategic landscaping. Some light, however, can be a good thing, a natural and inexpensive way to light a room. Situating windows on the south-facing side of the building and utilizing skylights can reduce energy bills.

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## Restrooms

The restroom is sometimes referred to as the necessary room, but in quick-service restaurants it has a tendency to generate a lot of unnecessary spending.

One way to conserve water is to install a gray water usage system that uses collected rainwater or water already used in sinks to flush toilets. New toilets are also being designed with water conservation in mind. For the men's room, consider a waterless urinal. Dual-flush toilets are another option.

While installing gray water systems and new toilets can involve a significant investment, installing aerators on sinks is a simple and inexpensive way to cut water usage. The Green Restaurant Association (GRA) suggests using motion sensors on toilets and sinks.

Hand dryers are a great way to eliminate waste from paper towels. Replace older models with newer, more efficient high-pressure air dryers.

<b>Waterless Urinals</b>	<b>High-Speed/Energy-Efficient Dryers</b>	<b>Aerator</b>
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UTILITY SAVINGS: Up to \$3,000 per year on water per urinal

ENVIRONMENTAL SAVINGS: Saves up to 40,000 gallons of water per urinal

UTILITY SAVINGS: Up to 95 percent cost savings vs. paper towel

ENVIRONMENTAL SAVINGS: Eliminates waste from paper towels, can use up to 80 percent less energy than other dryers

UTILITY SAVINGS: Up to \$200 per year

ENVIRONMENTAL SAVINGS: Can save up to 2.5 gallons of water per minute

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