

## How to green your home

January 16, 2009

### How to green your home

By Laura Orfield-Skrivseth, Amy Brogan, Amanda Marlow and Ron Orfield, [Orfield Design & Construction, Inc.](#)

There are many ways to make your home greener, including increasing energy efficiency, reducing waste, decreasing water usage, lowering indoor air pollution and creating a more sustainable environment. Here are several ideas that can help make every space of your home, inside and out, more environmentally friendly. Homeowners can do some of these themselves or they can hire professionals to complete them. Although costs for green products tend to be higher upfront than for more traditional items, you will recoup your monetary investment and gain financially as you conserve energy, all the while knowing that you are benefiting the planet.

### Living areas (living room, dining room, bedroom, etc.)

1. Add flooring that is easy to clean and repair. It should not emit gases or foster mold or other allergens. It should also be durable, ultimately saving energy that would otherwise be spent creating and transporting replacement materials. This also keeps the original materials out of the landfill.
2. Replace old windows with Energy Star<sup>®</sup>-qualified ones, and skylights from companies like Marvin<sup>®</sup> and Anderson<sup>®</sup>. These products feature advanced technologies such as invisible glass coatings, vacuum-sealed, inert gas-filled spaces between windowpanes, improved framing materials, weather stripping and warm edge spacers. All of this helps keep homes cooler in the summer and warmer in the winter.
3. Use natural materials that are produced locally. This will reduce the energy needed for production and shipping.
4. Use paints, stains and sealants with no, or low, levels of toxins. These materials are durable, cost-effective and are less harmful to human and environmental health than standard items often are. Many stains, sealants and paints contain solvents to improve viscosity and to decrease the time it takes to dry. However, solvents can off-gas for days, or even years, after the paint is applied. This pollutes the air you breathe. Avoid this difficulty as much as possible.
5. Use energy-efficient light bulbs, including light-emitting diodes (LEDs) and compact fluorescent bulbs (CFLs), to conserve energy.

### Bathroom and laundry room

1. To conserve water, install dual-flush toilets. These may have two buttons instead of a handle, for solid or liquid options. Dual-flush toilets use up to 32% less water than conventional toilets, which consume 25-33% of water in homes or 1.6 gallons per flush.

2. Install low-flow shower valves to conserve water. One downside of these is that, because they utilize less water, they may also compromise the consistency of the temperature. Speak with your plumber about ways to prevent this, including adding thermostatic mixing valves, anti-scald valves or pressure-balancing valves.
3. Install a fan in the bathroom to remove odors, airborne irritants and moisture, which can lead to mold issues. To be truly effective, a fan should remain on for at least 20 minutes after a shower, so consider using a timer to help conserve energy.

## **Kitchen**

1. Use cabinets made of wheatboard, bamboo laminate, or with Forest Stewardship Council- (FSC-) certified, pressed-board cases. These renewable resources use fewer toxic adhesives, off-gas less than other materials and improve air quality.
2. For countertops to be considered green, they should be durable, scratch- and stain-resistant and food safe. Countertops that fit these criteria include natural stone, recycled glass tiles, quartz-based polymers and paper composites.
3. Re-surface flooring instead of replacing it to save the energy of creating and transporting replacement materials. This also helps keep products out of the landfill.
4. If you are replacing your cabinets, aim to keep them out of the waste stream. Achieve this by donating them to local re-use centers, such as the Twin Cities Habitat for Humanity ReStore in Minneapolis, by giving them away, or by selling them on free, localized websites such as on Craigslist.com.

## **Utility room (furnace, electric box, water heater, etc.)**

1. Wash your clothes in cold or warm water instead of in hot to conserve energy.
2. Use humidifiers and ventilate well to maintain healthy air quality, especially in green buildings which should be airtight.
3. Insulate ducts throughout your home to cut down on heating and cooling costs.
4. Make sure that heating, ventilation and air conditioning (HVAC) systems are Energy Star®-rated, which indicates that they are more than 90% efficient.
5. Avoid washing dishes by hand or rinsing them before loading the dishwasher. Run the dishwasher when it is full and make sure that it is Energy Star®-rated. This will increase water and energy conservation.
6. Replace your water heaters with on-demand, tankless, or instantaneous water heaters. These are more efficient than traditional tank water heaters, which cycle on-and-off for the entire day, wasting water. It takes the conventional hot water heater time to heat the water that the homeowner will use, and until the water is warm, the heater wastes water. In contrast, tankless hot water heaters provide hot water only as needed and only run for a few minutes each day. They eliminate the substantial energy losses associated with storage water heaters.

## **Exterior (surface materials, landscaping, insulation, roofing, etc.)**

1. Use ready-to-install framing for additions to reduce the amount of material used in the building structure. This is a more efficient use of material that helps to improve productivity and reduce costs.
2. Invest in landscaping and tree placement to maximize natural heating and cooling. Deciduous trees can help cool the house in the summer and let sunlight through to help warm the home in the winter.

3. Have your home designed with natural lighting in mind. For instance, install more windows on the south side of your home for natural warmth and light from the sun, which will help you to save on heating and lighting costs.
4. Install the highest efficiency, Energy Star®-rated, heating, ventilation and air-conditioning (HVAC) systems possible, that are within your budget. This will help you to decrease energy usage. Continue a yearly maintenance contract in order to keep the system running efficiently.

Take these steps to contribute in many positive ways to the future of our planet.

*Celebrating over 30 years of creative design in residential remodeling, Orfield Design and Construction is an award-winning design-build firm out of St. Louis Park, Minn., providing architectural, remodeling and interior design services. We help you with every stage of your project, from blueprints suitable for permits to placing artwork in your new spaces. Services include: complete design planning & construction services, detailed project management, remodeling & additions, kitchens & baths, interior & exterior updates, basement finishes and financing resources.*

Copyright ©2009 NARI Green. All rights reserved.

[www.nari-green.org](http://www.nari-green.org)