

# Greening

## The Bath And Kitchen

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**It's** not just about installing a high-efficiency toilet in the bathroom or a water-conserving faucet in the kitchen. There are many other ways to improve the green performance in the new or remodeled bath or kitchen. Besides saving water, green initiatives address energy conservation, recycling, sustainability and noise reduction.

The process of selling green bath-and-kitchen products to homeowners, however, can get complicated by their perception that green means more expensive. Worries about the current economy and housing market may be decreasing consumer enthusiasm for energy-efficient homes and green home products, according to the 2007 Shelton Group Energy Pulse study. While 69% of consumers said they would choose one home over another based on energy efficiency, that's down from 86% who said they would do so in 2006.

"Consumers have in their heads that energy efficiency or green is more expensive," says Suzanne Shelton, CEO of Shelton Group. "In general, folks are hanging on to their money, even if you talk about payback."

### **Selling the Green Concept**

Shelton discussed the marketing of green housing and recent research on building trends and consumer attitudes at a workshop in November at the 2007 GreenBuild Expo in Chicago.

Claims that energy-efficient products will save money may not be sufficient to sell them, Shelton noted, adding, "Messages also need to offer other subtle suggestions such as happiness, safety, peace of mind and security in order to resonate with what consumers desire."

Aesthetic features are a high priority alongside energy efficiency in both new construction and home renovation, according to the Shelton Group study.

Study participants were asked what one or two things they would do if given \$10,000 to make home renovations. Responses included: refinish the kitchen or bathroom (29%); replace carpet or add hardwood or tile (31%); repaint interior or exterior (27%); and replace windows (23%).

When asked, "Given an extra \$10,000 in your construction budget for discretionary items, which of the following would you choose?" participants answered: granite countertops (26%); higher efficiency HVAC units (24%); upgraded or additional energy-efficient kitchen appliances (21%); additional tile or hardwood (21%); and an indoor air-purification system (18%).

"Before you can get someone to embrace green, you have to bring personal responsibility into it," Shelton noted. "Almost 80% of the population does not understand that they are part of the problem."

Also, if people don't get a reward for their effort, they will stop doing it. For example, if homeowners reduce their water consumption but then have to pay higher water fees due to lower water usage, that will discourage them from further conservation efforts.

More than 60% of people surveyed expressed concern about global warming, but too many do not understand that the way we generate electricity contributes to about one-third of greenhouse gas vs. 16% contributed by personal vehicles, Shelton said.

## Green is Growing

Another presentation at the GreenBuild Expo workshop discussed results of the "Residential Green Building Report" by Jeff Martin, Brian Swett and Doug Wein, with support from Cherokee, a private equity firm that invests in Brownfield redevelopment, and the Erb Institute for Global Sustainable Enterprise at the University of Michigan. Here are some of its findings:

- In Denver, green home penetration has surpassed 20%.
- A 2006 McGraw-Hill Construction study projected that by the end of 2007, about 60% of homebuilders would undertake green construction projects, accounting for at least 15% of their production. The study also said the residential green building market is expected to grow to between \$19 billion and \$38 billion by the year 2010.
- The three primary elements critical for growing a green homes market are consumers, industry (both for profit and non-profit organizations) and government.

- To compete in the residential green building arena a developer must have a comprehensive strategy specific to the location.
- Green homes can be sold to any consumer via benefits-based selling (e.g., all homebuyers want a healthy living environment), but some buyers are willing to pay more or have a faster absorption rate for these benefits.
- Potential green homebuyers are motivated by personal interest, including: health effects on inhabitants; durability and ease of maintenance; environmental friendliness; and energy efficiency, in addition to those perceived to be standard for conventional homes (such as location, price and size).
- Each segmented, geographically based real estate market has a different mix of homebuyers with a variety of interests and demands.
- Developers and builders need to identify the drivers of green home growth in particular markets and then construct partnership, marketing and sales strategies to tap into this market.
- Green construction can be successfully completed at zero extra cost with careful design and systematic incorporation of green elements early in the development process.
- Green homebuyers tend to share certain behaviors and characteristics. For example, they seek out healthy food options; buy green products; actively participate in environmental and cultural organizations; desire holistic experiences and authenticity; look to multiple and extensive sources of information; and pursue higher education.

### How to Be Green

There are a number of ways to make the bath and kitchen more energy efficient and environmentally friendly. According to the American Water Works Association ([www.awwa.org](http://www.awwa.org)), total tap water use (indoor and outdoor) in a typical single family home is about 101 gallons per capita per day, of which only 3% is used for drinking. Bathroom fixtures, washing machines, dishwashers, outdoor watering another uses consume the remaining 97%. In an average home, plumbing leaks account for about 14% of water consumed, AWWA reports.

A leaky faucet wastes as much as 2,700 gallons in a year, and a leaking toilet tank can waste up to 200 gallons of water a day, says Jane Bennet Clark on [www.kiplinger.com](http://www.kiplinger.com).

Clark also suggests:

- Install a low-flow showerhead, which restricts water output to 2.5 gallons per minute or less. Some new fixtures go as low as 1.5 gpm, saving 7,300 gallons and \$30 to \$100 a year over their 2.5-gpm counterparts.

- Replace faucet aerators to reduce the gallons-per-minute water flow. Aerators come in a range of flow rates, up to 2.2 gpm. A faucet flow rate of 1 gpm is fine for the bathroom, but for the kitchen, a flow rate of at least 2 gpm is needed.

Graywater (wastewater from bathtubs, shower drains, sinks, washing machines and dishwashers) accounts for 60% of the outflow produced in homes, according to the Partnership for Advancing Technology in Housing. It contains little or no pathogens and 90% less nitrogen than black water (toilet water). Some toilets are equipped with systems that use graywater for flushing.

Kohler Co. says its Ingenium flushing system has a quiet, controlled flush that minimizes noise and splash. Its Power Lite power-assisted toilet uses an electric pump system for a powerful but quieter flush. A dual-flush option, which offers the choice of a 1-gallon flush for liquid waste or 1.4-gallon flush for bulk waste, can save the average household about 5,000 gallons of water per year, according to Kohler.

Australian sanitary ware manufacturer Caroma says the lower volume flush could be used four times more often than the higher volume flush in a typical application. Caroma says its dual-flush toilets can reduce water consumption by as much as 40% vs. today's mandated low-flow toilets.

Moen has announced that by Jan. 1, 2009, it will transition to flow-optimized aerators — designed to use less water without sacrificing performance — on all Moen, ShowHouse and Cleveland Faucet Group bathroom faucets.

The Green Home Guide by the U.S. Green Building Council suggests that a green home use salvaged materials such as kitchen tiles and materials with significant recycled content and be equipped with energy-efficient lighting, heating, cooling and water heating systems.

Another green idea from the 2007 GreenBuild Expo: flooring products that contain recycled or renewable materials. GreenFloors offers plush carpeting made from recycled plastic food and soda bottles, and recycled nylon and carpet tiles made from old car tires, as well as bamboo, linoleum and cork flooring that come from rapidly renewable sources. EcoDomo LLC offers recycled leather tiles for flooring.

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