

## Upgrading Your Home? Go Green!

The fall months are a popular time to begin those home improvement projects that you have been putting off. Here is why you should consider incorporating some green technologies into your next home upgrade.

According to the U.S. Energy Information Administration, buildings are the single largest contributor to global warming, accounting for almost half of total annual U.S. energy consumption and carbon dioxide emissions. LEED (Leadership in Energy and Environmental Design) is a certification program for the design, construction and operation of high performance green buildings. LEED principles incorporate sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED standards have been used for large facilities, such as office complexes and sporting arenas, but now LEED is going smaller by adopting standards for residential homes. From a local perspective, contractors are encountering green design in their projects with more regularity, as Pennsylvania now has 157 LEED-certified buildings, only third in the nation behind California and Washington. Depending on your goals, you could take your upgrades all the way to the level of applying for LEED certification. For many this will not be a realistic option, but even small and inexpensive improvements can make a significant difference. Regardless of the extent you choose to make your home 'green', you will improve the re-sell value of your home and save money over the long term when it comes to maintaining your property.

Green building techniques include the use of materials that are renewable and locally available. A home that incorporates green technologies supports the environmental initiatives of reducing stormwater pollution and energy consumption. Green technologies will also improve the indoor air quality, which will have a positive impact on your health. Lastly, there are financial incentives to upgrading your home to 'green'. As part of the federal stimulus package, there are tax credits available to home owners who undertake energy efficiency upgrades. For more information on the specifics of these credits, please refer to [http://www.energystar.gov/index.cfm?c=tax\\_credits.tx\\_index](http://www.energystar.gov/index.cfm?c=tax_credits.tx_index).

The following are some 'green' features you can incorporate into your home:

### Green Building Materials

Are you considering painting several rooms in your home, adding an addition or refurbishing some of your furniture? Implement these improvements with healthy non-toxic building materials, with zero to low Volatile Organic Compounds (VOC) paints and sealants. Toxic paints and sealants that are improperly disposed of will drain into the stormwater system, imperiling the aquatic wildlife. Do you want to want to make the change from carpet to flooring or vice versa? To use a greener method, consider wood based features that come from rapidly renewable sources like linoleum, bamboo, recycled-content tile or non-VOC carpet. Choose wood products from sustainably managed forests, such as those certified by the [Forest Stewardship Council](#). When making renovations, try to use salvageable materials like kitchen tiles and materials with significant recycled content as much as possible. The use of salvageable and reusable materials will reduce waste and pollution in the watershed.

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### Water Efficiency

Consider installing water efficient kitchen and bathroom fixtures or a front loading clothes washer. Tankless water systems provide on demand access to hot water throughout the home, so it won't be necessary to run the shower for 10 minutes before jumping in! A high efficiency toilet will use only one gallon of water per flush. This can save a family of four up to 20,000 gallons of water annually, versus an older 3.5 gpf toilet. Consider installing your own rainwater collection and storage system. The beauty of a rain water collecting system is that the water catchment structure is already installed; it's the roof of your house! All that is then needed is a rain barrel, which is simply connected to the down pipe from the roof.

### Landscaping

Do you have a green thumb and are looking to improve your home's curb appeal with upgraded landscaping? Consider using only native plants if you haven't done so before. Native plants have been growing and evolving in our region for thousands of years and, as a result, have adapted to the local soils and climate. As a result they are more likely to thrive with minimal care, unlike exotic plants. This will mean less need for water. You will also not need to use fertilizer and pesticides as often, as runoff that contains these chemicals often contains harmful pollutants. Consider planting a rain garden next spring. A rain garden is a planted depression that allows rainwater runoff from impervious urban areas like roofs, driveways, walkways, and compacted lawn areas the opportunity to be absorbed. Rain gardens can cut down on the amount of pollution reaching creeks and streams by up to 30%. Native plants are recommended for rain gardens because they generally don't require fertilizer and are more tolerant of one's local climate, soil, and water conditions.

### Pervious Paving

Are you consider replacing your cracked or worn walking path, driveway or patio? Consider using pervious paving instead of impermeable materials like asphalt, brick or concrete. Pervious paving materials include gravel, crushed stone, open paving blocks, grass pavers, mulch, turf and porous concrete. These materials will allow water to drain as nature intended. Not only will these materials let rainwater pass through, they will also allow the soil underneath to breathe naturally and harbor normal bacteria and insect life. This will also be good for the trees and bushes surrounding the paving!

### ...And the Cheapest Green Fix

Plug your leaks! This simple step can go a long way toward keeping your home at the temperature you desire, cutting energy use. Common leaks occur around windows, doors and other wall penetrations. Plugging those leaks with weather stripping and caulk can be a simple task for anyone and can reduce your energy bill by \$100 or more.

For more details and additional 'green' home features, please refer to: [www.greenhomeguide.org](http://www.greenhomeguide.org).



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