THIS GREEN HOUSE

WHAT MAKES A HOME ENVIRONMENTALLY ADMIRABLE? HERE ARE A FEW IDEAS TO GET STARTED. FOR MORE, CHECK OUT THE U.S. GREEN BUILDING COUNCIL'S COMPREHENSIVE WEB SITE, *GREENHOMEGUIDE.ORG*.

Traditional photovoltaic systems are installed at a fixed angle, facing south, and provide about 12 percent efficiency. An **active tracking PV system** rotates to follow the sun throughout the day and year, increasing the system's efficiency by 30 to 40 percent. To learn more, visit ***tinyurl.com/57vngb.***

Plant deciduous trees.

Install attic insulation.

Incandescent bulbs are one of a household's largest energy consumers. **LED lightbulbs** are up to 30 times more efficient than incandescents, contain no mercury (unlike compact fluorescent bulbs), and last for 30,000 hours instead of 1,000. For more information, go to ***tinyurl.com/6fxkf5.***

While large windows provide excellent light and natural solar warmth during the winter, they can also make your house oppressively hot in the summer. Install awnings or a **motorized shade system,** which automatically lowers shades when the sun is shining. (Eco-purists can opt for a manual system.) ***northsolarscreen.com, windowsnw.com/motorized.aspx***

Switch to low-flow toilets and plumbing fixtures.

Install a solar water heater.

Even if it's certified by the Forest Stewardship Council, tropical wood from Asia must be shipped halfway across the globe. The emissions due to transport from a **local sustainably managed forest** are sure to be less. Visit ***sustainableforestprods.org.*** For the Sierra Club's take on forest certification, go to ***sierraclub.org/committees/forestcertification.***

Plant a drought-tolerant garden.

Weather-strip doors and windows.

Install a programmable thermostat.

Each year 2.5 billion tons of cement are produced worldwide, creating 5 percent of global carbon dioxide emissions. Low-carbon concrete such as **Eco-Cement,** manufactured at a lower temperature than traditional cement, saves energy in production. It can be made from just about any solid-waste product, is recyclable, and absorbs CO_2 as it dries, further reducing carbon in the atmosphere. ***tececo.com***

Install aerators on faucets.

Capture all the rain that lands on your roof before it goes down the storm drain and use it for your garden (and even toilet) with a **rainwater-harvesting system.** ***harvesth2o.com***

Consider recycled-plastic decking.

Low-emissivity insulated glass windows reduce heat loss and heating costs, keeping houses warmer in the winter and cooler in the summer. ***efficientwindows.org/lowe.cfm***

Insulate your water heater and hot-water pipes.

Eat your organic granola on a **recycled kitchen countertop.** Terrazzo combines the ecofriendliness of 95 percent recycled content (glass, stone, and other materials) with the durability and scratch resistance of cement. Or consider countertops made of 50 percent bamboo and 50 percent recycled fiber from construction sites. Find examples at ***terrazzo network.com*** and ***kliptech.com/ecotop.html.***

Use local chipped wood waste for erosion control.

If you live where temperatures are simply too extreme to get by without technology, invest in a **high-efficiency HVAC** (heating, ventilation, and air-conditioning) system. For the ultimate efficiency and lowest initial and operating costs, design your system *after* you've squeezed everything you can from passive energy-savings techniques. For more information, go to ***tinyurl.com/6jf6cr.***

Choose Energy Star appliances.

Why waste electricity or gas (and money) to heat your water when you can let the sun do it for free? Opt for a **solar-powered water heater.** And for backup when the sun's not shining or you need lots of hot water, install a tankless, on-demand water heater, which uses considerably less energy than a standard one. ***aceee.org/consumerguide/waterheating.htm***

Insulate the foundation slab and walls.

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