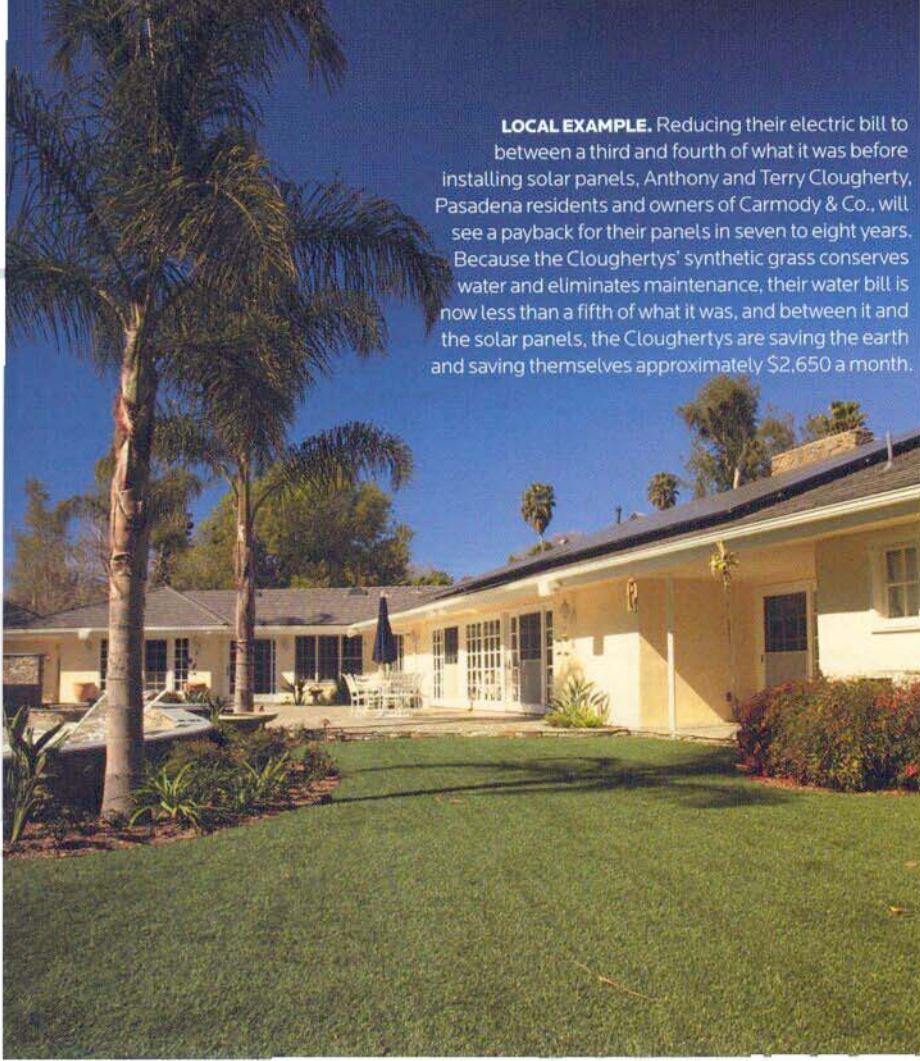


LOCAL EXAMPLE. Reducing their electric bill to between a third and fourth of what it was before installing solar panels, Anthony and Terry Clougherty, Pasadena residents and owners of Carmody & Co., will see a payback for their panels in seven to eight years. Because the Cloughertys' synthetic grass conserves water and eliminates maintenance, their water bill is now less than a fifth of what it was, and between it and the solar panels, the Cloughertys are saving the earth and saving themselves approximately \$2,650 a month.



last a decade and use about a quarter of the energy on average—to overhauling your landscaping and your HVAC system, cents-savvy consumers have oodles of options. The point isn't how much you do—it's that you just do something, says Lisa Swan, owner and principal designer of Pasadena-based Design Forward, which specializes in residential design, new construction, and remodels. "As a nation, we need to be taking these steps, and I think they're worth the economic effort," she says.

Fridges and washing machines are two good places to start, as both are huge home-energy hogs but aren't too terribly pricey to replace, she says. The heating and cooling system is another good long-term investment, Swan notes. The higher the air conditioner's Seasonal Energy Efficiency Ratio (SEER)—a number attached to every AC unit—the more energy efficient it will be. Also, be sure to properly size the unit for your home. "You don't need a 5,000-ton air conditioner for a 1,500-square-foot house," noting that any greener model that fits your home also will fit your budget. "An energy-efficient and better-sized unit will be just as affordable as a bigger one," she says.

Solar panels and photovoltaic systems also provide a way to realize substantial savings. If you design the system to handle just enough of your energy usage, it can help you stay below the basic monthly charges, which are minimal, Swan says. "Size the system for just enough of your energy use to get you below the baseline," she says, noting that the difference can be a \$30 monthly bill versus a \$200 bill. And don't assume you must take an all-or-nothing approach. "Four or five photovoltaic panels instead of 12 to 16 is more affordable," she says. "Twelve to 16 is \$30,000, but if you only had to spend \$8,000 or \$10,000 and could still reduce your bill by \$150 a month," that would be significant, she notes. "The payback for that system is much shorter—three to five years instead of 15 years if you went with the whole shebang. . . . It's a much more reasonable way to approach getting photovoltaics. That's one of my biggest pieces of advice."

Another option on the landscape (literally!): irrigation systems and sprinklers. Not only can you use mulch to wick moisture and drip irrigators to water conservatively, but you also can exchange your existing control system for an automated site-specific gadget that communicates with the National Weather Service and adjusts the settings daily based on your current climate conditions. The upshot? Your H₂O flows only when needed. "It's really simple . . . and costs about \$200," Swan says.

Color of Money

At-home edits can add ecologically friendly green to your residence and economical green to your bottom line.

// STORY BY ALISON RICH

↳ **EVERY TIME WE TURN AROUND,** IT SEEMS THAT SOMEONE, SOMEWHERE IS HAWKING ANY NUMBER OF "MUST-HAVE" PRODUCTS. WHETHER IT'S A \$19.95 STEAL OF A DEAL (IN SIX "EASY PAYMENTS," NO LESS) OR A HEFTIER PURCHASE THAT REQUIRES SOME SERIOUS SHOPPING AROUND TO AVOID A SEVERE CASE OF BUYER'S REMORSE, THERE ARE ALWAYS MYRIAD WAYS TO DEplete YOUR DOUGH. BUT SOMETIMES, AS IS THE CASE WITH TODAY'S SLATE OF HOME-RELATED GREEN PRODUCTS, THESE BUYS ARE WISE, WITH THE SAVINGS FAR OUTWEIGHING THE INITIAL CASH

outlay—not to mention the long-term investment in our planet's welfare. To illustrate this first-rate info in a firsthand way, we enlisted the advice of a local design-build expert and an Environmental Protection Agency (EPA) pro, who gave us the economic upshot of going green. After reading their words, we think you'll agree that the cost of not living sustainably actually is much higher than the vice-versa alternative—with considerable chinks gauging

your change-purse and marring the earth's well-being.

A Forward Focus

Today's marketplace is replete with energy-saving products—and the inventory is growing faster than a bamboo forest. From replacing old toilets with low-flow models and switching standard bulbs with power-conserving compact fluorescents—which cost a bit more but can



■ A POWERHOUSE FOR PASADENANS

Pasadena offers a number of financial incentives to environmentally responsive residents. For example, the purchase of an Energy Star appliance will net you up to \$150 from Pasadena Water & Power (PWP). You'll score even more if you enroll in the Greening Pasadena Rewards Program. PWP also provides rebates to residential electric customers who buy and install energy-efficient items to cool their home: central air conditioners (minimum 14 SEER) and Energy Star-rated room air conditioners, dual-glazed windows and doors and light tubes, window sunshade screens, and solar or roof attic fans. PWP will even give a \$200 rebate to residential water customers who purchase and install high-efficiency (HEW) clothes washers.

For the full scoop on all the available discounts, visit cityofpasadena.net/waterandpower/programs_residential.asp.

The enhancements you make, though, should be within your means. "If buying all new appliances is in your budget, then do it," Swan said. "But if it's not and you need to put food on the table instead, then it's not going to make sense for you. ... Not everyone can afford photovoltaics or to completely re-landscape their property or spend \$4,000 or \$5,000 to reinsulate their house—and, yes, you'd notice a huge difference in your comfort level [if you reinsulated] and your energy costs would go down."

Pure Energy

One easy way to green without breaking the bank is to replace your timeworn appliances with Energy Star-certified models, says Maria Vargas, EPA staffer and spokeswoman for the Energy Star program.

In fact, a key piece of what Energy Star does for consumers is identify cost-effective purchases, Vargas notes. "Part of the reason Energy Star is structured the way it is, is so people don't have to use the calculator all the time," she says. An Energy Star label signifies three important points, Vargas says. "It means the product is more energy efficient than a conventional product—usually in the top 25 percent of products. It

means there's no sacrifice [in quality]," she says. "And the third leg of the stool is that it's cost effective. So if there is an upfront cost—and there isn't always—it will typically pay itself back, depending sometimes on how much you use it, usually within five years or less."

Obviously, most consumers want to know if they will recoup those costs in the future. But that's not the question they should be asking, Vargas says. "We try to turn that on its side a little bit and say there are two price tags you've got to pay attention to: The first is what you pay at the point of purchase. The second is what it's going to take to operate it over its lifetime. You've got to pay attention to both. Lots of people aren't familiar with the second price tag, and that's a really important part of being a green consumer." About 60 percent of the products bearing an Energy Star label cost the same as non-certified ones, Vargas notes. "You don't always have to pay more," she says. "You just have to be a smart shopper."

Some good places to start: Lighting costs comprise a whopping 20 percent of a home electric bill and 10 percent of the energy bill, but lighting is "an easy one to make energy efficient," Vargas says. The next time a light bulb burns out, put a compact fluorescent light bulb

“Using a programmable thermostat can save about \$100 to \$150 a year because you're not cooling or heating when you're not there.”

SOURCE: MARIA VARGAS OF THE ENVIRONMENTAL PROTECTION AGENCY

(CFL) in its place. If each American switched just one light bulb for a CFL, enough energy would be saved to reduce annual energy costs by about \$600 million.

A refrigerator is just 5 percent of home electric costs, but the heating and cooling system is an astounding 50 percent of residential energy costs. "Heating and cooling is a great place to focus, especially in Pasadena," Vargas says. "One thing we always tell people is get an annual checkup for your AC unit," she recommends. "Change your air filters. Using a programmable thermostat can save about \$100 to \$150 a year because you're not cooling or heating when you're not there."

Can you replace those outdated machines bit by bit instead of shelling out a ton of cash at once? Absolutely, Vargas says. Doing something is much better than doing nothing at all. And just switching wash loads from hot to

warm water can reduce energy use by half.

To learn more that you can do, check out the Energy Star Home Advisor (energystar.gov) to assess your home's monthly energy usage. Just plug in your ZIP code and some basic info about the types of fuel used to heat and cool your home, and you'll get a personalized list of home-improvement projects that will help up your energy efficiency, increase your comfort, and reduce costs. ☺

Swan notes: It's all about taking care of the inches and not worrying about the miles, referencing a quote from English writer Hartley Coleridge. "Don't worry about saving the world," she adds. "If everyone just did tiny things, we would be so much better off. Never take the approach that it's just me, it's never enough. It's you. It's a lot. Take the time to do those small things, and they add up."