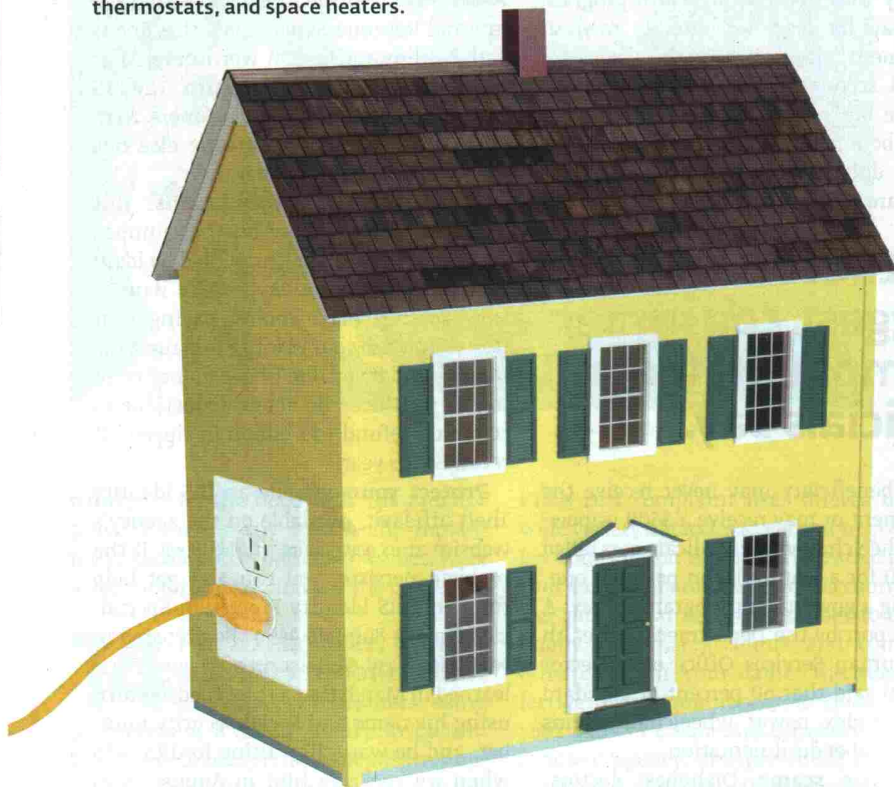


Test your energy IQ

If you're like the typical American, you know a thing or two about energy efficiency, but you're also leaving serious savings on the table. That's clear from our 2012 Energy IQ Quiz, a nationally representative survey of 1,035 Americans conducted by the Consumer Reports National Research Center. No one got every question right, and only a third answered most correctly. Test your own Energy IQ, then read through our answers to learn the latest efficiency news and advice, which could lower your utility bills by hundreds of dollars. And don't miss the reports that follow on lightbulbs, programmable thermostats, and space heaters.



▶ Since the late 1970s, the energy consumed by all households in the U.S. has ...

- increased by about 50 percent
- increased by about 25 percent
- stayed about the same
- decreased by about 25 percent
- decreased by about 50 percent

Today's homes are about 30 percent bigger than those built in the late 1970s, they're buzzing with electronics, and nine out of ten have air conditioning. And yet, total energy consumption has been basically flat, which just 7 percent of survey respondents knew. "But the bar was unbelievably low to begin with," says Arthur Rosenfeld, Distinguished Scientist Emeritus at Lawrence Berkeley National Laboratory and a two-term commissioner with the California Energy Commission. "Energy was dirt cheap back then, and if you were in the

market for a new car or refrigerator, you had no way of measuring efficiency."

Appliance standards have done the most to counteract other increases in home energy use. Take refrigerators: A typical 1975 model consumed about 1,750 kilowatt-hours (kWh) per year. Efficiency standards helped bring that figure down to around 500 kWh in 2011, and a target of about 400 kWh is set for 2015. Clothes washers and dishwashers have also seen impressive efficiency gains. The new lighting standard that took effect in January is projected to cut the average household's lighting-related energy use in half by 2035. And standards set for 2015 and beyond will improve the efficiency of air conditioners and water heaters, which together account for almost one-third of the average home's energy use.

▶ Which home improvement will usually lower a household's annual energy costs the most?

- Upgrading windows
- Adding insulation to an attic
- Installing light-colored roof shingles
- Sealing all air leaks, including leaky ducts

Slick advertising by manufacturers may be the reason 34 percent of people incorrectly choose windows in this question. Though new windows can save energy, especially double-glazed units with low-emissivity (low-E) coatings, our tests have found that it could take 20 years to recoup the investment.

The swiftest savings come from sealing air leaks in your home's walls, windows, and especially its ductwork, which 33 percent of respondents answered correctly. "Leaky return ducts can also introduce unwanted air pollutants into the home," adds Kathleen Hogan, Deputy Assistant Secretary for Energy Efficiency at the Department of Energy. Duct insulating and sealing are best left to a professional and could lower your annual heating and cooling bills by \$400. You can then use a combination of caulk, foam board, expandable sealant, and weather stripping to plug leaks around windows, doors, electrical outlets, and other openings in your home.

Adding attic insulation is often the next best way to save energy. In a typical residence, laying 11 inches of fiberglass or rock wool or 8 inches of cellulose insulation could save up to \$200. Cool roofs are designed to reflect more sunlight and absorb less heat. They can trim cooling costs in warm regions, especially if there's conditioned living space directly beneath the roof.

▶ Which renewable energy device doesn't qualify for a federal tax credit?

- Solar water heater
- Pellet stove
- Geothermal heat pump
- Residential wind turbine

Almost three-quarters of respondents correctly identified pellet stoves as the one form of renewable energy not eligible for a federal tax credit, which expired in 2011. The pellet stove industry is lobbying hard for its reinstatement, saying the U.S. is the potential world leader in the production of the appliances and their clean-burning fuel.

For now, geothermal heat pumps, residential wind turbines, and solar energy systems qualify for a credit, covering 30 percent of the cost with no cap. The tax credit is good through 2016 and can be applied to existing homes and new construction using IRS form 5695. Check www.dsireusa.org for state and local incentives.