

Energy mythbusting: The truth about those energy-saving tips

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You've read the energy-saving tips. You've armed yourself with caulk. You're ready to do some serious damage to your gas and electric bills. Not so fast.

Some common recommendations for cutting [energy use](#) don't save as much as we're led to believe, said Michael Blasnik, a building-science consultant from the Boston area. Blasnik analyzes and evaluates [energy efficiency](#) claims, and he's found that some widely cited savings don't hold up to scrutiny.

"A lot of things have really not been evaluated. ... It's remarkable how little research has been done on what really saves energy," Blasnik said.

He's out to change that. In an effort to figure out what really works, he's done analysis that includes studying the [utility bills](#) of homeowners who participate in home weatherization programs and comparing their savings to the expectations offered by such sources as government agencies, utility companies and, yes, newspaper articles.

In the process, he's busting some energy-saving myths.

That's not to say those things aren't worth doing. Some might make your home cleaner or more comfortable, or they may be important to maintaining what you own. And there's an argument to be made that even tiny savings add up for the greater good.

What's more, Blasnik is quick to note that variables such as how we live, how our homes are built and the climates we live in make it impossible to come up with exact numbers across the board.

But the bottom line is if you undertake some energy-saving measures with expectations of slashing your [energy bills](#), you may be disappointed, Blasnik said.

Here are what he considers some of the least effective recommendations.

-Replacing windows.

A lot of good arguments can be made for replacing old, leaky windows. They'll make your home more comfortable. They can solve condensation problems and prevent moisture damage. They might boost your home's resale value.

But they won't pay for themselves in energy savings, Blasnik said.

In a study he completed for Concord Municipal Light in the Boston area, he determined that replacing 15 old windows would save \$42 to \$112 per year. Even at that higher number, it would take more than 62 years' worth of energy savings to pay for \$7,000 worth of windows.

-Weather-sealing windows and doors.

Caulking and weatherstripping windows and doors is a better idea for increasing comfort than saving energy, Blasnik said.

Maybe 20 percent of the air leakage in a house is through the windows and doors - even less in a newer, tighter home, he said. Blasnik said the bulk of the leakage in a typical home is from air coming into the

basement, traveling up through wall cavities and escaping through the attic.

In his research, caulking and weatherstripping doors and windows saved \$7 to \$28 a year.

That may be worth the expense if you do the work yourself, but if you hire the job out, the payback period can be long, he said.

-Closing the refrigerator door quickly.

Despite the harping of moms everywhere, standing in front of an open refrigerator while you ponder its contents will not drive up your electricity bill, Blasnik said.

The moment you open the door, the cooled air rushes out, and it's a fairly trivial loss, he said. Most of the refrigerator's coldness is held not by the air but by the contents, and those contents won't warm up significantly in the time it takes you to decide between the leftover pizza and last night's meatloaf.

Obviously, leaving the door open all the time would waste energy, because your refrigerator would never stop running, Blasnik said. But closing the refrigerator door quickly will save you a dollar's worth of power a year at most, his research shows.

Instead of policing your teenager's refrigerator habits, he suggested changing a behavior that really does waste electricity and money: putting food into the fridge while it's still hot.

You could open the refrigerator door hundreds of times before you'd waste the energy you do by putting a pot of hot soup into the refrigerator, he said.

-Cleaning refrigerator coils.

Dirty coils, the reasoning goes, make your refrigerator work harder. Cleaning them may have been good energy-saving advice back when refrigerators gobbled electricity, but Blasnik said that's no longer generally true.

Most refrigerators built in the last 15 years use far less power than older models. So say your fridge uses \$70 in electricity in a year. Cleaning your coils might make the refrigerator operate 10 percent more efficiently, but that's an annual saving of just \$7, he pointed out.

Now, if you have an older fridge and a house full of cats, cleaning the coils may well pay off, he said. Certainly cleaning them makes sense if you want your refrigerator to last longer or you just want to keep your kitchen clean.

"I wouldn't say, 'Don't clean your refrigerator coils,'" Blasnik said. But don't expect to see a big difference in your electricity bill.

-Changing the furnace filter monthly.

The main reason furnaces have filters is to keep dirt in the air from fouling up the furnace. But at least in the case of inexpensive, standard furnace filters, they do a better job of filtering the air when they're a little dirty, Blasnik said.

For high-efficiency filters that trap allergens, he'd follow the directions on the filter. And he points out that it's important to start air conditioning season with a clean filter because air conditioners need adequate air flow. But otherwise, he thinks changing the furnace filter once a season is enough.

That doesn't mean you never have to change the filter. A filter that becomes clogged with dirt will restrict air flow, and that will make your furnace run less efficiently, Blasnik said.

-Unplugging cell phone chargers.

You've probably heard about vampire power, which is the standby electricity that's used even when devices are turned off or aren't actively operating. That was a problem five or 10 years ago and still is with some devices, Blasnik said, but in many cases manufacturers have greatly reduced that power use.

That's the case with cell phone chargers.

Blasnik said today's chargers use an unmeasurably small amount of electricity when they're not charging phones - "in the cents per year," he said. So leaving yours plugged in when it's not in use won't break your energy budget.

-Closing drapes at night.

Closing window treatments such as draperies, shades and blinds at night may make you more comfortable because they divert the flow of cold air. But Blasnik said that with standard window treatments, that air still gets in.

If you want your window treatments to add insulating value, you need to invest in the sealing kind that are made for that purpose, he said.

On the other hand, opening window treatments on sunny days does save some energy, he said. The heat from the sun offsets heat loss through the window.

-Tuning up a furnace yearly.

The annual energy saving from tuning up a gas furnace is minimal - anywhere from nothing at all to \$42, according to Blasnik's research.

Tuning up a gas furnace does have its benefits, he said, not the least of which is reducing the likelihood of a failure. And furnace maintenance checks are also important to your family's safety, he said.

Blasnik, however, argues that annual checks are excessive. He thinks every three to five years is sufficient.

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