

Eleven Easy Things You Can Do to Save Energy and Money at Home

This article, **Eleven Easy Things You Can Do to Save Energy and Money at Home, appeared in the Fall 2001 issue of NESEA's magazine, the *Northeast Sun*. It was written by Warren Leon, NESEA's executive director.

*** Edited by Mary Uschak at the NJHMFA to be a little shorter. Also deleted more references. Please see the full article at <http://www.nesea.org/buildings/info/eleventhings.html>.

One of the nice things about saving energy is that it not only reduces pollution, but it can also save you money. At the same time that your electricity and heating bills are going down, you can think about all the extra coal, oil, and natural gas that would have been burned if you hadn't taken steps to save energy. Here are eleven easy ones that are guaranteed to save you money:

1. Wash Your Clothes in Cold Water

If you wash your clothes in cold water, you will find that they still end up clean. Most modern liquid laundry soaps are designed to work well in cold water as well as hot. Hot water is generally only necessary for heavily stained clothes. By washing your clothes in cold water, you will eliminate the majority of the environmental impacts, since 90% of the energy involved in washing clothes by machine goes to heating the water, not to running the machine.

2. Use the Microwave

A microwave only uses one-third the energy of a conventional oven. It therefore allows you to cut down on your consumption of electricity or natural gas. Because it throws off less heat into your kitchen, you will also keep your kitchen cooler and save on summer air-conditioning costs (if you have an air conditioner). Although crockpots, toaster ovens, frying pans, gas ovens, and electric convection ovens are all also better than a large electric oven, a microwave is two to four times better than any of these alternatives.

3. Install a New Showerhead

Let's imagine you live in a household where there are five people who each take a seven-minute daily shower. If you have an old-fashioned shower head that uses five gallons of water a minute, your household will use about 64,000 gallons of water a year for showers. The federal government requires that new showerheads use no more than 2.5 gallons per minute. By converting to one of these, you will save 32,000 gallons of water a year and will need to heat much less water in your home's water heater. You will save money on both your water and energy bills. And, you can even find showerheads that use less than the 2.5-gallon standard. If you are handy, it is easy to remove that old showerhead with a wrench.

4. Weatherstrip and Caulk

Few people get excited by the prospect of spending a Saturday afternoon weatherstripping and caulking, but several hours spent this way can yield considerable energy savings. Many weatherstripping and caulking materials, such as caulking cord, are cheap and easy to use. Most houses and apartments have small gaps around doors and windows that can be quickly sealed. If you want even greater energy savings, you should increase insulation levels in your home, but this will likely take more effort than to count as an easy way to save.

5. Install a Compact Fluorescent

Most lighting in homes consists of ordinary incandescent light bulbs, which convert electricity to light by heating a filament. The technology has not changed much since Thomas Edison. They are horrendously inefficient; only about 10 percent of the electricity used produces visible light, while the rest goes into heat. Since the 1980s, compact fluorescent lighting has

provided an alternative that is three to four times more efficient. Replacing just one 75-watt incandescent bulb with an 18-watt compact fluorescent will save about 570 kilowatt-hours of electricity over the fluorescent's 10,000-hour lifetime. That means, if the mix of fuels used to produce the electricity is typical, just one compact fluorescent will eliminate the burning of 300 pounds of coal. Because fluorescents last longer, you won't have to keep changing the bulb. Over the life of the compact fluorescent, you'll probably save between \$3 and \$15 per year. If you tried compact fluorescents ten years ago and weren't satisfied, give them another shot, since they now have more appealing light quality and come in more shapes and light strengths.

6. Get Rid of that Halogen Torchiere

Many people purchased halogen torchieres because they are inexpensive to buy. But because they use lots of electricity, they are expensive to operate. A single halogen torchiere used eight hours a day can cost \$70 in electricity each year. And halogen torchieres are a fire hazard. Curtains and scraps of paper can be easily ignited by the heat these lamps produce. The Consumer Product Safety Commission has cited these cheap lamps as the cause of 189 fires and 11 deaths since 1992. So, choose a different sort of lighting. A compact fluorescent torchiere will serve the same purpose but will be safer and much kinder to the environment, as well as to your pocketbook.

7. Adjust the Thermostat

The ridicule heaped on President Jimmy Carter in the 1970s for trying to encourage energy conservation by wearing a sweater in the Oval Office has made it difficult to discuss energy-saving measures that risk reducing Americans, comfort. But it makes good economic and environmental sense to try to keep your home slightly colder in winter and slightly warmer in summer. Many people will barely notice a small adjustment in their home's temperature settings. Start by lowering the thermostat one degree in the winter and raising it one degree in the summer. If this doesn't bother you, increase the adjustments by another degree or two. It will cost nothing to make these changes, and you can save money on your heating and cooling bills.

8. Shade Your Air Conditioner

Of course, you will save the most electricity if you don't use an air conditioner at all, but if you are going to use one, you can make sure it is operating efficiently. An air conditioner won't have to work as hard if the outside part is in a relatively cool place. Try to place the air conditioner in a shady location. It's best if it can be on the north side of the building, away from the summer sun. However, note that there needs to be good air flow around the air conditioner, so don't put it in the middle of some bushes.

9. Pull the Plug

Even when they are not in use, many appliances like televisions and VCRs continue to use small amounts of electricity for things like their clocks and remote controls. If you have a rarely used appliance, such as a TV or clock radio in a guest room, pull its plug and then plug it in on those rare occasions when it is going to be used.

10. Turn Off the Computer

Many people have gotten into the habit of leaving their computer and other home office equipment on all the time. This wastes energy and money. Contrary to popular belief, turning on and off the computer doesn't shorten its life. As Lawrence Berkeley National Laboratory points out, "The belief that frequent shutdowns [of PCs] are harmful persists from the days when hard disks did not automatically park their heads when shut off." Lawrence Berkeley reassures us that, "Modern hard disks are not significantly affected by frequent shut-downs. Shutting down computers at night and on weekends saves

significant energy without affecting the performance.” So, if you are going to be away from the computer for several hours, turn it off. In addition, make sure that any power-management features are activated, such as having the screen go dark after 15 minutes of no use.

11. Choose Efficient Appliances

If you need to buy a dishwasher, television, or other appliance, look for a highly efficient one. As a minimum, you should choose one with the federal government's Energy Star label, which means it is significantly more energy efficient than minimum government standards. By more closely comparing energy use labels or looking on the Energy Star website (www.energystar.gov), you can find the best of the efficient appliances. Even if it initially costs a little more, you will very often quickly recover the extra money through savings on your energy bills. For example, there is a 40% difference in electricity use between the most and least efficient 18-19 cubic foot refrigerator currently being sold.

Even if you were not planning on replacing your existing appliances, it may make sense to go out and buy a new efficient one. This is especially true in the case of refrigerators and freezers. They account for about a quarter of an average household's electricity use. New models are much more efficient than older ones, especially if your old refrigerator no longer has tight seals or otherwise performs worse than when you bought it. The average refrigerator today uses only a third as much electricity as a 25-year old one of the same size and with the same features. You may be able to save fifty dollars or more annually on your electric bills by buying a highly efficient replacement model. And you will save a lot of coal, oil, and natural gas from being burned to produce electricity.

If it turns out to make sense to buy a new refrigerator, keep in mind that it is usually a bad idea to keep the old one around for extra food storage. If you really need more storage space, it is more efficient to have one big refrigerator than two smaller ones. On the other hand, you shouldn't purchase a larger refrigerator than you really need, since the bigger it is, the more electricity it will use. Like houses, refrigerators have been getting bigger even while families have been getting smaller.