

Is your bedroom noticeably cooler than the rest of your home? Do you feel an uncomfortable draft when sitting at your kitchen table? In the summertime, is your guest room significantly warmer than other rooms in your home?

If you've answered, "yes" to any of these questions, then you'll probably benefit from getting a home energy audit. A home energy audit assesses the amount of energy your residence uses, as well as what adjustments or improvements you can make to enhance your home's energy efficiency. Though you'll probably encounter initial costs to make improvements, in the long run, these improvements may save you hundreds of dollars annually in energy bills.

You can perform a DIY home energy audit following **Energy.gov's guidelines**, but it's important to understand this isn't as thorough as a professional one. However, it will give you an overall impression of your energy consumption. Once you have a general overview of the situation, you can decide whether you'd like to go ahead and make the necessary adjustments or get a more detailed, professional audit. If you choose to have a professional audit done, inquire with your energy company whether they conduct residential energy assessments. You can also choose to retain an independent auditor; you can check to see if he or she is certified by checking with the Association of Energy Engineers or RESNET.

DIY Home Energy Audits: The Components

- **Locate any air leaks.** Make a list of obvious drafts. Check the seams of walls, ceilings and floors (don't forget baseboards!) to detect air leaks. Next, check any areas where two buildings meet, such as the kitchen and the garage. In addition, review your home's ventilation to check for backdrafts. Backdrafts occur when appliances and exhausts compete for the available air and pull air, as well as any gases or smoke into another room. This is both costly and potentially dangerous. If your heating system is fuel-based, determine whether the appliance receives adequate air. Telltale signs of issues in this area are soot marks around the vent or burner, or smoke in the room where the appliance is located.
- **Check wall, basement and attic insulation.** Insulation plays a vital role in maintaining your home's temperature, so you need to check if you have adequate insulation in spaces adjacent to the exterior. Visual checks of the basement and attics are usually enough. Remember to see if there are vapor barriers in place. When it comes to exterior walls, proceed with caution. Turn off the electricity and, after double-checking the power is off, carefully remove a cover plate from an outlet and insert a long, thin stick to see if there's insulation material. If you're unable to get a visual, slight resistance to the stick indicates the presence of insulation.
- **Inspect your cooling and heating equipment.** Make sure your cooling and heating equipment is in good working order, and change any filters to allow for smooth operations. Consider replacing appliances that are older than 15 years by new, energy efficient ones to reduce your energy consumption.
- **Lights.** Lighting accounts for an amazing 10% of your energy bill. Inspect all lights in your home to see if you can replace existing bulbs with energy efficient ones such as LEDs, compact fluorescent lamps or energy-saving incandescent lamps.

- **Electronics and appliances.** Assess how much energy these devices consume by reviewing how much you use them. Then consider energy-saving strategies such as unplugging items or using them less often. If any devices need replacing, choose energy efficient products.
If you hire a professional auditor, he or she may perform a blower door test or a PFT air infiltration measurement to determine how airtight your home is. In addition, a thermographic inspection to pinpoint air leaks and thermal defects will most likely be performed. For the most accurate results, remember to ask ahead of time for guidelines on how to prepare your home before your appointment.

Performing a home energy audit might take time, but it's worth it to find out how you can make your home more energy-efficient. And in the long run, you'll not only notice the results in your bank account: your home will be more comfortable, too!