

# Energy 101: Home Energy Checkup

*The video opens with "Energy 101: Home Energy Checkup." A computer-generated image shows money flying out of the windows of a house.*

In any season, a leaky home costs money. How do you stop it? It starts with a comprehensive home energy checkup.

*The video switches to a shot of an inspector walking through a house and doing various tasks: reading an infrared gage, putting on a mask, checking the insulation, checking wiring in the attic, checking lighting fixtures.*

That's a series of tests and inspections to find out where your house could be more efficient.

The end goal is to save energy, save money, *and* make your house more comfortable. Installing energy efficient lighting and appliances will help. So will creating a sealed barrier around your house, kinda like putting a blanket around the outside, minimizing the leaks.

*The video returns to the animation, this time showing a giant blanket wrapping the house and blocking the flow of money that's flying out of the windows.*

Upgrading your home to save energy can put anywhere from 5 to 30% of your energy bill back in your pocket.

To get a thorough home energy check-up you'll need some help from a professional... Look for a home energy technician—called an "auditor"—in your area.

In this cold weather evaluation, the auditor starts on the outside, looking for problems around walls, joints and under the eaves. If there's not a tight fit, you're losing energy and money.

Next, the technician might head up to your attic to check for leaks on the top of your home barrier. That trap door could be a culprit—letting cold air pass into the house.

A big part of the check-up is determining how well the insulation insulates. Insulation should be correctly installed in between all areas of the house frame. That means it needs to be evenly applied and not just jammed into spaces. And, of course, if the insulation has fallen down, it's not working.

Your energy auditor will inspect the holes where electrical lines pass through. If they're not sealed, they're leaking.

Then it's down to the basement. Your furnace and water heater could be wasting energy.

The auditor will check to see how energy efficient the furnace is. Furnaces generally lose efficiency as they get older and it could cost you more to keep yours running than to replace it with a new one.

Maybe all you need is a new filter. Some people haven't changed their filter for months—even years. That gunk clogging the filter means your furnace has to work harder to heat your home.

If the water heater is several years old, it may not be efficient. And if it isn't insulated, it's also losing energy.

Now, it's on to the ductwork. The technician will inspect connections to make sure they make a tight fit. They have to be sealed to keep the warm air going where it's supposed to go. If the screwdriver can go in the hole, it means one thing for sure: Money is going out!

Now for the blower door test. The energy auditor will close all the windows and doors and anything else that lets outside air in. This special fan will depressurize the home. The idea is to suck air out of the house, allowing outside air to rush into the home through all those openings you didn't know about.

*The video shows the auditor covering the door with a large plastic tarp, which blocks the door around a giant fan. He turns it on and then begins reading an infrared gage that shows temperature differences in the home.*

With the windows and doors closed and the fan running, leaks are easy to spot with an infrared camera. In winter the auditor will scan the interior of the home looking for cold air rushing in. Here, the darker the color, the worse it is. These black spots mean one big air leak. It's an eye opening experience.

For this house, the recessed lighting fixtures are big problems. The auditor will also take a look at the kinds of light bulbs in those fixtures. If they're incandescent, they're using a lot of energy. Warm compact fluorescents are an energy saving alternative.

So, the home energy assessment reveals the ways that energy escapes your home, costing you money. The good news is, you'll have a comprehensive home energy report showing which efficiency upgrades are right for you and where to stop those pesky leaks.

*Caption: Energy 101: Home Energy Checkup. For more information, visit [www.energysavers.gov](http://www.energysavers.gov)*