

Step-by-Step Home Energy Assessment B-Roll

Scene-by-Scene Description

Get the facts behind the footage available on the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) B-Roll Web site at eere.energy.gov/news/b_roll.cfm.

Video Title: Home Energy Assessment B-Roll

Video Only/No Audio

Location: Denver, Colorado

Shoot Date: March 19, 2010

Total Running Time: 10:47

- Scene 1:** 00:05: Blower door test. A powerful fan mounted within the frame of an exterior door pulls air out of the house, lowering the air pressure inside. Outside air flows through all unsealed cracks and openings into the depressurized home. Home energy technicians use pressure and airflow gauges to measure how airtight a home is and to identify leaks.
- Scene 2:** 01:05: Infrared camera inspection with homeowners. Also known as a thermographic inspection, home energy technicians use infrared video cameras to see temperature variations ranging from white for warm regions to black for cooler areas. These tools help the technician determine where insulation is needed and whether existing insulation was installed correctly.
- Scene 3:** 02:27: Exterior inspection. Gutters and downspouts are inspected for proper installation to avoid leaks, overflow, and soil saturation at the foundation. Vents are inspected for proper operation and installation gaps.
- Scene 4:** 03:14: Attic inspection. Home energy technician examines for holes and spaces between insulation and ceiling, walls, and electrical wires and checks the insulation type and rating. Adequate insulation and proper installation can minimize heat loss through the ceiling.
- Scene 5:** 04:16: Inspecting for insulation around electrical outlet. Example of blown-in cellulosic insulation.
- Scene 6:** 04:47: Inspecting for insulation around floor vent. Example of blown-in cellulosic insulation.
- Scene 7:** 05:23: Inspecting for insulation around electrical outlet. Example of bat insulation.
- Scene 8:** 05:51: Inspecting for insulation around floor vent. Example of bat insulation.
- Scene 9:** 06:20: Inspection of energy-efficient appliances. ENERGY STAR[®] labels appear on appliances and home electronics that meet strict energy efficiency criteria established by the U.S. Department of Energy and the U.S. Environmental Protection Agency. The program includes most home appliances.

- Scene 10:** 06:39: Checking for energy-efficient lighting. Simply changing light bulbs from incandescent to compact fluorescent can save up to 75% on a home's lighting costs. Additional technologies and practices can help save even more.
- Scene 11:** 07:13: Checking for ceiling fan. Properly-used ceiling fans can significantly increase the efficiency of a home's heating and cooling systems.
- Scene 12:** 07:36: Inspecting duct work. Holes or cracks between fittings or improper installation can cost you money as air escapes instead of heating or cooling living spaces.
- Scene 13:** 08:36: Inspecting thermal boundary on the ground and against the foundation and open vents in crawl space. A layer of 6-mil polyethylene will prevent soil moisture from migrating into the crawl space and compromising the home's envelope.
- Scene 14:** 09:27: Inspecting water heater for age, insulation, and water pipe insulation. Water heating can account for 14-25% of all the energy consumed in a home¹.
- Scene 15:** 09:57: Inspecting furnace for age and efficiency. On average, heating accounts for 56% of all home energy costs². Simple maintenance, such as changing furnace filters every one to three months, can significantly affect a furnace's efficiency, as can seasonal professional inspections of a home's heating system.

Learn More about Home Energy Assessments

A home energy assessment, also known as a home energy audit, is the first step in determining how much energy a home uses and what measures can be taken to make a home more energy-efficient. The U.S. Department of Energy's *Energy Savers* Web site (energysavers.gov) offers comprehensive information on home energy assessments, including how to perform a self-assessment, how to hire a professional, and information on appliance rebates, federal tax credits, and the Weatherization Assistance Program.

¹ <http://www.energy.gov/waterheating.htm>

² <http://www.energy.gov/heatingcooling.htm>