



Home Energy Assessment

Priority: High

Difficulty Level - Easy to Moderate: Requires no specialized technical skills or background.

Time commitment - 2 to 4 hours.

Physical requirements - Involves climbing ladders and crawling into attics.

Purpose

The home energy assessment is the fundamental baseline to identify how efficient a home is and what is needed to upgrade its efficiency.

- The purpose of a DIY home energy assessment is to pinpoint where your house is losing energy and identify low-cost fixes to lower your utility bills. It is a great first step in identifying issues and creating a prioritized plan to reduce energy costs, improve comfort, and enhance safety by detecting air leaks, insulation gaps, and ventilation issues.

Examples of areas in your home that a home energy assessment addresses:

- Locate air drafts: Find hidden gaps letting conditioned air escape.
- Evaluate insulation issues: Identify areas where insulation is too thin, compacted, has gaps or is missing.
- Spot energy “vampires”: Pinpoint outdated lighting and inefficient appliance settings.
- Prioritize home upgrades: Create a list of ways you can improve the energy efficiency of your home and set priorities based on initial cost, estimated savings over time, and difficulty level.

Indicators that this Action is worth doing in your home

The home energy assessment is the fundamental baseline to identify how efficient a home is and what is needed to upgrade its efficiency.

Video: [Carry out a home energy assessment](#)

Materials Needed

- Checklist of areas of the home to inspect
- Screwdriver (to pop off outlet covers)
- N95 Mask & Gloves
- Flashlight: Illuminates dark attic corners and basement rim joists.
- Incense stick or tissue paper: Reveals subtle air drafts near windows.
- Notebook: Record problem areas and needed materials.
- Tape measure: To measure the thickness of existing insulation.

Directions

- Conduct a draft test: Close all windows, turn on exhaust fans, and pass lit incense or a piece of tissue around window and door frames to watch for movement of the tissue (or movement of the smoke from the incense), indicating movement.
- Inspect the attic: Measure insulation depth to ensure it meets guidelines (The U.S. Department of Energy (DOE) and Energy Star recommend a cost-optimal target of R-49 to R-60 for attic insulation).
- Check exterior doors: Look for visible daylight around the edges of closed doors.
- Check attic access areas (attic hatch, pull-down stairs, or attic door): Turn on attic light or have someone in the attic shine a flashlight at the access and look for visible light coming around the edges of the access (hatch or door).
- Examine the HVAC system: Check filter cleanliness and look for unsealed duct joints. Also ensure the exterior unit is free from debris.
- Assess your lighting: Count incandescent and CFL bulbs that should be upgraded to LEDs.
- Review utility bills: Analyze past usage patterns to spot unusual spikes in energy use.

Tips

- Do your home assessment on windy days: Severe outdoor pressure differences make air leaks much easier to locate.
- Photograph problem areas: Visual records make finding parts at the hardware store simpler.
- Check electrical outlets: Add foam gaskets behind faceplates on exterior-facing walls.
- Inspect the water heater: Lower the temperature setting to 120°F (49°C) to save standby energy.