

Home Energy Audit Procedure

This playbook provides a structured approach to performing a home energy audit. It is designed to guide individuals through the sequential steps for evaluating their home's energy usage and identifying opportunities for energy savings.

Step 1: **Preparation**

Gather all necessary materials such as a flashlight, ladder, notebook, pen, and a measuring tape. Additionally, collect past energy bills for reference.

Step 2: **Exterior Inspection**

Examine the outside of the home for any signs of damage or areas where air might be entering or escaping, such as windows, doors, and vents.

Step 3: **Interior Inspection**

Inside the home, check for air leaks using a draft detector or incense stick. Look around windows, doors, electrical outlets, and light fixtures.

Step 4: **Insulation Check**

Inspect the attic, walls, and floors to assess the level and quality of the insulation. Ensure it meets the recommended guidelines for your geographic region.

Step 5: **Heating/Cooling Systems**

Review the age, condition, and maintenance history of your heating, ventilation, and air conditioning (HVAC) systems. Consider opportunities for upgrades or tune-ups.

Step 6: **Appliance Assessment**

Analyze the efficiency of home appliances, including the refrigerator, dishwasher, washing machine, and dryer. Note their age and energy ratings.

Step 7: **Lighting Evaluation**

Record the types of light bulbs used throughout the home. Consider replacing incandescent bulbs with energy-efficient LEDs or CFLs.

Step 8: **Behavioral Factors**

Observe household habits that may impact energy consumption, such as the temperature settings on the thermostat, the duration of showers, and standby power usage.

Step 9: **Data Analysis**

Review all gathered information and cross-reference with past energy bills to find patterns and areas with the highest energy usage.

Step 10: **Improvement Plan**

Develop a prioritized list of potential improvements based on the audit findings to maximize energy savings, beginning with simple, low-cost measures.

Step 11: **Implementation**

Start executing the improvement plan, addressing quick wins immediately such as sealing air leaks or changing light bulbs, and planning for larger upgrades.

Step 12: **Follow-up**

Monitor energy bills following the implementation of changes to gauge the effectiveness of the audit and make necessary adjustments to the improvement plan.

General Notes

Professional Help

Consider hiring a professional energy auditor for a more thorough assessment, especially for complex heating and cooling systems or structural elements.

Incentives

Look into local government or utility rebates and incentives for making energy-efficient home improvements.

Seasonal Considerations

Energy efficiency can be affected by seasonal changes, so consider conducting audits at different times of the year for comprehensive understanding.