



A staggering **21%** of the all energy used in the United States is used in homes. Where does all of the energy go?

- \* **Heating and cooling** uses around **40%** of the energy consumed in a home.
- \* **Water heating** uses around **20%**.
- \* **Appliances**, including refrigeration, uses around **15%**.

These energy users can also be areas where energy savings can be achieved.

High energy costs are often a symptom of an unhealthy home. A healthy, well-functioning home is one that has a balance of heating, cooling, and air flow. An unbalanced home can have problems relating to airflow, temperature differentials, and moisture accumulation. A home energy audit is the first step to determine how much energy a home uses and opportunities where energy can be saved. The survey/audit can discover inefficiencies in a home and provide solutions for increased efficiency.

An accredited Provider or a program may apply this standard to improve the energy performance of existing homes through uniform, comprehensive home energy audits for existing residential buildings. This standard is intended to result in investments by building owners that produce the following outcomes:

- ☑ Increase the energy efficiency of homes.
- ☑ Increase the comfort of homes.
- ☑ Increase the durability of homes.
- ☑ Ensure that energy improvement recommendations are portrayed with reasonable and consistent projections of energy savings.
- ☑ Reduce the risk that energy improvement recommendations will contribute to health, safety, or building durability problems.
- ☑ Reduce waste and pollution, protecting the environment.

## HOME ENERGY AUDIT

**Inspection:** Most problems associated with high energy costs and low comfort levels arise from leaks in the building envelope as well as inefficient mechanical components of the home. Therefore, a full inspection of the home's envelope requires a thorough evaluation of your entire home including the attic, the HVAC system, windows, crawl space or basement, the slab, air barrier, etc.

**Diagnosis:** The inspection yields a diagnosis of the major energy, health, durability, and safety issues of your home.

**Recommendations:** Based on the diagnosis, we provide a systems-based home energy strategy with both immediate and long-term solutions.



## TESTING SERVICES:

### Leakage in the HVAC System:

**Duct Blaster Test:** To address the hot and cold spots of your home, as well as any possible heating or cooling loss through the duct system, we perform a Duct Blaster Test. This test locates any problem areas and quantifies the extent of the leakage. Once the source of the leak has been pin-pointed, remedial actions can be undertaken to seal the duct system.

### Leakage in the Building Envelope:

**Blower Door Test:** This test quantifies the amount of leakage in the home's envelope. In short, it locates holes and leaks in the home by depressurizing the building. It also aids in finding air barrier and insulation flaws.

### Heat Loss/Gain Detection:

**Infrared (IR) Imaging Test:** In conjunction with the blower door, this test uses an infrared camera to conduct a more sophisticated, in-depth analysis for intractable problems. Therefore, it is only necessary as the next step for hard to solve building issues, such as thermal bypass and moisture problems.

## ADDITIONAL SERVICES:

**Carbon-Monoxide Detection:** A safety test that measures the amount of carbon monoxide emanating from household combustion equipment (such as the furnace, hot water heater, stoves, garage, fireplace, pellet/wood burning stove, etc.)

**Moisture Test:** Related to building durability, this test involves the installation of a data logger that measures relative humidity, temperature, and dew point over time. This information provides us with that data needed to comprehend where and why the problem is occurring, allowing us to develop a mitigation process.

**Indoor Air Quality Diagnostic:** This test measures the rate of fresh air exchange in your home to create a healthier, cleaner, relatively dust-free, and more comfortable home.

