



**Kansas City**

**Board of Public Utilities** • 540 MINNESOTA AVENUE • KANSAS CITY, KANSAS 66101 • (913) 573-9000

## Economic Development and Retail Services Department

### Energy Audits

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#### **What is an energy audit?**

Interest in energy audits has recently increased as a result of growing understanding of human impact upon global warming and climate change. Buildings are complex and contain numerous systems that interact, sometimes in not so obvious ways unless you are properly trained to understand these dynamics. You'll want to have the assessment and then improvement performed right the first time by making sure both parts of the process are completed by certified professionals

An energy audit is an inspection and analysis of energy flows in a building with the objective of understanding the energy efficiency home or building being audited. Typically an energy audit is conducted to seek opportunities to reduce the amount of energy used by the home or facility without negatively affecting the comfort of the home or the production/output in case of a business. This includes identifying the systems and areas of opportunity that will have the greatest impact in improving comfort, indoor air quality, durability & reliability, energy efficiency as well as the health and safety of the occupants.

#### **What is the value of an energy audit?**

The U.S. Department of Energy estimates that having an energy audit performed on your home and making the suggested recommendations like sealing cracks, leaks and properly insulating your home could save you 25 percent or more on your yearly energy consumption. Depending on the size of your home and the extent and type of energy-efficiency upgrades performed, your savings will vary. The cost of a CCF of natural or propane gas and the cost of a kWh of electricity will affect your yearly savings. However, your savings could be from several hundred dollars to over a thousand dollars per year.

#### **How do I prepare for an energy audit?**

Before an energy auditor visits your home, make a list of any existing problems such as condensation, uncomfortable and/or drafty rooms. Utility bills should be collected for 12 to 36 months for the auditor to evaluate the home or facility's energy consumption history and energy usage profile. Auditors also use this information to establish what to look for during the audit.

#### **What types of energy audits are available?**

- Historical Data Analysis – Utility bills are collected for 1-3 years to evaluate the home or facilities energy consumption history and energy usage profiles.
- Do-It-Yourself Home Energy Audits – A diligent do-it-yourself walk-through is performed to gather a check list of needed repairs or changes to increase home energy efficiency. By sealing cracks and leaks, a 5-30 percent savings can be realized on heating bills over the winter months.
- Walk-through Audits – A brief review of the home or facilities utility bills and other operating data will be examined, along with a walk-through of the home or business to become familiar with the building operation to help identify glaring areas of energy waste or inefficiencies.
- Professional energy audit by certified energy auditor/energy rater – Many professional energy audits will include a blower door test. Most will also include a thermographic scan and will identify all energy conservation measures appropriate for the home or business.

#### **Where do I find a good energy auditor and what should I look for?**

The first step is to look for a Building Performance Institute (BPI) Certified Building Analyst or other Certified Energy Auditor from a reputable certifying organization. Try to select an auditor who has real-world experience and who uses the proper tools to perform the audit. When choosing an auditor for a "professional energy audit," ask them if they use a:

- Combustible gas leak detector
- Carbon monoxide analyzer
- Combustion analyzer
- Digital manometer
- Blower door
- Duct leakage test
- Thermal imaging camera

Reference: [Wikipedia](#), Reference: [U.S. Dept. of Energy](#), Reference: [GARD Analytics, Inc.](#)

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