

HOME ENERGY AUDIT SERVICES

Are you looking to improve the performance of your home? SWA can inform you on the most cost-effective strategies to spend money on home energy improvement. The auditing process helps determine problem areas in your building structure and systems and suggests solutions for reducing consumption of electricity, gas, and water.

With 3 basic steps, SWA staff can help you on the road to lower utility bills.

- 1) Inspection – Determine where you are wasting energy
- 2) Performance Testing – Quantify your home's performance
- 3) Energy Modeling – Quantify the potential energy savings

Each project is different, because each home and each occupant is different. SWA's staff will work with you to find the best approach for each situation. Using this information, you will be better informed to select the most appropriate measures to improve comfort, health, and safety while simultaneously reducing energy costs.



The following services are typical home energy audit services offered by Steven Winter Design (SWD), a division of Steven Winter Associates, Inc.

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| 1. SWD energy auditor(s) will visit your home and inspect the building envelope, heating and cooling systems, lighting, and appliances. Inspectors will tour the home with you, answer specific questions, address energy or comfort complaints, and make recommendations for improvement. |
| 2. SWD auditors can perform a blower door test to identify and quantify air infiltration – a major cause of energy and comfort issues in homes. While many air leakage pathways may be identified during the inspection, this test will give both the client and SWD a better indication of where and how much air leakage is occurring. |
| 3. If the home has forced air heating and/or cooling systems, SWD auditors can perform a duct leakage test to measure leakage from the forced air ducts. This is especially useful if many of the ducts are located outside of conditioned space (e.g. garage, attic, etc.). A separate duct leakage test is required for each duct system (each furnace or air handler). A blower door test is required for useful duct leakage results. |

4. Some of SWD's recommendations for home improvements may involve air sealing which can possibly affect the operation of combustion equipment. SWD can perform combustion tests on appliances (furnaces, boilers, water heaters, gas ovens, etc.) to measure efficiency and to ensure they are operating safely.
5. Infrared imaging is a useful means to evaluate heat transfer pathways in homes. SWD can perform imaging on the home to identify potentially large losses. (Accurate infrared imaging is very sensitive to sunlight and temperature conditions and may require special scheduling).
6. SWD can perform an analysis of utility bills . Seasonal differences in electricity, gas, or oil use can give insights into how and where energy is used in the home. A utility release form is required so SWD can obtain records from gas or electric utilities.
7. If desired, SWD can perform energy modeling (using REM/Rate or TREAT software) to predict overall energy use as well as energy and cost savings from proposed energy savings measures.
8. SWD will write a letter report describing the findings, test results, and specific recommendations for improving the efficiency and/or comfort of the home.
9. Based on modeling, testing, and inspection results, SWD can also generate an official HERS rating (Home Energy Rating System) for your home. HERS ratings are sometimes required for various utility or government incentives for home energy efficiency.

Our fees for the above services as of October 2007 are as follows:

1. Basic Inspection for homes up to 4000 ft ² , includes travel within 30 mile radius of Norwalk, CT	\$375
2. Blower Door test	\$125
3. Duct Leakage Test (blower door test is also required)	\$150 per air system
4. Combustion safety/efficiency tests	\$75 per appliance
5. Infrared Imaging	\$175
6. Utility Bill analysis	\$75
7. Energy Modeling	\$300
8. Letter Report	\$500
9. HERS Rating (blower door and energy modeling are required; duct blaster testing is required for homes with forced air heating or cooling)	\$100
10. Costs for larger homes, extra travel, etc. are priced for specific homes.	



Steven Winter Associates, Inc.
50 Washington St.
Norwalk, CT 06854
203-857-0200
www.swinter.com



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