Residential Energy Auditing
An Energy Audit generally consists of:

- A thorough inspection of the interior and exterior of the home using a holistic approach
- Client education and being educated by the homeowner
- Diagnostic/health and safety tests
- Creating a computer model (TIPS, TREAT, EmpCALC)
- Development of a comprehensive work scope
The House as a System
Exterior Inspection
Siding Types

May 2015
New York State Weatherization Directors Association
Special Considerations

Brick

Lead Based Paint
Transite siding may contain asbestos
Interior Inspection
Customer Interview
Client Questionnaire

NYS DIVISION OF HOUSING AND COMMUNITY RENEWAL
WEATHERIZATION ASSISTANCE PROGRAM
DHCR # 11

CLIENT QUESTIONNAIRE

Unit # ____________________________ Building Address ____________________________

HEATING, HOT WATER

1. How long have you lived here? .................................................................................. Q Yes Q No
2. What is the heating system operating today? .............................................................. Q Yes Q No
3. Has any work been done to your heating system in the past 2-3 years? .................. Q Yes Q No
4. Have you used a separate space heater during the winter months? ..................... Q Yes Q No

What type? ........................................................................................................ Q Electric Q Harmful Q Other

5. How often is it used? .................................................................................................. Q Yes Q No

When was the last time the chimney was cleaned? .....................................................

6. Do you use a wood stove? ......................................................................................... Q Yes Q No

7. How much wood did you use during the last heating season? .............................. Q Yes Q No

8. Did you use your cookstove for heat during the past winter? ................................. Q Yes Q No

What type of fuel is your cookstove? ........................................................................... Q Yes Q No

9. Does your home or certain rooms ever get too warm? .......................................... Q Yes Q No

If yes, explain where .................................................................................................. Q Yes Q No

10. Does your home or certain rooms ever get too cold? ............................................. Q Yes Q No

If yes, explain where ................................................................................................ Q Yes Q No

11. When was the last time your heating system was cleaned and tuned? .............. Q Yes Q No

12. Do you change your furnace filters regularly? ....................................................... Q Yes Q No

If yes, when was the last time? .................................................................................. Q Yes Q No

13. Do you have a humidifier? ...................................................................................... Q Yes Q No

14. What is the highest setting? ....................................................................................

What is the lowest setting? .........................................................................................

15. Where is the thermostat located? .......................................................................... Q Yes Q No

16. Do you have any smoke detectors? ..................................................................... Q Yes Q No

If yes, which room? .................................................................................................... Q Yes Q No

17. Do you have an air conditioner? ........................................................................... Q Yes Q No

If yes, what type? ........................................................................................................ Q Yes Q No

HEALTH & SAFETY

18. Do you or any member of your household suffer from frequent headaches, flu, colds or nausea during

the heating season? .................................................................................................... Q Yes Q No

19. Are you or any member of your household have medical problems that are irritated by high heat? 

If yes, is the affected person presently receiving doctor's care for the problem? ........ Q Yes Q No

20. Is there any condensation build-up in your home? ............................................... Q Yes Q No

If yes, where? ............................................................................................................. Q Yes Q No

21. Is there mold or moisture in your home? ............................................................... Q Yes Q No

22. Does your basement get wet during certain times of the year? ......................... Q Yes Q No

If yes, where and when? ............................................................................................ Q Yes Q No

23. Does ice form in your attic during the winter? ..................................................... Q Yes Q No

24. Is the house built up on your roof during the winter? .......................................... Q Yes Q No

25. Does your roof leak? .............................................................................................. Q Yes Q No

26. Has your home been certified as free from lead-based paint? ......................... Q Yes Q No

27. Has any member of your household been tested for lead exposure? ............... Q Yes Q No

If yes, what were the results? ..................................................................................... Q Yes Q No

28. Did you receive the lead booklet entitled "? .......................................................... Q Yes Q No

VISUAL INSPECTION COMMENTS OR CONCERNS NOTED BY AUDITOR

______________________________________________________________________________

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The Basement
Venting Disconnects are common
Dryer fire caused by plugged lint trap
The Attic
Diagnostic/Health and Safety Tests
Carbon Monoxide Testing - Ambient and in Oven
Gas Leak Detection
A small gas leak at the pilot burner control blows bubbles in the gas leak detector fluid. Auditor should call for repair.
CAZ Zone Depressurization

Make sure the fumes are going up the chimney not dumping back into the house
Steady State Efficiency Tests
Combustion Analyzer
Drilling the Draft Test Hole
Measuring chimney draft
Worst Case Draft
Blower Door

Blower Door Depressurization Test

- Attic Leaks
- Blower Door: Door Panel, Fan, Gauges
- Fan Draws Air from House
- Outgoing Air
- Air Drawn In by Fan
- Calculate Leakage from House Pressure and Airflow Rate

May 2015
New York State Weatherization Directors Association
Digital Manometer
Infrared Camera
Computer Modeling
Modeling and the Savings to Investment Ratio (SIR)

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TOTAL: 66,960, 100%

30,500 BTU/hr  Not to be used for steam

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The End Game is:

Work scope development that will provide the most benefit to the customer