# **About Active Energy Engineering**

With Active Energy Engineering (AEE) your Energy Audit or Indoor Air Quality (IAQ) testing will be conducted by one of our BPI licensed professionals that are also degreed engineers. AEE auditors are experts in building science, IAQ, Heating, Ventilation, and Air Conditioning (HVAC), and electrical related aspects.

If you choose to have measures completed by AEE the work will be completed by our on-staff licensed and insured mechanical contractors and BPI licensed energy auditors. When choosing AEE you know you have the right people for the job. To validate that level of performance AEE was presented with the "Highest Average Energy Savings per Customer" award from Consumers Energy. This award ensures you, the customer, that AEE does everything possible to make sure you save the most amount of energy possible.

#### Why should I go with AEE rather than other companies?

Active Energy Engineering prides itself with providing the most comprehensive energy audit available. We guarantee you will not find a more comprehensive energy audit. Audits are approximately three to four hours in length.

You will receive a personalized comprehensive report that recommends approximately 15-25 individual measures you can do to save money on your energy bills and make your home more comfortable.

Unlike our competitors, this report will be very detailed and will identify every possible option available to increase both efficiency and comfortability. Each suggested measure will include the following information:

- Measure Title
- Where you currently stand and should be on the topic area
- Process that should be followed to solve the problem
- Up-front Cost
- Applicable Rebates
- Final Cost
- Estimated Annual Savings (Based on software model predictions)
- Return on Investment (ROI) Timeframe (Years before investment is realized by savings)

With this comprehensive set of information along with all of the test data collected during the audit you will be able to make educated decisions on the improvements you would like to implement. AEE is available by phone, email, or in person to answer any questions about our comprehensive reports. In addition - unlike some other companies - we will actually execute the documentation required in order to get you the rebates we promise you. With AEE your rebate check is 100% Guaranteed!

Most importantly, your analysis will be completed by real degreed engineers that are experts in thermal and building science. Simply put we will never suggest you do something that you will not see a return on investment on within a reasonable amount of time. Finally, AEE is actually capable of implementing all of the work that we recommend. We are a one stop shop for completing all of your energy efficient upgrades.





# **Comprehensive Energy Auditing**

At Active Energy Engineering (AEE) we specialize in comprehensive **energy analysis auditing for residential**, **commercial**, **and industrial customers**. During the audit process our BPI licensed engineers will utilize sophisticated equipment to conduct tests in all of the following areas:

- Analyze your last 12 months of energy usage to set a baseline for your future savings and understand where
  your money is being spent. AEE will also provide you with a baseline of what an average bill should be for your
  household. This data also provides a basis for the Return on Investment (ROI) calculations.
- **Detailed interior and exterior building material check** (ensures the home building materials are in good condition). The auditor will identify all areas for improvement with the building's shell and areas inside the home.
- Combustion appliance safety checks (furnace, hot water heater, boiler, stove, oven, etc.) to ensure you and your family are safe from harmful gases (i.e. carbon monoxide, gas leaks, etc). This is our Top Priority!
- Combustion analysis to identify the operational efficiency of your home appliances. This testing will also ensure all combustion appliances are properly exhausting all of the harmful gases and are operating at their advertised efficiency level. Our goal is to ensure you and your family are not being exposed to harmful gases under any condition.
- Complete detailed check of all HVAC related equipment (furnace, boiler, AC unit, ducting, etc). An AEE auditor will identify if the products are running efficiently and recommend replacement only when needed.
- Air flow inspection to ensure air flow rates and the temperature coming out of your supplies and exhaust fans are optimal. This is one of the many ways to diagnose hot/cold rooms and ensure proper air distribution.
- Diagnosis of any trouble areas you may have in your home (e.g. hot or cold rooms, damp areas, leaks/drafts, high electrical usage, ventilation, condensation, etc.).
- **Complete insulation inspection** to identify your effective level of insulation and suggest upgrades if needed. All areas are inspected (attic, floor, crawl space, walls, rim joists, knee walls, etc.)
- Blower door testing to identify how leaky your home is and ensure proper ventilation is available. Before this testing your auditor will calculate the target level for your home. The auditor will then run the test to identify your level of air leakage. This information will provide a baseline to start sealing your home. It will also easily identify all the leaks you may have in your home. This tool is used in conjunction with the following step.
- **Detailed thermal imaging inspection** to find air leakage and trouble areas. This will take place while the blower door test is running. AEE will utilize state of the art thermal imaging technology to identify air leakage and weak areas for the customer. We also provide numerous pictures (digital and thermal) in your report from this testing.

Within a maximum of two days of your audit's completion, you will receive a **detailed report** of our findings. The report will suggest approximately 15-25 measures that you may choose to implement. Each measure will describe the **exact task**, **estimated annual savings**, **cost**, a **return on investment time frame**, **utility and tax rebate information**, and **our recommendation**. Our goal is to provide you with the most comprehensive energy audit possible. We will not be satisfied until **you are saving money every month** on your utility bills and you have **received every possible rebate/incentive** for the work we are doing for you.





### 13 STEP ENERGY AUDIT PROCESS FLOW SCHEMATIC

- The schematic below describes each step that Active Energy Engineering (AEE) follows throughout the energy audit process. The customer is an integral part of each step.
- Steps 1-12 can be completed in as little as one week.
- All rebate paperwork is completed by AEE.
- Rebates are submitted within 24 hours of measures being completed.
- Rebates are paid by the utility company in the form of a check in a maximum of 8 weeks.







# **Active Energy Engineering Services**

Active Energy Engineering (AEE) offers a large variety of energy efficient upgrade services. These services are provided by AEE employees, not outsourced like our competitors. AEE is a licensed and fully insured company. A detailed list of the services offered by AEE is shown below:

- Comprehensive Energy Audits
- Indoor Air Quality (IAQ) Testing
- All types of Insulation Installation:
  - Attics
  - Above or Below Grade Walls
  - o Rim Joists
  - o Floors
  - Crawl Spaces
  - Water Lines and Tanks
- IAQ Improvements (Ventilation, Radon Mitigation, Filtration, Make-Up Air, etc)
- Heating and Cooling Installation (Furnaces, A/C Units, Water Heaters, etc)
- Diagnostics
- HVAC System Sizing and Design
- Thermal Imaging
- Duct Work System Design and Sizing
- Airflow Testing and Duct Balancing
- Radon Testing
- Furnace and Air Conditioner Tune Ups

When you choose AEE, your services will be performed by the best professionals available. We look forward to completing your job on budget and schedule!



**ENERGY AUDITS • IAQ • INSULATION • HVAC** 



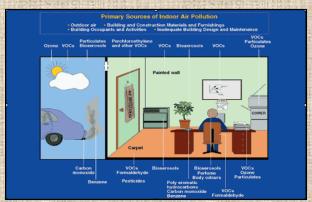
# **Indoor Air Quality (IAQ) Testing**

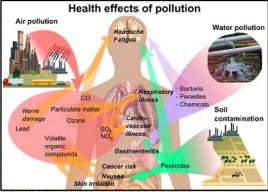
Active Energy Engineering (AEE) offers full-scale IAQ testing and mitigation services. Our extensive set of fully calibrated equipment allows AEE to test for all known IAQ issue areas. As a result, your home or business will undergo one of the most comprehensive IAQ inspections possible. Upon completion of this testing you will receive a customized report that summarizes your results and identifies all recommended mitigation steps you can take to improve your IAQ. The AEE Indoor Air Quality inspection tests for all of the following:

- Air Temperature and Temperature Distribution (°F)
- Relative Humidity (%RH)
- Barometric Pressure (Pa)
- Volatile Organic Compounds (VOCs) (Over 440 different types)
- Formaldehyde (CH<sub>2</sub>O)
- Ozone (O₃)
- Oxygen (O<sub>2</sub>)
- Carbon Monoxide (CO)
- Carbon Dioxide (CO<sub>2</sub>)
- Radon (Rn)
- Molds (when applicable)

**Elevated Concentrations of:** 

AEE offers four different IAQ testing packages to meet your needs. See our website for package pricing and for great tips on increasing your home's indoor air quality.







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