

A Practical Guide to Picking a Quality Energy Auditor

Revised April 2018

There are several problems that work against building owners and operators when trying to find a company to perform a good energy audit for you.

- Everybody and their sister brother now claims to do energy audits
- Even with ASHRAE guidelines and standards for energy audits, there is still disagreement on exactly what an energy audit is

In this paper, we are going to cover these problems, provide guidance on how to select a quality energy auditor, and hopefully help you avoid getting ripped off.

Everybody and their Sister Now Claims to do Energy Audits

Energy and sustainability consulting, particularly as a means of driving capital investment decisions, is a market sector that has continued to grow over time. And with the focus on the regulatory environment, corporate and social responsibility, and cost-cutting you have a new service offering for companies that have seen their core sales flatline or decline. We are seeing real estate management companies and brokers, electrical and mechanical contractors, insulation contractors, and equipment sellers all trying to sell and perform energy audits.

On top of that, some of the very large companies have entered the market. They might sell and perform an energy audit to obtain a much larger sale later down the line. As concepts like subscription-based energy management and so-called smart buildings proliferate, firms that manufacture, distribute or service products associated with these concepts see energy audits as a means to get a foot in the door. The results of those audits might include recommendations for installing their owned or favored products. Some building operators have experience with building automation systems with a steady stream of product and software upgrades, which later become required for the system to function properly.

There is a good and a bad to the rush into energy consulting. The good is that with more competitors, costs go down and customers have more choice. There are specialties that you might need or corporate cultures more in line with your organization's mission. The bad is that with the decreased costs associated with less experienced labor, the quality of the work suffers as well. Companies new to auditing often have inexperienced auditors and lack appropriate quality controls, which can produce some very poor quality audits.

Every Company has a Different Idea of What an Energy Audit is

The term "energy audit" has different meanings according to different audiences. Two different companies could theoretically perform an energy audit, and one could spend 5 hours with a clipboard and Excel spreadsheet, and the other 80 hours with data loggers and complex modeling software. With this type of variation in audits, the customer and the auditor often had different ideas in mind on just what was to be done.

The American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) has taken important steps to clarify just what should comprise an audit. ASHRAE has defined the requirements for 3 levels of audits, entitled ASHRAE Level 1, ASHRAE Level 2 and ASHRAE Level 3 audits. Because of this, a customer *should* be able to ask for a Level 2 audit, and all the vendors bidding on that audit should be able to deliver the same level and quality of report. Unfortunately, this is far from the case.

You Get What You Pay For

Through a series of sometimes painful experiences we've all learned that you really do get what you pay for. According to homeadvisor.com, plumbers in the Atlanta area are paid between \$45-\$150 per hour. Energy auditors, with the same amount of experience, but also, who have studied energy in university programs (the majority of energy auditors possess at minimum an undergraduate degree, most frequently in engineering or architecture) and have learned a highly technical field should be charging more than your local plumber or electrician. You would be suspicious of a plumber who offers to perform free services for you, and the same rule of thumb should apply to energy auditors. Good auditors are expensive, but so are good plumbers, so are good electricians, and so on. Again, you get what you pay for.

Why Some Companies Offer Free or Nearly Free Audits

Some companies will offer energy audits for free, or nearly free. When this is done, usually the company offering the audit is either trying to sell an "energy saving" device or wants to do the installation on the energy efficient measures once they are found. The first type of vendor will often miss real energy savings opportunities, as they're focused primarily on energy conservation measures that require the use of their product. The second type of vendor is generally better, and their audits may be of good quality. However, with the free-audit-in-exchange-for-implementation model, you potentially incentivize measures that may not achieve the identified energy (and cost) savings.

Finally, some utilities are now performing energy audits for free. In some cases, this can be a tremendous opportunity. The audit is free to the customer, because the utility has already collected the fee from charges on customers' utility bills that are used by the utility to fund energy efficiency programs and incentives for their customers. Customers can get good audits from their utility provider. On the other hand, some utilities will use their own staff to perform the audits, and sometimes their auditing staff doesn't have the experience to perform an energy audit of comparable rigor to that of a private energy services professional. Moreover, a natural gas company may identify measures geared toward switching fuel sources away from electricity, and vice versa.

Experience Really Counts with Energy Audits

Energy auditing is not just finding inefficient lighting fixtures and suggesting they be replaced with more efficient fixtures. This is, indeed part of the job, but this is the easy part. To achieve more meaningful energy savings, performing an audit requires a thorough understanding of mechanical systems, building envelopes, plumbing systems, electrical systems, and so on.

You see, energy audits of commercial buildings are not something you can learn in a week. It takes years of learning, making mistakes, and watching others make mistakes before you can become adept at

energy auditing. There is an infinite number of HVAC configurations possible. Experienced auditors uncover these new situations every year. The problem with inexperienced auditors is that they are more likely to miss energy conservation opportunities, or they may make suggestions that just don't work, or some that may result in damage to your equipment.

The Bottom Line: How to Select a Good Energy Auditor

When you are evaluating energy auditors, perform the same level of diligence you would when evaluating any other professional service:

1. Talk to 2 or 3 companies and select the best one.
2. Ask for resumes of whom will be onsite. Ensure that the lead auditor has a documented track record of experience and look for evidence of an effective governance structure. Will a junior auditor collect field data? If so, how does the senior engineer get involved?
3. When hiring an energy auditor to perform an audit that is required by your local government (policies of this kind exist in Atlanta, New York City, and San Francisco, among others), make sure that the energy auditors possess the required professional qualifications identified in those local laws and are performing the required level of audit.
4. Ask for sample energy audits from each prospective company. Even if you don't read them cover to cover, thumb through them. Since all of your potential vendors are going to be producing audits of differing quality, you can now judge and rank the companies on the deliverable.
5. Ask for references of some jobs they have done recently... and then call those references. Make sure the references include similar projects. If you operate a 100,000 ft² hotel, a reference for an audit at a 20,000 ft² strip mall isn't much good to you.
6. Use a decision tool. Don't recreate the wheel here. How are projects typically evaluated in or organization? Follow the same strategy.

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