BY NATE ADAMS

More Than 'Tips' Needed to Improve Energy Efficiency

Last month's article, "Why Energy-Saving Tips Suck," explained how most common energy-efficiency tips equate to superstition, not wisdom. Now let's discuss how to ***really*** improve a home's energy performance.

The homeowners think their house is fat. You need to determine how fat and how much weight they want it to lose. You can put the house on a scale and establish a starting point: Monthly utility bills annualized, square footage, occupancy, and ZIP code are the key pieces of information needed to get a rough idea of what weight class a building is in. A list of problems, concerns, and appliances that are older than 10 years also help to determine opportunity.

I start by offering a low-cost visit. (I charge for this time, not to make money but to prove commitment. Typically I charge less than $100, and it takes about three hours, including travel.) I interview the building occupants and use trigger questions to create a list of problems.

Things like odors, mold, and allergies don't sound like energy problems, but indirectly they are. People use energy very wastefully in an attempt to eliminate these problems. Solve for comfort, and the energy savings will follow. If one or more comfort problems exist, there's opportunity for energy savings. Once homeowners are convinced of that, you can move them to the next step: the energy audit. Compared with the initial visit, which is like a scale or a thermometer that indicates something is amiss, the audit is like a complete physical with an MRI.

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By "energy audit" I don't mean a 20-minute clipboard walkthrough. I mean a comprehensive analysis that asks the occupants detailed questions, runs diagnostic tests—including combustion safety—and results in an energy model and recommended improvement packages.

My audits take three to five hours in the home and another three to five hours building the model, building and pricing my recommendations, and tailoring the package to best meet needs and budget. The end result, the energy model, is like an advanced spreadsheet that defines how much energy the building is using and how much it could be using. I typically charge $750 for this service.

One note: Energy models tend to overestimate initial use, and hence savings—often by 30% to 50% in both cases. Be sure to true the model to actual energy bills and to ask homeowners about behaviors and living patterns—such as hosting a lot of guests—that might throw off the model. In time (after you acquire energy use data, ask for utility log-ins), you'll build confidence in your savings projections, which is a nice competitive advantage.

THE FULL PACKAGE

A house is a system of systems, and a home-performance package requires that all systems work in balance. Homeowners make the mistake of looking at home-performance improvements like an a la carte menu. But just because one upgrade doesn't make sense to a homeowner, it can't be omitted. You can't skip air sealing the attic, regardless of how it models. If the house is tight, you can't skimp on ventilation.

Stick to your guns on packages for your clients' benefit. My top package itemizes every option, including those that clients may have trouble biting on. If something doesn't work perfectly later, I can point back to those options and ask if they would like to do them now. Otherwise, you may be on the hook.

A final process note: Be sure to price in enough margin to watch the subcontractors. Don't let them miss important but invisible details. Using this process, more than 50% of my clients make substantial upgrades in the $10,000 to $60,000 range, with no incentives or financing and with low housing values. If I can do it here in Ohio, anyone can.

Unlike common "energy saving tips," a step-by-step home-performance process can lead to real savings, usually between 30% and 70%, depending on the initial opportunity. The results will be tangible: fewer drafts, no ice dams, fresher indoor air. If you're a remodeler working with home-performance contractors, you'll also get to know your clients better in the process, and that can lead to better communication and more referrals.

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