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HOME

Your Energy Crisis Solved

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Soaring utility bills mean it's time to do triage on the biggest losers.

Feeling pinched by utility bills? It's no wonder: Since 2001 home-energy costs have more than tripled, rising from an average of \$600 annually to \$1,900. There are plenty of ways to trim costs, starting with Jimmy Carter's advice from the energy-scarce 1970s: Turn down the thermostat and wear a sweater. That alone could save you \$100 over the heating season. A lot of other fixes, from adding weather stripping and insulation to getting rid of an old refrigerator in the basement, will cut your energy costs, too. The savings will be especially dramatic if your home shows symptoms of energy illness: draftiness, a room that's always too hot or too cold, ice dams on the roof, foggy windows or a musty smell.

Give your home a physical

Start with a free and easy self-assessment: Compare your utility bills with those of a neighbor whose home is about the same size as yours. If your bills are notably higher, you have a problem. Next, survey your energy use with an online tool such as the [Home Energy Saver](#), designed by the Lawrence Berkeley Laboratory. On its Web site, as well as those of the federal [Energy Star program](#) and your local utilities, you'll find tons of energy-saving advice.

But for a comprehensive diagnosis and significant payback, you'll need an energy audit. For a cost of up to about \$400, an auditor will spend as long as six hours evaluating your home from top to bottom, including the exterior (how airtight is it?), ductwork (is cooled or heated air going where it should?), heating and cooling systems (are they efficient?), and appliances and lighting (do you need energy-efficient upgrades?). Two vital tools in the auditor's black bag are the blower-door test and infrared scanning, or thermography, which will detect thermal defects such as missing or inadequate insulation and air leaks. The auditor will also check carbon-monoxide levels. You'll receive a summary report with recommendations, including estimated costs, savings and length of payback.

Energy Star says homeowners can cut their energy use 25% to 50%, depending on the condition of the house and how many recommendations homeowners implement. Plus, local utilities and state energy offices often offer incentives and rebates to homeowners for making energy improvements. You may also qualify for up to \$500 in federal income-tax credits that you can claim on your 2006 or 2007 return for insulation and energy-efficient windows and doors, roofs, and heating and cooling equipment (the deadline for installation is December 31, 2007). A bonus: Your home's energy efficiency will be a future selling point.

Find an auditor

Some utilities, such as CenterPoint Energy, in Minnesota, have begun to offer professional audits and may subsidize the cost. Or get a referral from your state or local energy office (for a list, visit

www.naseo.org). You may also find auditors in the building trades, such as insulation or heating and air conditioning, or check the Yellow Pages under "Energy."

Depending on where you live, you may be able to find a "board certified" specialist. These auditors have credentials from either the Home Performance With Energy Star program, now operating in 12 states, or the [Building Performance Institute](#), operating mostly in the Northeast but expanding. They can also do the recommended work, which will be verified by an independent third party.

PAYOFF: What a Typical Household Could Save

These estimates, ranked by payback period, are for a 2,000-square-foot home. The numbers are national averages; savings will vary by region.

ENERGY SAVER	EXTRA COST#	ANNUAL SAVINGS#	PAYBACK PERIOD
Programmable thermostat	\$40	\$100	5 months
Compact fluorescent bulbs	30	50	7 months
Furnace	500	400	1 year, 4 months
Clothes washer	300	50	6 years
Windows	600	90	6 years, 6 months
Central air conditioner*	400	35	11 years, 5 months

*In southern U.S.

#Additional cost and savings beyond that of standard replacement equipment.

SOURCE: Energy Star

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