



House warming

Fuel prices are on the rise. Keep costs in check with our Home Heating Guide, including answers to your most burning questions—plus the best space heaters, thermostats, windows, and more.



What's the cheapest type of heating fuel?

Prices are in constant flux, and they vary by region. Natural gas, the most common fuel type, cost the average U.S. household about \$660 last winter. Based on current energy prices, heating with oil would cost \$1,590; propane would cost \$1,750, and electricity, \$2,135.

If your system is over 15 years old, it's worth upgrading to more efficient equipment and perhaps a different fuel source. Switching to natural gas costs about \$10,000, but you could recoup that in seven years if you include your water heater. Geothermal heat pumps, which use the Earth's constant temperature to heat and cool, are another option. Average installation is \$17,000, but a federal tax credit covers 30 percent, lowering the payback period to between 5 and 10 years.

ILLUSTRATIONS: JASON LEE

Do I need to get my ductwork cleaned?

Unless dust, mold, or signs of vermin are visible, cleaning your ducts is unlikely to improve your home's efficiency—or air quality. That's despite aggressive sales tactics that can cross the line into false advertising, according to the Better Business Bureau.

But duct sealing is a great way to improve efficiency, because 25 to 40 percent of conditioned air is lost through ducts that leak. You'll need to hire a pro, but sealing can save hundreds of dollars per year. Traditional methods treat leaks from the outside with tapes and mastics. A newer technology, called aereosealing, was developed by the Lawrence Berkeley National Laboratory. Microscopic particles of sealant are blown into ductwork, where they form airtight bonds over leaks, according to Aereoseal, which owns the patent. The average cost is \$1,500 to \$2,500, with promised annual savings of \$250 to \$850, the company says. Learn more at aereoseal.com.

How often should I have my heating system serviced?

We recommend once per year, ideally before it's taxed by cold weather. Make sure the contractor has proper certification; North American Technician Excellence, or NATE, is one. The Air Conditioning Contractors of America has a national directory, at acca.org. Consider entering into a service contract, which might cost \$100 to \$400, so that you don't have to remember to schedule a call. If you have a forced-air system, help it run efficiently by changing the filters several times throughout the winter. Also make sure the registers aren't blocked by furniture.

What's the best way to deal with drafts?

A professional energy auditor will run a blower door test to find leaks. The service costs \$250 to \$800, though rebates apply; check the Database of State Incentives for Renewables & Efficiency, at dsireusa.org.

You can also do a low-tech draft test using an incense stick. Turn on all of your home's exhaust fans and hold the stick near windows, doors, and electrical outlets. If the smoke blows sideways, you've got a leak that should be plugged with weather stripping, caulk, or expandable foam. Go to energy.gov for more information.

How can I tell if I have enough insulation?

Climb up into the attic with a ruler. There should be at least 11 inches of fiberglass or rock wool insulation, or 8 inches of cellulose insulation. That goes for the attic hatch as well as the floor.

Before laying insulation, it's important to seal any openings in the floor, including those around plumbing vents and electrical boxes. That will prevent the so-called stack effect, in which heated air escapes through the attic and is replaced with cool air from lower levels, leading to drafty rooms and elevated heating bills.

Read on for more heating-related Q&As.