

# Cutting Carbon From Your Fireplace | Earth 911

*Gemma Alexander*



Once the main form of home heating in America, today fireplaces are more commonly ornamental. Most of us rely on other systems for heating, only using the fireplace to create a cozy or romantic atmosphere. Yet the extra time we're spending at home this year is giving fireplaces a lot of extra use. Whether you burn a fire all winter long or only on special occasions, that atmospheric heat source comes at an environmental price. Fireplaces are incredibly inefficient heaters, and that [wood smoke](#) that smells so nice contains toxic pollutants, including carbon monoxide. But there are a lot of things you can do to make your fireplace more sustainable.

## Fireplaces as a Heat Source

According to the most recent [Residential Energy Consumption Survey](#) by the U.S. Energy Information Administration, fewer than 10% of U.S. homes burn wood as a primary heat source. In homes with a secondary heat source, 14% have a fireplace.

Open fireplaces are not the [best home heating system](#). They can rarely heat a whole house, especially fireplaces built on an exterior wall or in large homes. An open fireplace with a mantle is essentially an indoor campfire with no control over combustion or burn rate. Most of the heat escapes outside through the chimney. In fact, in a well-insulated house, conventional open fireplaces can operate at [negative](#)

[efficiency](#), meaning they draw more heat out of the house than they create.

If you love the look of a fire but want a more efficient heat source, consider a [gas-burning fireplace](#) — 70% of the heat they generate remains in the house.

## Better Wood Heating

[Pellet stoves](#), which burn pellets of compressed sawdust, are the cleanest burning solid-fuel stove, with EPA certified models reaching efficiency in the range of 70% to 83% — comparable to a gas fireplace.

If you must burn wood logs for heat, installing a fully enclosed, [EPA certified wood stove](#) or an EPA certified [fireplace insert](#) is your best option. These stoves burn a third as much wood as older models. The next-best option is a [fireplace retrofit](#). These are only EPA qualified, rather than certified, which means they meet [voluntary EPA emission standards](#) but are not verified by EPA. But they can still reduce fireplace pollution by approximately 70%. You can find many attractively designed and glass-fronted models that still provide a cozy aesthetic.

## Cleaner Atmosphere

It is far more common for homeowners to use their fireplace for ambiance than as a primary or even secondary heat source. If you only use your open fireplace occasionally, the cost of an enclosed insert may not be justified. But you can reduce the negative impact of your aesthetic fires.

Get [the most from your fireplace](#) with good maintenance and fire-building technique. Prepare and store your wood properly — or bypass wood entirely for cleaner-burning [manufactured logs](#) made from 100% compressed sawdust. Although tossing wastepaper or waste wood into the fireplace or disposing of your Christmas tree by burning it may seem like an efficiency, it is a very [bad idea](#). Inks used on paper or cardboard and paints or finishes on wood release toxic fumes into the house. These materials and the resins in evergreen trees also increase the risk of chimney fires.

## (Semi) Permanent Solution

Unfortunately, an unused fireplace still hurts your home's efficiency. Even newer cast-iron dampers allow warm air to escape the home through the chimney.

Rather than losing heat all winter to enable burning the occasional fire, you might choose to seal your primarily decorative fireplace. There are a lot of simple and easy ways to block the chimney from below. These methods are usually easily reversible (a plus if you plan to sell the house). But they can allow water to build up at the blockage. Animals may also nest at the top of an unused chimney.

Sealing the chimney [at the top](#) is a better choice. Installing a piece of thin stone or metal on top of the unused flue with masonry caulk is a bit more challenging than working from below, but it is still reversible.

## Fireplace Style

Even an empty fireplace is an attractive design element in your home. But if you've sealed up your chimney, you can do more than just hang a picture above the mantel to create a focal point for the room. The options for [styling a nonworking fireplace](#) — from flower arrangements to a miniature art gallery to string lights or even storage — are limited only by your own imagination. And if you find yourself missing the hypnotizing flicker of flames, you can always put a TV in the fireplace and watch one of the many crackling fire videos on YouTube.

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