



## ENERGY EFFICIENCY

# LOSING MONEY AT THE SEAMS

One of the most prevalent causes of energy loss is duct leakage. Between 20 and 30% of the air moving through your home's system is lost due to leaks, holes, and poor connections in the ductwork. While the problem affects all types of homes, the most common offenders are found in mobile homes, homes on crawl spaces, and houses with ductwork in the attic or garage. The result — decreased comfort and higher energy bills.

Losing even a small amount of the air that you pay to heat or cool can add up. And if the air loss is significant enough, it can result in big bucks. The U.S. Department of Energy estimates that most homes could save around 15% on their heating and cooling costs by reducing ductwork leaks. For a home that spends \$2,000 a year, that's a savings of \$300!

Besides saving money, there are several other benefits to properly sealing your duct system. The most important is comfort. Sealing leaky ducts can help with common problems such as rooms that are too cold in the winter or too hot in the summer. Improved air quality is another advantage. Sealing ducts can reduce the risks of pollutants entering the home from dusty attics or musty crawl spaces. Dust, insulation particles, or mold spores from damp spaces can aggravate asthma and allergies. There is also the additional benefit of safety, as properly sealed return ducts will not pull gasoline and exhaust fumes from the garage or mold and radon gas from a crawl space or cellar into the HVAC system.

Fortunately, sealing minor ductwork leaks is relatively simple and inexpensive. Start with an inspection of your ductwork and vents. Take off the grills and look for possible air leaks in both delivery and return vents. Pay extra attention to this area on mobile and manufactured homes, since they are moved after construction. Inspect all ducts that you can reach in your cellar, basement, attic, crawlspace, and/or under skirting.

Where ducts are accessible, seal leaks, holes, seams, and connections with duct sealant (mastic) or metal-backed (foil) tape. Never use duct tape, as it won't stand up to the extreme temperature changes of your HVAC system. Make sure the surface is clean before applying sealing materials so that it stays in place.



Never use duct tape to seal air leaks. It isn't made to stand up to the extreme temperature changes of an HVAC system and won't last. Always use mastic, foil tape, or other products specifically made for ductwork.

It's also a good idea to look behind or under your register grills. Seal what can be reached with caulk, duct mastic, or a product like Aeroseal. You can also check out this video to see how to properly seal this area: [www.youtube.com/watch?v=4UhrNSBuE8](https://www.youtube.com/watch?v=4UhrNSBuE8). For more severe or inaccessible ductwork problems, you may want to contact a professional that offers duct testing and sealing. The money you save on your heating and cooling bills could be worth it.

If your home tends to have higher winter bills or you struggle to keep certain rooms comfortable, now's the time to consider checking your ductwork for leaks — before the colder weather arrives. If you have questions regarding ductwork sealing, contact Firelands Electric Cooperative's energy advisors at 1-800-533-8658 or visit [www.energy.gov/energysaver/minimizing-energy-losses-ducts](http://www.energy.gov/energysaver/minimizing-energy-losses-ducts).

### FIVE SIGNS THAT YOU COULD HAVE PROBLEMS WITH YOUR DUCTWORK

- You have high heating and cooling bills.
- You have rooms that are difficult to heat and cool.
- You have stuffy rooms that never feel comfortable.
- You find tangled or kinked flexible ducts in or under your home.
- You have ducts located in the crawl space, attic, garage, or unconditioned cellar.