

Get a Handle on Winter Energy Bills

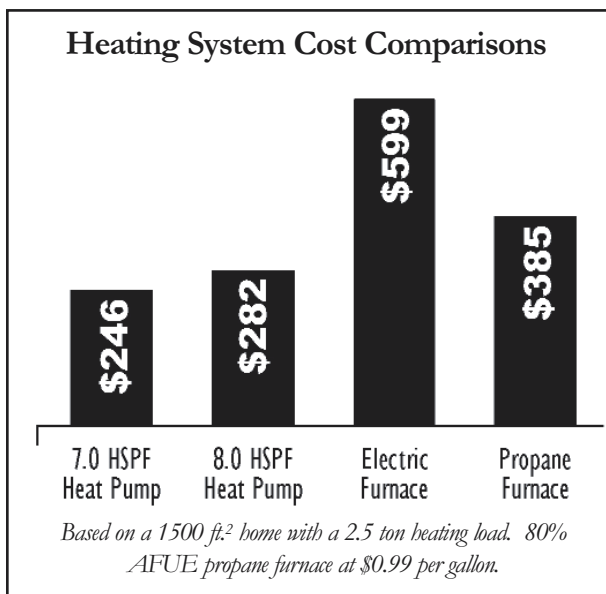


For many homes, winter energy bills rival or even surpass those from the summer. Heating and water heating typically make the largest impact on winter bills, so finding ways to reduce usage for these areas will produce the greatest savings. This guide contains some practical tips for reducing your winter electric bills while making your home more comfortable.

Heating System Efficiency

In middle Georgia, heating loads are actually higher than cooling loads for many homes. While electric rates are lower in the winter, overall kilowatt-hour consumption can be higher. Therefore, it's easy to understand why your home's heating system plays a major impact on your winter energy bills.

For most homes, an electric heat pump is the most efficient option for heating. Electric furnaces are very common, especially in manufactured home, but are actually the most costly system to operate. In fact, an electric furnace will use two to three times as much electricity as a medium efficiency heat pump to create the same amount of heat. Even gas furnaces, which use gas combustion to create heat, impact the winter electric bill because of blower motors and other electrical components.



Energy Saving Tips for Heating

- **Set your thermostat at 70° or lower.**
For every degree you raise the thermostat setting during the winter, you raise your heating bill by an average of 3%. Manually adjusting a heat pump thermostat will result in more auxiliary strip heater operation and higher bills. If you want to set back your thermostat during the night or when no one is at home, have a programmable setback thermostat installed. Programmable thermostats could cost as much as \$150 to have installed, but should save about twelve to fifteen percent per year in heating and cooling costs.
- **Seal and insulated ducts.**
Duct leakage can lower the efficiency of your heating system by up to 25%. The only proven method of sealing duct leakage is with a product called mastic. In Georgia, all ductwork must be insulated to at least R-4. Insulate all new ductwork to R-6.
- **Use efficient lighting.**
Because winter nights are longer and people tend to spend more time inside, electric usage for lighting goes up during the winter. Consider using task lighting such as lamps rather than lighting an entire room. Compact fluorescent lamps (CFLs) use about 75% less energy than incandescent lamps and last ten to thirteen times longer, making them great investments.
- **Change return filters regularly.**
Return air filters should be changed every month or so to help your heating system's heat exchange and indoor air quality. Dirty filters can increase your system's operating costs, damage equipment and reduce efficiency.
- **Stop air leakage.**
Air leakage, called infiltration, is the largest heating load on the typical home. Seal plumbing and electrical penetrations with expandable foam

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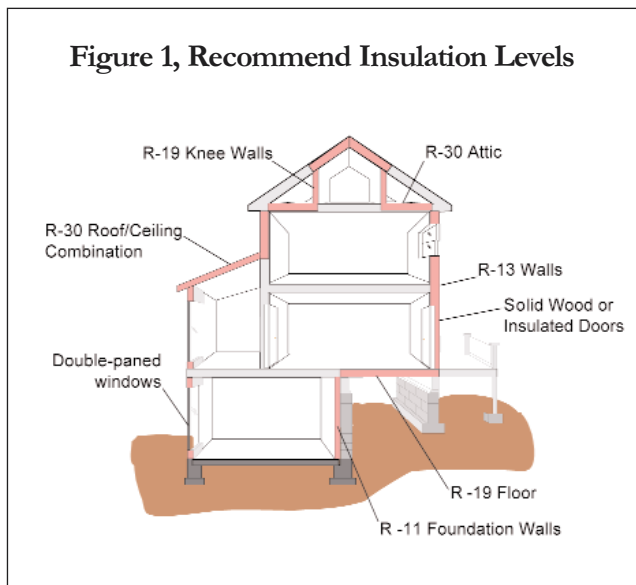
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sealant, replace worn weather-stripping, and caulk around doors and windows to keep the cold air out. Attic access doors should be insulated and weatherstripped. Whole house attic fans are also a major source of leakage if not sealed and insulated. Ready-made, insulated covers are available commercially or plans for building your own can be downloaded from the U.S. Department of Energy's energy efficiency website at http://www.eren.doe.gov/buildings/home_fan.html#building.

■ **Check your home's insulation.**

Maintaining the recommended insulation levels in your home will lower heating loads and save money. One of the most commonly overlooked areas for insulation are floors. While floor insulation has no impact on cooling loads, adding R-19 to uninsulated floors can make an appreciable difference, especially for hardwood floors.



For new homes, minimum levels of insulation are required to comply with the state's energy code. Even in existing homes, maintaining the insulation levels shown in Figure 2 will help lower winter bills and raise the comfort level of your home.

■ **Fireplaces may not save energy.**

If you use a wood-burning fireplace to augment electric heating, you may not be saving money. Unless you are using a fireplace with its own external source of combustion air, using a wood fireplace draws a large volume of air up the chimney,

dramatically increasing infiltration. Even when you are not using the fireplace, unless you close the flue damper, the stack effect of the chimney draws conditioned air out of the home, increasing your heating costs around the clock.

■ **Water heating savings.**

Set your water heater to 120°F. Higher settings waste energy and could lead to serious injury from scalding. Wrap your water heater with an insulating jacket, especially if it is located in a crawl space, basement, or elsewhere outside of the conditioned part of the home. First check the manufacturer's literature for your water heater to make certain the use of an insulation blanket does not void the warranty. You can buy a jacket from a local hardware or building supply store for less than \$20. It will save you many times its cost in energy savings.

■ **Avoid space heaters.**

Although it is often tempting to use space heaters as supplemental heat, they can be expensive to operate and potential safety hazards. If you do use space heaters to augment you home's heat, make certain to provide minimum clearance from drapes, bedding, or other combustible and never plug a space heater into an extension cord. Unvented gas or kerosene heaters have the potential to emit deadly carbon monoxide. With these and any indoor combustion products, maintain necessary fresh air and always use a carbon monoxide detector.

■ **Operate blinds or drapes for savings.**

Although many winter days are overcast, on sunny days, be sure to open blinds or drapes facing the sun to allow sunlight to heat the home. During the night, drapes or curtains should be closed to provide additional insulation for windows.

More Efficiency Information

Need more information about energy efficiency or our climate? Tri-County EMC recommends the following web-sites:

- www.tri-countyemc.com
- www.southface.org
- www.noaa.org
- www.energy.gov
- www.homeenergy.org