



Energy Management for Home

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Top Ten Tips

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For more energy information, go to <http://energy.tennessee.edu>.

Mobile Homes

According to the U.S. Census Bureau, there are over 250,000 mobile homes in Tennessee, which is better than 10% of all housing. Their low cost (compared to site-built houses) enables more people to own homes. Unfortunately, however, about half of existing mobile homes were built with little or no insulation or other energy efficiency features. Many were manufactured before 1976, the year in which a federal housing code was passed requiring the homes to be built more efficiently. The good news is that there are many ways to increase the energy efficiency of your mobile home, which will in turn lower your utility bills and make your home more comfortable. Some steps you can do yourself, and others require the skills of trained weatherization professionals.

Mobile Home Construction

The construction process for mobile homes is radically different from that of site-built homes. The floors, walls, and roof are built in assembly line fashion to form the home. Portability is achieved by mounting the home on a steel frame with wheels and using strong but lightweight materials for framing.

First the floor, complete with water lines, waste lines, ductwork and insulation, is fastened to the steel frame foundation. The floor is protected by a rodent barrier, a sheet of heavy cloth or paper that also keeps animals out. Next, the furnace (typically a sealed combustion type) and plumbing fixtures are added and then, the interior walls. The homes are assembled from the inside out, with the ceiling/roof portion being the last major component installed.

Once the home arrives at its destination, it must be secured on a level foundation on dry ground with proper drainage. If the home is not level or the ground below too moist, weatherization and repair steps will not be effective. Enlist the help of a qualified professional for these siting tasks.

Most effective conservation measures

Studies conducted by the U.S. Department of Energy determined the most cost-effective energy conservation measures for mobile homes were:

1. Sealing air leaks and furnace ducts;
2. Furnace tune-up;
3. Blowing insulation into the home's underside (called the belly);
4. Installing interior storm windows; and
5. Blowing insulation into the roof.

Because of the wide construction variations of mobile homes, with the exception of installing plastic storm window kits that you can purchase at a hardware store, these measures will likely require the skills of trained professionals. Though you can also easily seal noticeable leaks around your home's windows and doors, these efforts will have little effect on your energy consumption if the big hidden leaks go untouched – leaks which are most easily found using a blower door, equipment commonly used by professional weatherization crews.

If you are on a limited income, you may qualify for free weatherization assistance. Contact your local utility, Community or Economic Development Councils of Tennessee's Weatherization Program for details.

