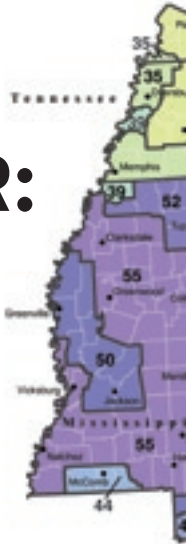


CHOOSING AN AIR CONDITIONER: Right Sizing Saves Money, Prevents Problems



Contrary to popular belief, bigger isn't always better.

Oversized HVAC equipment is recognized as a common industry problem that erodes energy efficiency and lowers customer satisfaction. Consumers can overpay in two ways by installing equipment that has more cooling capacity than they need. First, equipment with greater capacity is more expensive to purchase. Second, oversized equipment tends to cycle on and off frequently, shortening equipment life, lowering efficiency and increasing power bills. A third problem with oversized equipment is that it can lead to moisture problems.

The Manufactured Housing Research Alliance developed a set of *Cooling Equipment Sizing Guidelines* that are based on typical home configurations and assumed design conditions. The guidelines were developed with financial support from the U.S. Environmental Protection Agency, the Tennessee Valley Authority and the National Rural Electric Cooperative Association.

Why Size Matters

When an air conditioning unit is oversized, it doesn't operate as long as it needs in order to squeeze moisture out of the air.

"You get what we call the 'cave effect.' It is cool inside, but it is also

damp, which can cause mold and mildew to form in the house," explains Terry McIntosh, product manager for the Tennessee Valley Authority, a public power company.

Because of this, the Tennessee Valley Authority started a program to encourage the use of correctly sized heat pumps in manufactured homes. Since the Tennessee Valley has a moderate climate during the winter, the program gives a \$300 buy-down for heat pump units. Additionally, they require that the equipment be sized according to MHRA guidelines.

"Since we started the program in 1996, we are approaching 35,000 manufactured homes that now have

The Manufactured Housing Research Alliance (MHRA), the research arm of the manufactured housing industry, provides content for *Technologies*.

■ *Technologies* highlights the research of MHRA and examines other research and development activities throughout the industry.

■ For more in-depth information about research in the factory-built housing industry, or to find resources mentioned in *Technologies*, visit the MHRA Web site.



2109 Broadway, Suite 200
New York, NY 10023
(212) 496-0900
www.mhrahome.org

