

## **Recognition of Radiant Floor Heating A Cost Effective Energy-Efficient Heating Option**

Submitted by Janet Thome  
President, Tiny House Alliance USA

As the U.S. The Department of Energy evaluates alternative methods for improving building energy performance. I encourage greater recognition of radiant floor heating as an energy-efficient heating option, particularly for tiny houses, starter homes, and other smaller dwellings.

I have first hand experience with this type of heating.

I own a tiny house on wheels used as a rental **with a Warm Waves FAR infrared radiant floor heating**. Through my experience with this home, I have found the system to provide comfortable, consistent heat while maintaining very low energy bills. Because the radiant heating system is installed in the floor directly above the plumbing, it also contributes to helping prevent the pipes below from freezing during the winter.

This type of heating provides consistent comfort while eliminating the need for bulky furnaces, ductwork, and forced-air distribution systems that consume valuable space in smaller homes.

Warm Waves utilizes UL-certified FAR infrared radiant heating technology installed beneath the finished floor. Rather than heating the air alone, FAR infrared warms the floor and surrounding objects, creating even, consistent comfort throughout the living space. Because the system contains no moving parts or ductwork, installation is straightforward and ongoing maintenance requirements are minimal.

Radiant floor heating offers several advantages for tiny houses and other compact homes. It preserves valuable interior space, allows greater design flexibility, provides room-by-room zoning through standard line-voltage thermostats, and eliminates energy losses commonly associated with duct systems. These characteristics make radiant floor heating particularly well suited for smaller housing where every square foot matters.

Tiny houses on wheels represent one of the nation's most affordable housing options, yet innovative heating technologies designed specifically for smaller homes are rarely discussed during the development of building energy codes. As DOE considers alternative methods for improving building energy performance, radiant floor heating deserves greater recognition as a viable option that supports energy efficiency, affordability, innovation, and consumer choice.

I encourage DOE to consider radiant floor heating technologies, including FAR infrared systems, as part of its evaluation of alternative approaches to meeting future residential energy performance objectives, particularly for tiny houses and other smaller homes.