

DID YOU KNOW?

THERMAL STORAGE OFFERS A GREEN SOLUTION FOR COOLING

Thermal storage systems for air conditioning are like block ice storage huts of long ago. The efficiency and simplicity of the principal remains the same even with technological advances: store frozen masses for cooling use at a later time. Modern thermal storage systems consist of tanks that are filled with expandable plastic balls surrounded by a fluid capable of freezing these balls into a solid mass. The plastic balls are dimpled (much like a golf ball) to expand and contract without breaking. Fitted with one pipe in, tanks are supplied with cooling fluid to freeze the balls. Later, one pipe out transfers cold fluid for cooling when the balls begin to melt.



The freezing cycle takes place during low usage, off-hour (peak) energy demand and prices (usually at night) with the thawing cycle taking place during peak cooling demand (usually during the day). Energy used at peak hours often has additional demand charges and can account for a 50% increase in electric utility bills*. This method not only saves money, but in conserving energy during peak times (as much as 70%) helps to lower the carbon footprint of a home or business significantly while providing excellent air conditioning comfort.



A simple, green and creative energy solution, these systems provide quiet, clean cooling using a wide variety of hydronic cooling devices to deliver air conditioning to multiple zones and can be built in any size for use in new and retrofit applications in residential as well as commercial construction. As with all hydronic systems, these technologies are quiet, clean, comfortable and very energy efficient.

* Source: Army Corp of Engineers

Heating and Cooling with fluids is clean, saves energy, improves indoor air quality and health while reducing a homes' carbon footprint.