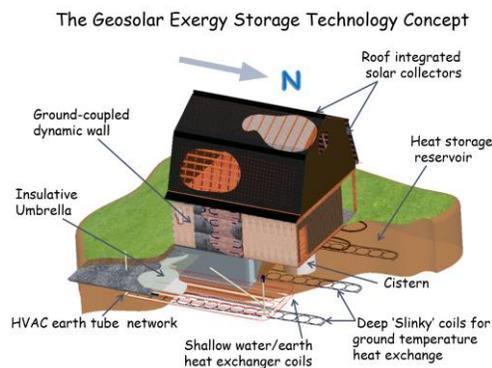


Geo-solar U.S.A. Technology

A Universal system for America

GEST is Moving South!

DFI Enterprises, Inc. Introduced Geosolar Exergy Storage Technology in 2008 as a means of attaining net zero energy in a cold climate, because that is where DFI is located. Some of the features of the technology have been designed, but others are universal. GEST is based on exergy management. As interest in the technology has grown we are now striving to obtain a universal design system for affordable retrofit, starting in Eastern Florida. A few of the commonalities and differences are highlighted here.



The name “Geosolar Storage” is important in New York, but not so much as when the ground temperature is room temperature. Ground coils might still be used for heat source or sink. Long term storage should not be needed, and short term storage will be in tanks (as is the cistern shown above).

The Roof Integrated Solar Collectors are probably the most universal item for Exergy management. They are extremely effective for removing heat from the roof, whether it be for some useful purpose to expel excess. They can act in reverse, at night to radiate heat from the building or in winter to melt snow. They are the first defense against the solar heat, and are generally not difficult to retrofit because of their accessibility.

The insulative umbrella will not be necessary in the southern region in general. A vertical modification might be useful around elevated mobile homes or similar structures if an attempt is being made to cool the space beneath.

Note that in the south, where we don't have a natural source below room temperature so, one or more heat-pumps will be required. Any of the ground loops that were installed will serve well for sourcing or sinking heat.

The Ground-Coupled Dynamic wall will be useful but will function differently because there is no long-term storage in the to recover and there are few basements.

A note on JEDI: Our initial project is to retrofit our Florida test house. We first planned to purchase a standard construction house, but when we counted the number of mobile and premanufactured homes that might be retrofit, we selected this one so we could design the first southern system for that market. For the Set Contest we plan to find interested builders or contractors to work with us as we retrofit one or more actual homes as test units. Within two years, we anticipate the underserved will benefit both by having cooler homes and by generating employment in retrofitting their neighborhoods.