terrafore

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FOR IMMEDIATE RELEASE

TERRAFORE, INC. TO DEVELOP BETTER THERMAL ENERGY STORAGE TO MAXIMIZE SOLAR POWER EFFICIENCY

Awarded $1.8 million grant from the Department of Energy

RIVERSIDE, CA – In Concentrating Solar Power (CSP) projects thermal energy storage is required for dispatchable solar power. This stored thermal energy is used to generate electricity as needed during off-peak solar collection times or cloudy days. In large CSP installations, storing some or all of the high temperature thermal energy collected is a significant determining factor for total plant cost and efficiency.

Riverside, CA based Terrafore, Inc. is pioneering new research to develop better Thermal Energy Storage (TES) using inorganic molten salt mixtures. The Department of Energy selected Terrafore to grant an award under the Thermal Storage Research and Development category for their *Advanced Heat Transfer Fluids and Novel Thermal Storage Concepts for Concentrating Solar Power Generation* initiative, which seeks to reduce the cost of energy delivered from CSP plants.

Terrafore, along with University of California at Riverside, Jet Propulsion Laboratory and Hamilton-Sunstrand/ Rocketdyne, will explore the use of innovative salt combinations and methods to store and transfer high temperature thermal energy.

Anoop Mathur, Chief Technology Officer for Terrafore, said " besides storing power efficiently for times of need, Terrafore's thermal energy storage will require less storage media than the conventional systems and also reduce the size of the container…."

"During peak hours of sunlight, large turbines are used to maximize the amount of energy converted into electricity," said Mathur. "With effective thermal storage, a smaller and more efficient turbine can be used to levelize the load over the period of time it is needed."

The Department of Energy sought proposals to jointly develop better thermal storage to reduce the cost of alternative energy sources. As per DoE, a key advantage of TES is the reduction in the cost of energy delivered from a Concentrating Solar Power plant. Low-cost TES systems result in a decreased levelized energy cost because the cost of TES is less expensive than incremental turbine costs.

Terrafore, Inc. was incorporated in 2007 with a focus on renewable energy and sustainable technologies. In addition to developing TES systems, the company is working on medium scale CSP systems and offers consulting services in renewable energy installations and technologies.