Stationary Concentrating Light Bulb CSP Module with Energy Storage

FENG SHI / SOLENSPHERE LLC

Project Summary

This project proposes to deploy SolenSphere LLC's (SolenSphere's) patented "Inflatable non-imaging Solar Concentrator" (US11365903 B2) and "Hybrid Plug-in Battery and Hydrogen Fuel Engine Vehicle with Swappable Hydrogen Tanks and Method for Modular Hydrogen Storage and Transportation and Distribution" (US 12005772 B2) to construct a CSP system to realize ultra-high efficiency, extremely low cost, and stabilized power generation for replenish energy through hydrogen tank swapping or battery module swapping for EVs. This project also proposes to deploy SolenSphere LLC's (SolenSphere's) patented "Divergent Fresnel Lens and Non-imaging Concentrator Based Non-tracking High Concentration Ratio Solar Concentrator" (US 11947095 B2) to construct stationary concentrating light bulb CSP module with energy storage to assemble solar tree for Agrivoltaic application.

Stationary Concentrating Light Bulb CSP Module with Energy Storage

Solar Tree

Agrivoltaic Application

Fig.9 The inflatable non-imaging solar concentrator without domed flexible divergent Fresnel lens cover CPVon a e-bike trailer

Fig.4 Prototype of the inflatable non-imaging non-tracking solar concentrator based CPV system on a e-bike trailer

Hydrogen tank swappable and battery module swappable hybrid hydrogen and batter electric vehicle

Project Impact

The success of the proposed project will effectively address the fundamental issues of solar energy industry and make it the main stream of power supply in the modern society. The proposed project will realize ultra-high conversion efficiency, extremely low cost, and super-light weight of solar system. The proposed project will realize large scale solar radiation condensation in extremely low cost and pave the road for completely replacing fossil fuel with renewable energy. The success of the proposed project will revolutionize today's energy industry and fundamentally change the landscape of today's transportation, power grid, and building energy consumption. The proposed project will dramatically change the landscape of today's agriculture.

Realize ultra-high efficiency extremely low cost and stabilized power generation