

Inflatable Non-imaging Solar Concentrator CSP

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Project Summary

This project proposes to employ SolenSphere LLC's (SolenSphere's) patented "Inflatable non-imaging Solar Concentrator" (US11365903) and "Inflatable Non-Imaging Solar Concentrator Based Concentrating Hybrid Solar Thermal and Photovoltaic System Powered Water Desalination System" (US 11014828 B2), in conjunction with SolenSphere's hybrid solar thermal and photovoltaic panel as receiver, cavitation steam generator, steam energy storage, and thermal engine power generation system, to construct a CSP system to realize ultra-high efficiency, extremely low cost, and stabilized power generation.



Hybrid solar thermal and photovoltaic panels



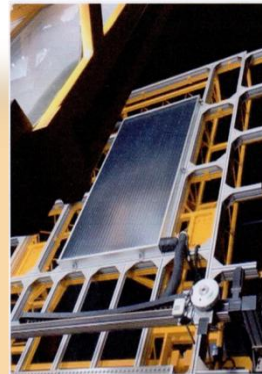
Cavitation steam generator



Steam storage tanks



Steam turbine generator



Project Impact

The success of the proposed project will effectively address the fundamental issues of the solar energy industry and make it the main stream of power supply in the modern society. As the rapid development of photovoltaic technology, the current photovoltaic industry is already able to generate power in a price comparable with that of electricity generated with fossil fuel. However, due to the intermittence, solar power is unable to independently support power grid. The proposed project synergistically integrate the ultra-high efficiency hybrid solar thermal and photovoltaic panel, heat pump, and the steam turbine thermal power generation system together to not only address the issues of low efficiency and high cost, but also effectively balance the intermittence. The success of the proposed project will significantly change the landscape of the power supply over the world.

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