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***Sustaining Solar Energy Renaissance***

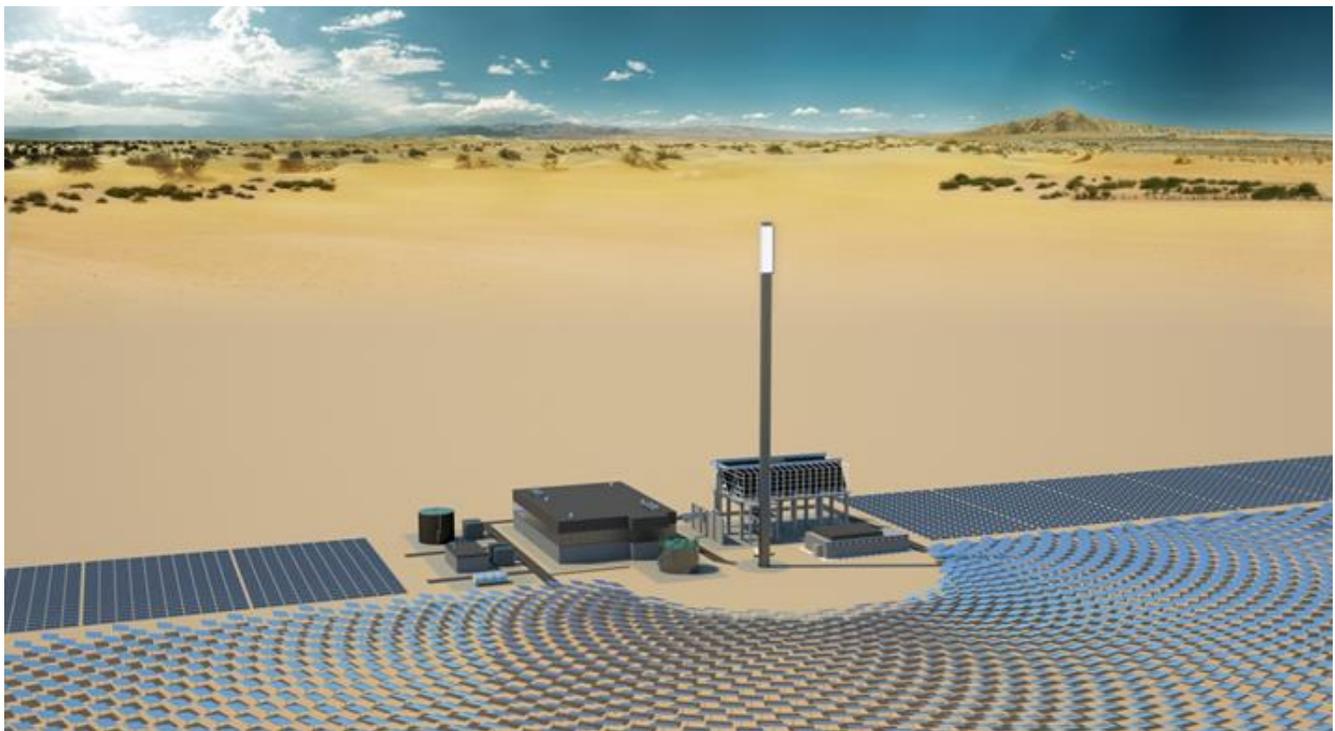
***The Mission:***

Holtec's HI-THERM HCSP has an exciting mission: ***Make Solar Supreme Again!***

To be the supremely desirable energy source, a solar generation plant must:

- (i) Be cost-competitive with fossil fuels
- (ii) Have long service life like nuclear plants, and
- (iii) Resist every threat like no other industrial plant

Inherently, a long-lived and terror resistant system, HI-THERM HCSP leverages Holtec's innovative design and construction concepts that are poised to make solar energy cost-competitive.



***A typical HI-THERM HCSP Installation with a single Power Tower shown***

***What is unique about HI-THERM HCSP?***

HI-THERM HCSP combines the classical concentrated Solar Power (CSP) system with Photovoltaic (PVP) energy capture (the mainstay of solar generation in the 2000s) in a judicious architectural layout. Including both CSP and PVP produces a much greater solar energy capture rate per acre of land than either the CSP or the PVP technology could deliver by itself.



## HI-THERM HCSP vs. World's Largest PV Project: A Direct Comparison

The table below shows a direct comparison of the world's largest PV installation (Edwards & Sanborn) in Kern County, CA, and the projected performance of HI-THERM HCSP if it were deployed on the same site:

	<b>HI-THERM HCSP</b>	<b>California PVP Site</b>
<b>Total Energy Captured, GWh/year</b>	5,000	1,725

Above Aerial view: Edwards and Sanborn Project in Kern County, California

Holtec's Hybrid solar plant (HI-THERM HCSP) beats the currently installed PVP installation by a factor of 2.9!

### Key Attributes of HI-THERM™: Modular, Maintainable and Terror-Resistant:

Major components that constitute the HI-THERM™ system are:

- (i) A **Power Tower** (up to 200 meters tall)
- (ii) Field of **heliostats** (mirrors with rotation-capable mounting),
- (iii) A **Solarex™** heat exchangers at the top of the tower that deliver the reflected solar heat from the heliostats to the circulating "molten solar salt"
- (iv) **PVPs** nestled amongst the heliostats. Other than the PVPs, every component of the HI-THERM™ system can last for many decades, if properly maintained, and every component is extremely resistant to the vagaries of nature or malevolence of terrorists.
- (v) The **Holtec Green Boiler (HGB)** (Please see *Quick Facts #21*) provides round-the-clock energy
- (vi) A **steam turbine** power block selected for the dynamic grid demand.

### Removing the Greatest Weakness of Solar Power:

HI-THERM eliminates the main weakness of solar power, which is its intermittency. It does so by not using batteries, which have a short service life and are prone to fire. Instead, it uses the *HGB*, which can store vast quantities of solar energy at a very high temperature (700 Deg C). The HGB can hold its stored heat for weeks with minor loss to the environment and can provide high enthalpy steam on-demand to produce electricity. In other words, at the HI-THERM HCSP site, cloudy or rainy days would not matter, and power supply would be uninterrupted if equipped with a large enough HGB. **Call it Solar Nirvana!**

### More detailed reading is available on our website:

- i. HTB-81 -- [Holtec's Green Boiler: An Omni-Purpose Thermal Storage and Energy Delivery System](#)
- ii. HTB-86 -- [HI-THERM: An Innovative Concentrated Solar Power Technology to Generate Base Load or On-Demand Clean Energy](#)
- iii. In a Nutshell: The Holtec Green Boiler Quick Facts #21
- iv. Patent Pending US and World Patent Application Nos; PCT/US2024/032921, PCT/US2024/054850, 18451235, 63619047, 63668364, 63671336, 18939701, 63675394, PCT/US2025/36839, 63670371, 63671445, 19262978, 63697991, PCT/US2025/036060, 19257123, 63713314, 63761428



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