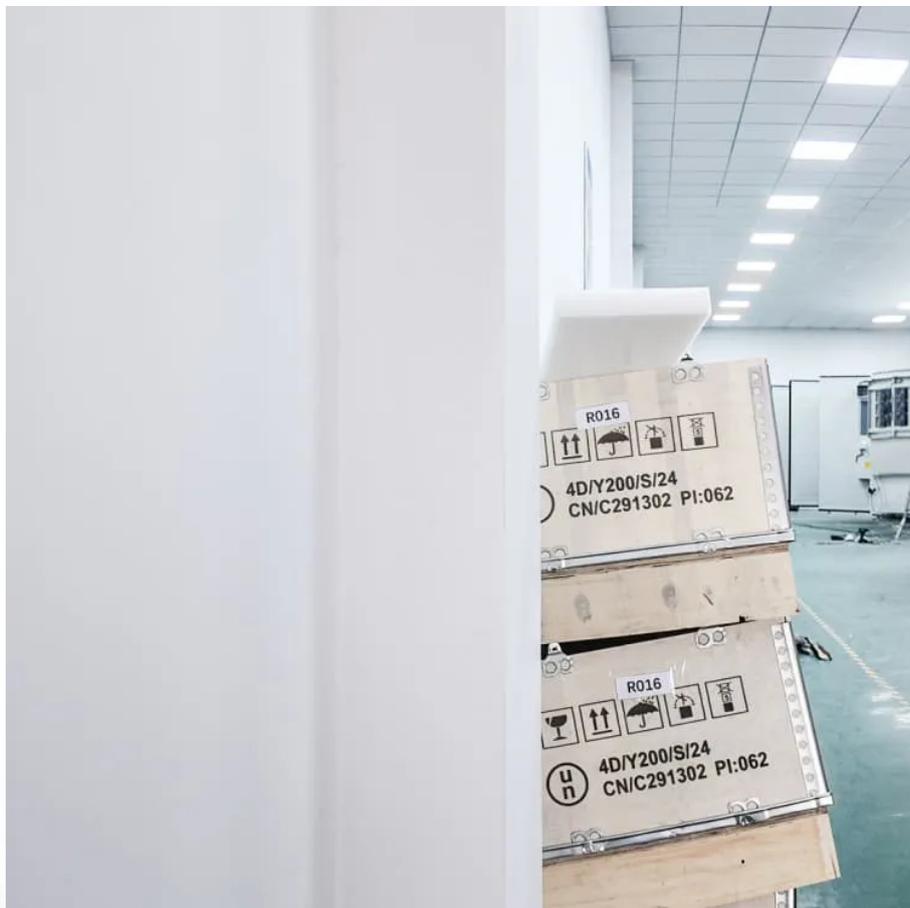


Centralized solar thermal solar hybrid power station





Overview

What is a concentrated thermal power (CSP) plant with integrated thermal energy storage?

System Description The proposed Concentrated Thermal Power (CSP) Plant with Integrated Thermal Energy Storage (TES) consists of three subsystems: the solar field, TES system, and power block. The solar field is a heliostat (a sun-tracking mirror) array that collects sunshine and concentrates it on a central receiver tower.

How can a solar thermal power plant generate low-cost electricity?

By combining a photovoltaic system with a solar thermal power plant, these plants can generate low-cost electricity. The hybrid CSP-PV power plants produce renewable electrical energy both during the day and at night. Thermal storage tanks are essential, as they first provide intermediate storage for the excess heat produced during the day.

What is a hybrid CSP-PV power plant?

Hybrid CSP-PV power plants produce renewable electrical energy both during the day and at night. By combining a photovoltaic system with a solar thermal power plant, these plants can generate low-cost electricity. The hybrid CSP-PV power plants produce renewable electrical energy both during the day and at night.

What is hybridization with solar thermal?

Hybridization with photovoltaics Another common technology for hybridization with solar thermal is solar photovoltaic energy. Although both of these technologies use the same energy source (i.e., the sun), the combination of the two actually presents some fairly strong synergies.



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Microsoft Word

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