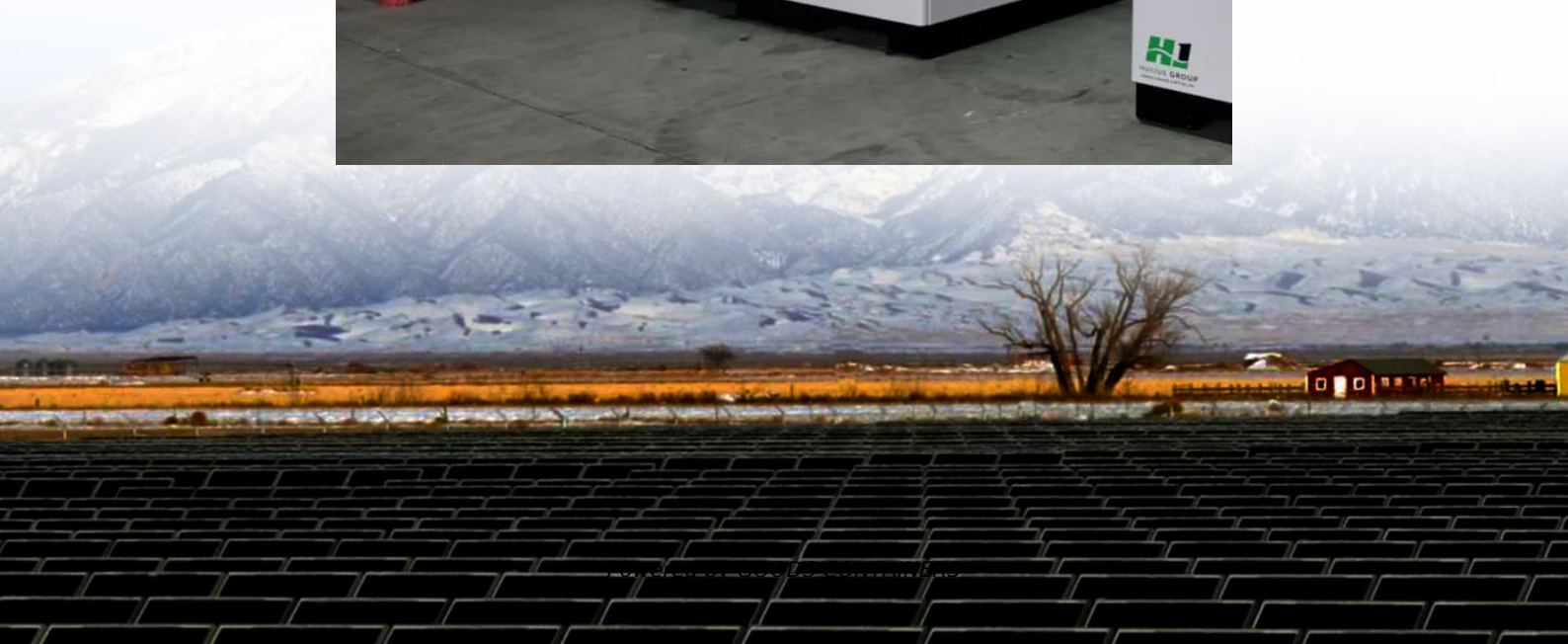


Data centers use Asian photovoltaic containers for fast charging





Overview

How can data centers improve energy use in China?

The plan also aimed to increase the utilization rate of renewable energy in data centers by 10 percent annually. As an important infrastructure for development of new quality productive forces, data centers are among the sectors where energy use grows rapidly in China.

Can a data center save energy?

With this microgrid, the data center can save 12 million kilowatt-hours of electricity per year, enough to power 6,000 households. We have successfully combined the eco merits of solar energy and running data centers, transforming them from simple power loads to controllable and adjustable power nodes.

How to develop a green data center driven by solar energy?

The system parameters are analyzed. In order to develop the green data center driven by solar energy, a solar photovoltaic (PV) system with the combination of compressed air energy storage (CAES) is proposed to provide electricity for the data center. During the day, the excess energy produced by PV is stored by CAES.

What is the PV power consumption of a data center?

During the period from 8:25 to 17:07, the PV power generation is higher than 17.5 MW. Therefore, during this time, the power consumption of the data center can be fully supplied by the PV system, and the excess PV power is used for the charging process of CAES system to compress the air and store the compressed energy.



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