

JinkoSolar to Supply 1.1MWh/500kW PV-plus-Energy Storage for Kenya Refugee Camp

JinkoSolar will supply a 1.1 MWh energy storage system (ESS) integrated with a 500kW PV project to a refugee camp in Kenya that will secure a more stable supply of power.

JinkoSolar's air cooling energy storage system is featured of 10% higher power density compared to its peers, a pre-assembled design, and an IP65 protection rating. The company also provides liquid cooling ESS called SunGiga with 20% higher power density compared to air cooling, 20% higher lifecycles (up to 15 years), 30% less power consumption, and high-efficiency thermal management. SunGiga is a brand-new solution for applications spanning generation, grid ancillary services, regulation, and peak shaving. The device comes in a 250kWh to 2.5 MWh capacity and supports voltages ranging from 1,000 V to 1,500 V. The company's patented thermal solution can run at high

power efficiency throughout a 24-hour cycle. The system's energy management software will give camp administrators the ability to prioritize and schedule the delivery of power based on residents' most critical needs.

While refugee camps are traditionally powered by diesel generators, diesel is more expensive than renewable energy and is dangerous to transport in a volatile region. Once the system delivers sufficient energy to the camp's households, it can then begin to tackle the clinic and school, for example, which currently rely on diesel generation.

JinkoSolar has developed and delivered a number of off-grid microgrid projects pairing solar, energy storage, and other resources in Asia, Africa.

Figure 1: Project Photos

SYSTEM TECHNICAL SPECIFICATIONS

DC Data	JKS540K-500H	JKS1080K-500H	JKS1620K-500H
Battery Chemistry	Lithium Iron Phosphate (LFP)		
Cell Life Cycle			
Cell Specification			
Battery System Configuration			
DC Rated Energy Capacity			
Rated Voltage			
Voltage Range			
BMS Communication Interface			
BMS Communication Protocol			
Max.PV Input Voltage			
Standard/Max PV Power			
MPPT voltage range			
MPPT voltage range@full load			
AC Data			
Rated AC Power			
Maximum AC Power			
Rated Voltage			
AC Rate of Current			
THDi			
Power Factor			
Rated Frequency (Hz)			
AC Connection			
STS Power			
STS Switching Time			
General Data			
Dimension (W*D*H)			
Weight			
Degree of Protection			
Operating Temperature Range			
Relative Humidity			
Max. Working Altitude			
Cooling Concept of DC hatch			
Communication Interfaces			
Certifications			

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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