ZOE
ENERGY STORAGE

HOW TO ADDRESS MODERN ENERGY MANAGEMENT CHALLENGES

1290kWh C&I Solar & Storage Project in Sweden

Capacity: 0.63MW/ 1.29MWh
Location: Katrineholm, Sweden
Application: Solar Energy Storage

ETC Solpark is a demonstration park dedicated to promoting renewable energy and sustainable technologies. The park is equipped with extensive solar photovoltaic installations, with a capacity exceeding 4,000,000W, aimed at supplying clean electricity to the local area while advancing the adoption and education of solar technologies. However, as the solar capacity continues to expand, ETC Solpark faces challenges related to energy absorption and power balancing.

The Challenge

· **Energy Waste Due to Excess Solar Power:** When solar generation exceeds demand, the traditional grid lacks sufficient storage capacity, leading to energy waste and increased pressure during peak periods.

· **Limited Flexibility and Demand Response:** Conventional systems struggle to adapt to market fluctuations, missing opportunities for cost savings and revenue generation.

The Solution

ZOE Energy Storage partnered with ETC Solpark to deploy six 215 kWh Z BOX-C BESS to store surplus solar energy during peak production and release it during high demand or nighttime, reducing waste and easing grid strain. The Z BOX-C also supports grid services like FCR-D and FFR, providing flexibility to adapt to market changes and boost profitability.

Why ZOE

· Combines CATL battery cells, liquid cooling, and smart management for safe, efficient storage.

· Extensive project experience ensures reliable implementation and tailored solutions.

· Strong technical support and comprehensive after-sales service.

Benefits

· **Increased Storage Capacity:** Supports higher energy needs.

· **Balanced Supply & Demand:** Ensures grid stability.

· **Reduced Grid Reliance:** Decreases dependence on traditional energy.

· **Revenue Opportunities:** Generates extra income through grid services.

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Gahangir Sarvari
CEO of ETC Elproduktion

The investment in the energy storage system, which amounted to approximately five million kronor, stabilizes the power grid through frequency trading. The investment pays off in 4-5 years, and after that, it becomes a revenue source for the solar park. Additionally, the batteries allow us to store our solar energy for use during the night, further reducing our reliance on external electricity."

Sasan Andik
Power electronic engineer of ETC Elproduktion

We are glad to start testing the Zoe brand battery in our Solarpark for frequency handling. 1290 kWh battery with a rated outpower of 630kW. "

Z BOX-C 215kWh All-in-one C&I BESS

105kW / 215kWh | 0.5C

General data			
DOD	95%	Relative humidity	5% ~ 95% RH
Protection degree	IP 55 (Battery room&PCS room)	Max.working altitude	2000 m
Cooling method	Liquid cooling/ heating	COM interfaces	RS485/ Ethernet/ 4G (optional)
Fire suppression system	Aerosol	Dimensions (L*W*H)	1344*1399*2080 mm
Operating temperature range	-20 ~ 55 °C	Weight	2450±50 kg

Battery data	
Cell type	LFP
Rated capacity	280 Ah
Serial-parallel type	1P240S
Rated capacity per pack/ number	43.008 kWh/ 5
System rated energy capacity	215.04 kWh
Rated DC voltage/ voltage range	768 V/ 672~864 V
Rated DC current	140 A

AC data	
Rated AC power	105 kW
Rated AC voltage	400 Vac
Rated frequency	50/60 Hz
Rated AC current	152 A
Max. AC current	167 A
AC wiring type	3W/N+PE
Power factor	-1 ~ 1

About ZOE Energy Storage

Headquartered in Shanghai, ZOE integrates R&D, manufacturing, and operations in energy storage, with factories producing 14 GWh annually. ZOE's focus on advancing storage technology ensures sustainable and scalable energy solutions.

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