

# Project Highlights



**HANCHU ESS** is one of the global leaders in energy storage and smart digital energy industry with complete systems all over the world and yearly capacity exceeds **8GWh**.

HANCHU ESS was established in 2018 by experienced experts in different industries including solar Pv, energystorage and smart digital energy. Since the establishment, HANCHU ESS has been offering unigue and reliableproducts and solutions in energy storage products, smart charging and digital energy sectors, etc.

With the ambition of providing continuously smart and affordable energy solutions globally, hundreds ofHANCHU ESS professional engineers and R&D experts work diligently to deliver smart digital energy storagesolutions across residential, C&I and utility scenarios.

In collaboration with worldwide partners, HANCHU ESS is committed to promoting the integration ofcutting-edge digital energy technology and advanced manufacturing. HANCHU ESS aims to enable more people to enjoy a greener and cleaner energy future by constantly pushing the boundaries of innovation.

- Products Delivery **200,000+**
- Annual Production Capacity **8GWh**
- Worldwide Employees **500+**
- R&D Team **45%**

# Contact

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Generation and Grid-Side Energy Storage Case Studies

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Commercial and Industrial Energy Storage Case Studies

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Residential Energy Storage Case Studies



# GD Power Development Co., Ltd. Wuliji Phase III 100MW Wind Power Project

Extreme Environment Energy Storage  
Solution:

Multi-Protection Containerized Energy  
Storage System in the Unmanned  
Border Zone between China and  
Mongolia

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## Project Scale

*The total energy storage capacity for this project is 30MW/60MWh.*

## System Solution

The system comprises eight energy storage units of 3.45MW/6.63552MWh each and one unit of 3.45MW/7.00416MWh, utilizing a 1500V energy storage system design. Equipment is housed in 40-foot standard containers with 300Ah lithium iron phosphate (LiFePO<sub>4</sub>) battery cells, achieving a protection rating of IP67. Each container provides an impressive storage capacity of up to 6.6MWh.



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## Technical Features

Located in the unmanned border region between China and Mongolia, this project faces extreme and variable climatic conditions, such as hailstorms and sandstorms, alongside frequent natural disasters.

Therefore, we have implemented enhanced multi-layer protective designs for the containers to ensure stable operation of the project.

- ✓ High corrosion resistance and optimized heat dissipation for high-temperature environments.
- ✓ Enhanced waterproofing, anti-condensation features, and an internal drying system.
- ✓ Sandproof and earthquake-resistant design to prevent erosion from sand and wind.
- ✓ Anti-oxidation measures and specially designed wiring to withstand strong UV radiation.
- ✓ Security measures and dynamic monitoring to ensure asset safety.

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## Hainan 200MW Agrivoltaic Greenhouse + Energy Storage PV Project

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Empowering Hainan's green development by launching an advanced containerized energy storage project, providing clean energy to the island.

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### Project Scale: 25MW/50MWh

The system consists of seven 3.45MW/6.88128MWh sub-units and one 1MW/2.064384MWh sub-unit.

It includes 15 energy storage battery containers and 8 energy storage step-up transformer containers.

These transformer containers are interconnected in a daisy-chain configuration and connected to a 35kV busbar at the step-up station, with a grid connection voltage level of 35kV.



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## Generation and Grid-Side Energy Storage Case Studies

### Technical Features

The Hainan project cluster consists of three energy storage stations of equal scale, located in Yazhou, Ledong, and Chengmai. Positioned in a subtropical zone, these sites are subject to extreme weather conditions such as typhoons, extended rainy seasons, warm, moist oceanic airflows, and high salinity levels—all of which can significantly impact equipment lifespan. To address these challenges, we implemented sealed designs and selected high-corrosion-resistant materials to strengthen protective measures.

- ✓ C4 anti-corrosion rating to ensure electrical insulation performance.
- ✓ Advanced liquid cooling technology for optimal heat dissipation.
- ✓ Enhanced waterproofing, anti-condensation features, and an internal drying system.
- ✓ Reinforced sealed design to effectively withstand high-salinity environments.
- ✓ Anti-oxidation measures and specially designed wiring to resist intense UV radiation.



# Jiangsu Shenneng Liulaozhuang Integrated Energy Storage Project

(Northern Jiangsu's First Independent  
Centralized Advanced Energy Storage  
Station)

**Phase I construction capacity:  
120MW/240MWh**

## Project Overview

The total energy storage capacity is 120MW/240MWh, organized into 24 sub-units of 5MW each. The system includes 48 energy storage battery containers and 24 energy storage step-up transformer containers. Six of these transformer containers are interconnected in a daisy-chain configuration, feeding into four 35kV collection cabinets. The grid connection voltage level is 35kV, and the primary transformer voltage level is 220kV.

Construction Timeline: June 2024 - July 2024

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# CHN ENERGY Investment Group Co., Ltd Longyuan Power Jiangsu Yancheng Shared Energy Storage Project

## 80MW/160MWh Energy Storage (Liquid Cooling)

### Project Overview

The total energy storage capacity is 80MW/160MWh, organized into 24 sub-units of 3.35MW each. The system includes 48 energy storage battery containers and 24 energy storage step-up transformer containers. These transformer containers are interconnected in a daisy-chain configuration, connecting to four 35kV collection cabinets. The grid connection voltage level is 35kV, with a primary transformer voltage level of 220kV.

June 2024 - July 2024

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# Suzhou Sishonbio-Cellulose Co.,Ltd. Energy Storage Station Project

(Ranked First Nationwide in Operational Efficiency)

## 7.5MW/20MWh Energy Storage (Liquid Cooling)

### Project Overview

This project, jointly invested by China Three Gorges Corporation and contracted by Power Construction Corporation of China EPC, features HANCHU ESS Technology as the core equipment supplier, providing an integrated energy storage system solution along with comprehensive support to ensure smooth project acceptance and grid connection. The energy storage system is designed with a capacity of 7.5MW/20,127744MWh and includes 54 outdoor liquid-cooled battery cabinets, 6 combiner control cabinets, 3 integrated inverter-transformer units, a 40-foot centralized control container, and 12 10kV switchgear units.

Construction Timeline: July 2023 - November 2024



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# Huaqiang Chemical Group Stock Co., Ltd. Energy Storage Station Project

(Central China's Largest User-Side Energy Storage Benchmark Project)

18MW/37MWh Energy Storage (Liquid Cooling)

## Project Overview

This project utilizes HANCHU ESS Technology's independently developed third-generation standardized distributed energy storage liquid-cooled cabinet solution. It includes 101 outdoor liquid-cooled cabinets of 372kWh each, 11 control combiner cabinets, 6 integrated 3.45MW inverter-transformer units, a 35kV step-up substation, and an EMS energy management system. The standardized products, proven solutions, and efficient project management have enabled smooth construction, significantly reducing construction time and labor costs, allowing the enterprise to realize storage benefits earlier.

Construction Timeline: October 2023 - March 2024



# Hungary Ganz 3.7MWh

( Europe's First Commercial and Industrial Energy Storage Project)

As HANCHU ESS's First Overseas Commercial and Industrial Project in Europe, Located in Tápiószele, Hungary, this Project Marks a Milestone in Expanding HANCHU ESS's Dual-Track Solutions for Residential and Commercial Energy Storage, Further Advancing the Company's International Business Strategy.

This solution uses nine "CESS-418K-S" energy storage cabinets from HANCHU ESS, along with one PCS and combiner cabinet. Unlike centralized containerized systems, it offers high performance, better safety, flexible deployment, and easy installation, making it adaptable to various needs. Its compact design saves space and is easy to transport. With IP54 protection, a dual fire protection system, and certifications for electrical safety, electromagnetic compatibility, and transport (UN 38.3), the system is both secure and compliant with high safety standards.



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# 03

## Residential Energy Storage Case Studies





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