JDENERGY

CREATE A BETTER LOW-CARBON LIFE

Xi'an JDEnergy Co., Ltd.

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Xi'an JDEnergy Co., Ltd.

Empower a Better Low Carbon Life

Lead in Distributed Energy Storage

JDENERGY

No.1 in C&I ESS for two consecutive years

2026.02(V4.0)

Singularity is the Origin of Time and Space

Xi'an JDEnergy Co., Ltd.

Dedicated to Solving the Imbalanced Temporal and

Spatial Distribution of Clean Energy by the Energy Storage Technology

Contributing Industry-leading Energy Solutions

for Sustainable Human Development

COMPANY PROFILE

Based on Xi'an Jiaotong University, Xi'an JDEnergy Co., Ltd. was co-founded by renowned technologists in power electronics and a group of senior engineers with doctoral or master degrees over ten years of development experience in 2018. It is committed to the technical research and product development of core equipment in advanced energy storage systems, contributing industry-leading solutions to promote access to large-scale clean energy and achieve global carbon neutrality goals.

JDEnergy, with the mission of "reliable clean power for everyone," aims to "drive the large-scale application of energy storage by innovating power electronics and IoT technology, making energy cleaner and more user-friendly". Taking advantage of high-efficiency energy storage and conversion technology, IoT, and big data research, it has promoted the transformation of the global energy mix, increased the proportion of clean energy, and brought unfailing light and power to electricity-short regions. That's how it improves the living environment of humanity with stable and user-friendly clean electricity.

Mission

Reliable clean power for everyone

Vision

Being a 100-grade GWh Energy Storage Provider

Values

Focus, Improve, Open, Contribute

JDENERGY

DISTRIBUTED ENERGY STORAGE LEADER

2018-2020

Laying the Foundation

- JDEnergy Startup
- The founding team was built
- The direction of the distributed energy storage has been set
- Angel Round Financing was obtained

2021-2022

Shaping the Edge

- World's first launch of distributed eBlock smart energy storage system
- The first grid-side energy storage flagship project of
- eBlock was connected to the grid
- The first 100-grade MWh shared energy storage station project was signed
- The A round financing worth RMB 300 million was completed
- The A+ round financing was completed
- eMind2000 cloud platform was launched New products eBlock372、eBlock200 were released

2023-2024

Leading the Industry

- No.1 in C&I Energy Storage Shipments in 2023
- No.1 in C&I Energy Storage Shipments in 2024
- Completed B round financing worth nearly RMB 800 million
- Completed C round financing of RMB 300 Million
- New products including eBlock418、eBlock745、eBlock230 were released.
- New products including eBlock100C、eBlock261、eBlock836、eStation-HV35-5160 were released.
- Delivered first overseas C&I energy storage project
- Delievred the world's largest string energy storage solution
- Delievred world's largest grid-side distributed modular energy storage power station

2025-

Empowering the Future

- Delivered the first GWh-level project — Neimeng Dengkou Project
- New products including Galaxy 1 and eStation MV-6880 were released
- eBlock-418, eBlock-100C, and eBlock-250 successfully passed UL 9540A certification; eBlock-418 and eBlock-250 obtained IEC 62933-5-2 certification
- Delievred the world's largest grid-side distributed modular energy storage power station—Yunnan CNNC Linxiang 200MW/400MWh Energy Storage Project

LEADING SCIENTIFIC AND TECHNOLOGICAL INNOVATION

JDEnergy has brought together over a hundred top technical talents, led by industry-leading experts and backed by Xi'an Jiaotong University, to form an innovation team with strong scientific research strength.

We have established comprehensive electrochemical energy storage and electronics laboratories, along with a platform for electrochemical energy storage and electronics research, encompassing every aspect of battery PACK structural design, and R&D of battery management system (BMS), modular power conversion system (PCS), and energy management system (EMS), and enabling us to achieve independent R&D and system integration capabilities.

- **"2024 Energy Storage Technology Innovation Model TOP10" in the 8th International Energy Storage Innovation Competition**
- **EESA Best System Integration Solution Provider**
- **EESA Most Influential Enterprise**
- **CY Zone's Top 100**
- **China's top 50 Technology**

CORE TECHNOLOGY

Productized Integration Design for Energy Storage

Highly Standardized Integrated Products
Safety and Reliability Design
Ultra-high System Conversion Efficiency
Rapid Deployment and Extensibility
Environmentally Friendly and Sustainable

Modular Power Conversion System (PCS)

High System Conversion Efficiency
Internal Intelligent Control
Broad Operating Range and Adaptability
Integration and Standardization
Remote Monitoring and Maintenance

Battery Management System (BMS)

High-precision Measurement and Control
Highly Integrated Optimization
Dynamic Balancing Technology
Intelligent Prediction and Health Management
Multiple National Patents and Certifications

Battery PACK Design

High Modularization
Flexible Multi-layered Safety Protection Mechanisms
Lightweight and Compact Design Internal
Internal Intelligent Monitoring and Management
Adaptability to Diverse Environments

Energy Management System (EMS)

Full System Integration Control
Dynamic Balancing and Resource Scheduling
Safety Protection and Fault Warning
User-friendly Interface and Remote Management
Flexible Expansion and Customized Services

RANKED FIRST IN C&I ENERGY STORAGE SHIPMENTS FOR TWO CONSECUTIVE YEARS

With prominent installed capacity, drive the industry forward

Cumulative installed capacity exceeded 10GWh

User side capacity reached 3GWh, demonstrating robust energy allocation strength

By the end of 2024, the system has operated safely and reliably for over 2002 days, setting a benchmark for the industry

Significant Investment in R&D Innovation to Build a Technology Highland

By the end of 2024

Recognized for technical excellence with 233+ authoritative certifications and testing reports

Secured over 163 technical patents, driving innovation-led growth

Maintains high R&D investment, exceeding 10% of annual revenue, to explore and push the boundaries of cutting-edge technology

Collaborating with Industry Chain Partners to Write a New Chapter of Win-Win Cooperation

Partnering with Over 155 Strategic Partners Globally to Build an Extensive Business Network

In-depth Cooperation with Over 30 Financial Institutions to Strengthen Capital Chain Support

Strategic Collaborations with Over 20 Top Design and Research Institutes Jointly Laying a Solid Foundation for Technological Innovation and Project Implementation

Actively Promoting Efficient Consumption of Green Electricity, Demonstrating Environmental Protection Mission

In this project, CO_2 emission reduction exceeds 1,200,000 tons, equivalent to protecting vast forests from deforestation, with a conservative estimate of the carbon sequestration potential greater than over 650,000 trees.

The project also conserves over 39.5 tons of standard coal, significantly reducing dependence on fossil fuels, a feat that decreases environmental pollution, and promotes efficient and clean energy utilization.

LEAN PRODUCTION AND EFFICIENT DELIVERY

With capacity acceleration and smart manufacturing, we aim to become the first to reach the milestone of 20GWh by 2025

By the end of 2025, JDEnergy's production capacity will reach 20GWh. It adopts top-level automated production lines, covering module PACK, PCS production and system assembly and debugging, and is monitored by the MES system throughout the process to ensure production stability and information traceability, effectively guaranteeing product quality and safety, and demonstrating manufacturing strength and market competitiveness.

By the end of 2026

Source-grid Side

Accumulated projects exceeds
6 GWh

Largest Single Project Capacity
2000 MWh

User Side

Accumulated projects exceeds
3 GWh

Number of Power Stations exceeds
2000

CAPITAL TRUST AND WIN-WIN COOPERATION

At the crucial juncture of today's energy transition, JDEnergy, with its cutting-edge technology and efficient solutions, has not only set a benchmark within the industry but also rippled through the capital markets, attracting the eager attention of numerous investors. This strong capital trust is not only a testament to the high recognition of JDEnergy's technological innovation potential but also a manifestation of confidence in its ability to drive green and sustainable development.

Guided by a concept of win-win cooperation, JDEnergy fosters an open cooperation ecosystem, collaborating closely with strategic partners worldwide. From technology R&D to market application, project investment to operational services, every link strives for deep integration to jointly explore the limitless possibilities of the energy sector. Through resource sharing and complementary advantages, JDEnergy and its partners are advancing the optimization and upgrading of the global energy structure at an unprecedented speed and efficiency, leading the industry towards a cleaner, lower-carbon future.

APPLICATION SCENARIOS

As a pioneering provider of distributed smart energy storage system solutions, JDEnergy's business layout comprehensively covers the entire "source, grid, and load" scenarios within the energy industry chain, showcasing its profound comprehensive strength and extensive application capabilities in the field of energy storage.

Source Side Energy Storage Applications

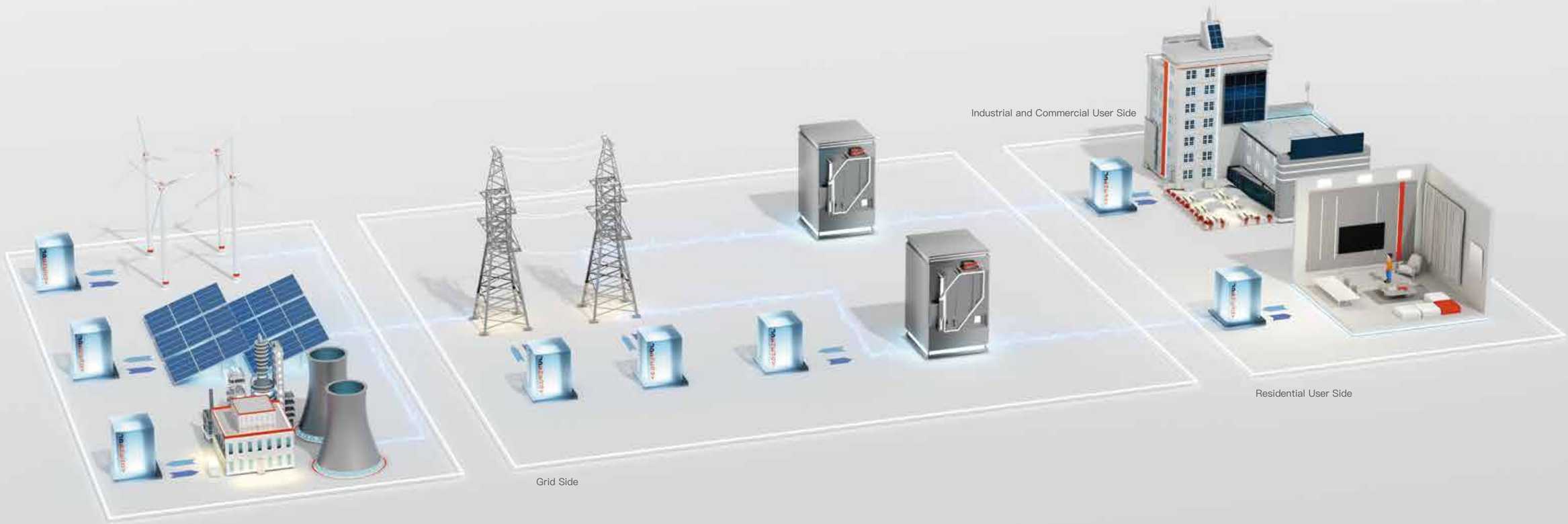
On the power generation side, including renewable energy bases such as solar power stations and wind farms, JDEnergy's energy storage systems can smooth out intermittent energy output, enhancing power quality and availability.

Grid Side Energy Storage Applications

Within the transmission and distribution network, JDEnergy's energy storage solutions aid in peak shaving and valley filling, balancing supply and demand conflicts, and enhancing grid flexibility and resilience.

User Side Energy Storage Applications

For end-users such as commercial buildings, industrial users, and electric vehicle charging stations, JDEnergy offers customized user side energy storage systems, assisting users in achieving energy autonomy and optimization, including peak-valley electricity price arbitrage, backup power supply, demand management, and participation in virtual power plants.



Source Side

Grid Side

Industrial and Commercial User Side

Residential User Side

SYSTEM DESIGN CONCEPT

Based on the "Internet of Things" system design concept, JDEnergy has structured its architecture into distinct layers: Device Layer, Connectivity Layer, and Data Management Layer.

The core products encompass the eBlock, eLink, and eMind. This solution facilitates a modular, efficient, and secure design that scales from 100-grade small-scale storage units of kWh to large-scale energy storage stations of GWh, addressing common industry challenges such as low system security, high parallel capacity loss rates, and short system lifespan in traditional centralized storage solutions. It defines the new standard for energy storage system integration.

eBlock

The Device Layer comprises the eBlock

The eBlock adopts an "All In One" design concept, highly integrating high-longevity battery cells, a BMS, a PCS, an active safety system, and a thermal management system. Each eBlock functions as a standalone, compact energy storage unit. By coupling eBlock on the AC side, we enable a modular expansion from 100-grade small-scale storage units of kWh to large-scale energy storage stations of GWh.

- High-longevity Battery Cells
- Active Safety System
- BMS
- Thermal Management System
- PCS

eLink

The Connectivity Layer is constituted by the eLink

Serving as the bridge in comprehensive energy storage solution, eLink ensures efficient and stable transfer and management of energy flows and information streams between eBlock, as well as between eBlock and external systems. This ensures the overall coordinated operation and intelligent control of the energy storage system.

- Energy Flow Transfer
- Information Flow Transfer
- Parallel Cluster Control

eMind

The data management layer is composed of the eMind

eMind serves as the command center for energy storage solutions, providing comprehensive management and optimization of distributed energy storage systems through a cloud-based platform. It ensures efficient, safe, and intelligent operation of the system. Specific Functions:

- Operation Scheduling
- Web-based Monitoring and Management
- Risk Management Warning
- Mobile Application
- Data Analysis
- Cloud Data Storage

“ALL IN ONE" DESIGN CONCEPT

"The core of the 'All in One' design concept lies in integrating high-longevity battery cells, BMS, PCS, active safety system, and thermal management system into a standardized outdoor cabinet, creating an integrated, plug-and-play smart eBlock." This design directly transforms energy storage solutions from complex engineering projects into convenient products. It significantly reduces installation and O&M costs and accelerates market adoption and proliferation.

Safe And Stable

Economical and Efficient

Intelligent Operation and Maintenance

Grid Friendly

High-performance Multifunctional PCS

All-in-one Integrated Design
Three-level topology
Maximum Efficiency
Intelligent Distribution Management

High-efficiency Balanced BMS

Core Technology — Balancing Technology
Eliminating Series Losses
Intelligent Dynamic Management
Improve System Security and Reliability

High-longevity Battery Cells

LFP Cell Material
Ultra-long Cycle Life
Energy Density and Cost Effectiveness
Environmental Adaptability

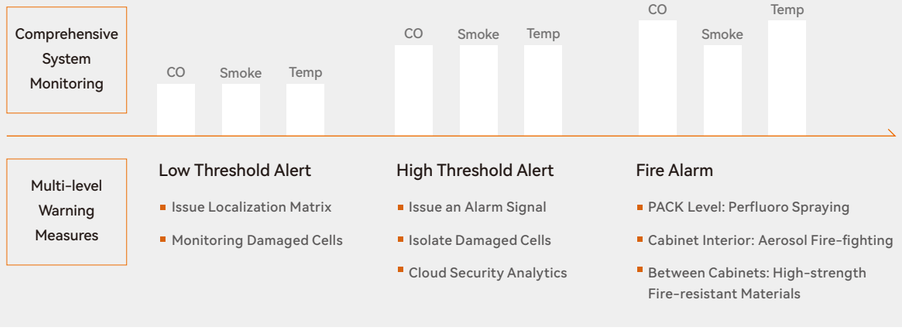
Efficient Thermal Management System

Precise Temperature Control Targets
Energy Recovery and Utilization
Structural Optimization and Integration
Enhance System Security and Stability

SAFE AND STABLE

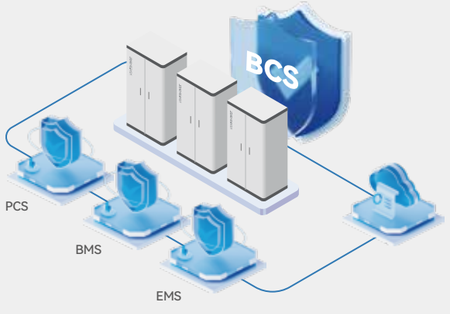
Safety Warning System Design

Comprehensive monitoring of CO and other harmful gases, smoke concentration, and temperature, with multi-level warning measures. AI health management enables precise issue identification through cloud-based analysis, while fire protection systems are used to mitigate fire incidents.”



BCS Control and Protection System

New eBlock Control System to Eliminate Control and Protection Blind Spots



Reduce interaction losses between PCS, BMS, and EMS, improve control accuracy, and accelerate response time.

Cell Level Management

Monitor Individual Cell Voltage, Current, and Temperature

Battery Overvoltage and Undervoltage Management

Battery Overtemperature and Low-Temperature Management

System-Level Control

Identification of system state information such as SOC and SOE

Systematic battery monitoring and balancing

Systematic energy scheduling and strategic control

Multiple fire protection system design

Multiple fire protection designs to avoid large-scale safety risks

Step 1

PACK-level fire protection

- Perfluoro vaporization for heat absorption
- Programmable multiple-point injection
- Large dosage for flame retardancy

Step 2

Aerosol fire protection inside the cabinets

- Rapid diffusion and efficient fire fighting
- User-friendly, resistant to aging
- No residue, environmentally friendly

Step 3

Compartmentalized isolation between cabinets

- Special heat-resistant and high-temperature materials
- 1.5-hour fire resistance test compliance of the cabinets
- Prevention of large-scale fire incidents

ECONOMICALLY EFFICIENT

Enhancement of storage and discharge capacity

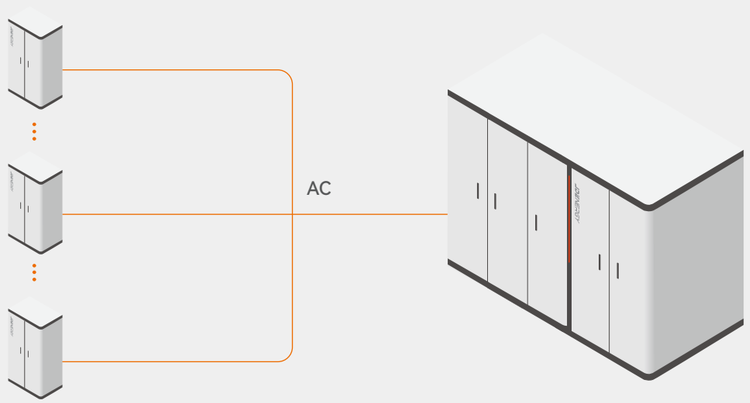
Zero capacity loss rate of parallel connection, significantly increase of system storage and discharge depth, enhancing full-life-cycle energy throughput capacity

■ **Traditional centralized solution**

DC side parallel connection, severe circulation current issues

Storage and discharge depth 90%

■ **Distributed eblock solution**



DC side series connection with independent charging and discharging

Improved conversion efficiency

System AC side conversion efficiency ≥90% under rated conditions

Vector control algorithm

Efficiency improvement by 0.5%

Reduced internal switching losses, enhanced efficiency

Optimal battery and PCS matching

Efficiency improvement by 0.3%

Optimal design for battery pack voltage and PCS efficiency curve

Optimal design for thermal management

30% reduction in energy consumption

Independent cooling unit pipeline / optimal control strategy

Flexible deployment and scalable expansion

eBlock is highly integrated, compact size adapting to various application environments

Centralized deployment

Distributed deployment

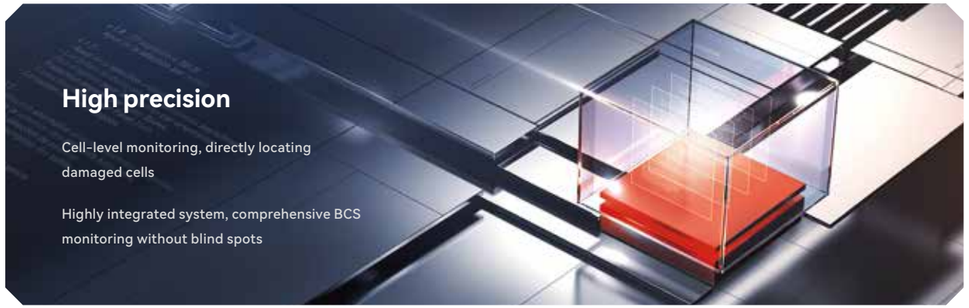
Combined storage and charge

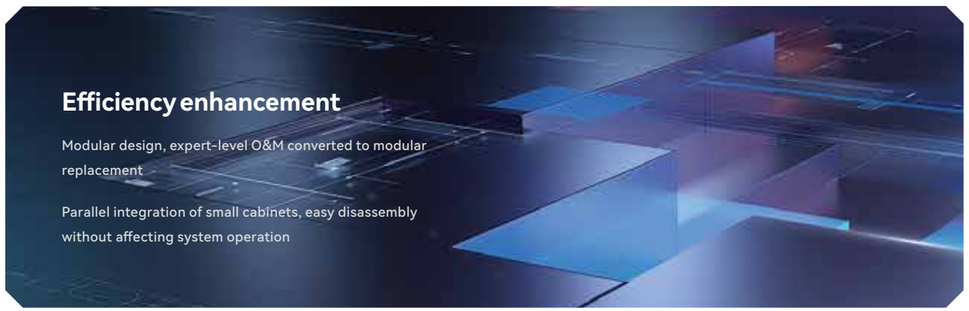
INTELLIGENT OPERATION AND MAINTENANCE

Significantly reduced O&M costs

Fine-tuned cloud-based O&M of the eBlock with higher accuracy, higher efficiency and lower costs

■ **eBlock solution**





GRID FRIENDLY

JDEnergy's modular energy storage solution, after extensive research and development, not only meets the 18 grid connection testing requirements of CEPRI, but also equips the new generation of eBlock products with networking capabilities. Through a self-developed three-level topology architecture—comprising the device layer, array layer, and station layer it can accommodate the networking of thousands of PCS units simultaneously. It meets industry needs for black start, frequency stabilization, harmonics suppression, and 100% renewable energy integration at the source-grid side.

Operation in weak network

In weak network conditions, JD's energy storage system can continue to operate stably, ensuring that even when the grid's SCR is less than 1.2, the energy storage station still provides reliable power supply to users.

Primary and secondary frequency control support

The system supports both primary and secondary frequency control, allowing it to quickly respond to grid frequency changes by automatically adjusting power output, thereby helping to stabilize the grid frequency.

High-speed energy scheduling

JDEnergy could efficiently dispatch active and reactive power output from the energy storage system, enabling rapid switching between charging and discharging modes.

Fault Voltage Ride Through Capability

The design of the energy storage system incorporates robust fault voltage ride through capability, enabling storage devices of JDEnergy to continue operating stably and actively recover the grid in the event of voltage sag caused by grid faults.

Inertia Control

Energy storage system of JDEnergy boasts powerful inertia support capability to rapidly respond to grid frequency disturbances by providing prompt virtual inertia services, so as to ensure the operation security of the grid.

PRODUCT INTRODUCTION

eBlock 250

Intelligent energy block eBlock-250
125kW/250kWh Energy Storage System

Intelligent operation and maintenance

- Modular energy block design, modular spare parts, more convenient maintenance.
- Data, video high-speed access to the cloud, remote active fire extinguishing, to achieve true unattended
- Profits are clearer, data is more transparent,operation and maintenance is easier.

Ultimate

- Multi-layer fire protection, rapid suppression of thermal runaway
- The top is equipped with a burst valve to prevent the risk of ignition and explosion
- Battery health AI management, early warning of failure battery
- Noise reduction by 50%, suitable for large commercial buildings, parks and other areas

Efficient and flexible

- High energy density, no junction cabinet, saving floor space
- PCAK/PCS modular design, reduce failure loss, high online system rate
- Single cluster management, no intercluster circulation, improve the system power generation
- Full liquid cooling, long system life, lower auxiliary power consumption

Quick installation

- Modular products plug and play
- Automatic SOC balancing between modules
- Equipment foundation no digging trench, save the site civil construction cost
- With the functions of parallel off-grid, backup power, three-phase imbalance management, etc.
  Suitable for various application scenarios

SYSTEM DATA

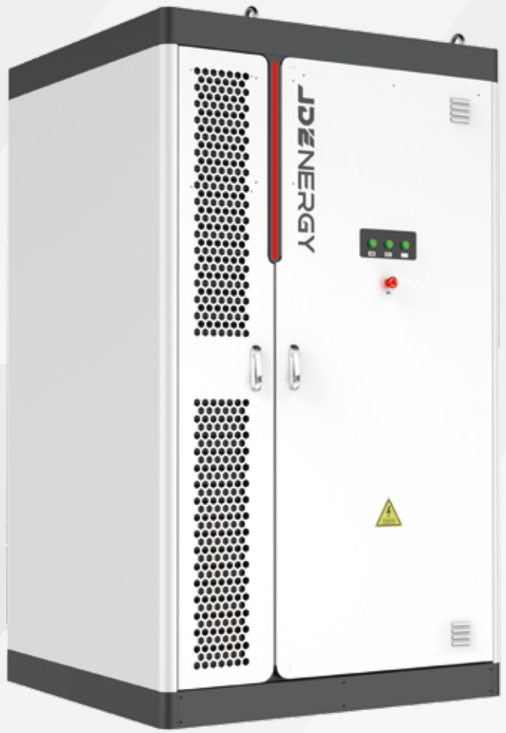
Cell Type	LFP 3.2V/314Ah
Battery grouping method	260S1P
Battery capacity	250kWh
Battery voltage range	728~936V
AC rated power	125kW
AC Rated Frequency	50/60Hz
Rated Voltage Range	400V(-15%~10%)3L/N/PE
Maximum system efficiency	⩾90%
Depth Of Discharge	100% DOD
communication interface	LAN
AC current distortion rate	<3%
DC component	< 0.5%lpn
Number of cycles	⩾7000 Cycles
System protection level	IP55 (battery cabinet)
Operating Temperature	-35°C~55°C (45°C-55°C derating)
Operating humidity	0%RH ～ 95%RH（No condensation）
Noise	< 80dB
Altitude	⩽2000m
Thermal management methods	Liquid cooling (battery)
Certification	CQC、LVRT/HVRT, IEC 62477, IEC 61000, VDE 4105, CEI 0-16, CEI 0-21 EN 50549-1,EN 50549-2、UN38.3

MECHANICAL PARAMETER

Dimensions (L*W*H)	1000mm*1350mm*2400mm
Total Weight	2700Kg
Installation mode	install on the ground

eBlock 418A

Intelligent energy block eBlock-418A
209kW/418kWh | Energy Storage System



Economically efficient

- No Parallel Design on DC Side, 100% DOD
- High Efficiency Liquid Cooling Design
- Conversion Efficiency ⩾90% on AC Side

Ultimate Safety

- High-Temperature-Resistant Material that can Meet 2h Fire Resistance as the Shell.
- Integration of BMS and PCS, Realizing Fast and Comprehensive Protection.

Grid friendly

- Multiple Control Modes including Primary Frequency Control (PFC), Peak Shaving and Valley Filling, and High-Speed Scheduling.
- Heterogeneous Cluster Control Platform, achieving High-Speed Dispatching of Thousands of eBlocks at 100ms level.

Intelligent operation and maintenance

- Multi-parallel Connection, Realizing Flexible Expansion and Block Building of Energy Storage Power Station.
- Statistical Analysis of Big Data, Predicting Battery Cell Lifespan, Warning of Battery Cell Failures.

SYSTEM DATA

Cell Type	LFP 3.2V/314Ah
Battery grouping method	416S1P
Battery capacity	418kWh
Battery voltage range	1164.8~1497.6V
AC rated power	209kW (215kW Derating)
Maximum system efficiency	⩾90%
Depth Of Discharge	100% DOD
communication interface	LAN
AC current distortion rate	<3%
DC component	< 0.5%Ipn
Number of cycles	⩾7000 Cycles
System protection level	IP55
Working temperature	-35°C~55°C (45°C-55°C derating)
Working humidity	0%RH ～ 95%RH（No condensation）
Noise	< 80dB
Altitude	⩽2000m
Thermal management methods	Liquid cooling (battery)
Certification	IEC 62619 IEC63056、IEC 62477 IEC 61000 EN 50549 VDE 4110/、4120 CEI 0-16 UN 38.3

MECHANICAL PARAMETER

Dimensions (L*W*H)	1400mm*1300mm*2350mm
Total Weight	3800Kg
Installation mode	modular steel structure base

PCS DATA PCS/PCS-2000G2

System rated efficiency	⩾98%
Charging and discharging switching time	＜100ms
Communication interface	LAN
Protection grade	IP65
Cooling method	Air cooling
Operation temperature	-40°C~60°C
Relative humidity	0~95%RH
Max. working altitude	⩽2000m
Noise	＜80dB
Size (W * D * H)	630*1050*250
Weight	110kg
Certification	IEC 62477 IEC 61000 EN 50549 VDE 4110/ 4120 CEI 0-16

DC SIDE PARAMETERS

DC voltage range	1026~1500V
DC rated voltage	1263V
Max. DC current	209.5A
Max. DC power	258kW

AC SIDE PARAMETERS

AC rated power	215kW
AC rated current	180A
Rated grid voltage	690V
Low voltage ride through	Yes
High voltage ride through	Yes

eBlock 100C

eBlock-100C-IEC
50KW/120KWh Energy Storage System

Intelligent operation and maintenance

- Photovoltaic maximum 100kWp input, more choice for customer.
- Low voltage AC 400V three-phase four-wire 50Hz system output, plug and play.
- Modular energy block design, modular spare parts, more convenient maintenance.
- Data, high-speed access to the cloud, remote active fire extinguishing, to achieve true unattended.
- Profits are clearer, data is more transparent,operation and maintenance is easier.

Extreme Safety

- Multi-layer fire protection, rapid suppression of thermal runaway
- Bottom burst design to prevent the risk of explosion
- Battery health AI management, early warning of failure battery
- Noise reduction by 50%, suitable for large commercial buildings, parks and other areas
- The whole cabinet IP55 protection, C5 anti-corrosion adaptability, support a variety of differentiated extreme environment applications.

Efficient and Flexible

- Full liquid cooling (Pack+PCS) , long system life, lower auxiliary power consumption
- High energy density, small footprint, no need to design a junction cabinet, reduce equipment costs.
- Pack/PCS modular design, reduce failure loss, high availability system rate
- Single rack management, no inter rack circulation, improve the system energy charge/discharge capacity
- PCS and battery integrated design, side by side field layout more flexible

Easy Installation

- Modular products plug and play
- Automatic SOC balancing between Packs
- Equipment foundation no need excavation design, save the site civil construction cost With the functions of parallel off-grid, backup power, three-phase imbalance
- management, etc. Suitable for various application scenarios

SYSTEM DATA

Cell Type	LFP 3.2V/314AH
Configuration	128S1P
Nameplate Capacity	120kWh
Maximum System Efficiency	⩾86%
Depth of Discharge	100% DOD
Voltage Frequency	50Hz
Communication Interface	LAN
Number of Cycles	⩾7000 Cycles
System Protection Level	IP55 (battery cabinet)
Operating Temperature	-35°C~55°C (45°C-55°C derating)
Operating Humidity	0%RH ~ 95%RH (No condensation)
Noise	⩽75dB
Altitude	⩽2000m
Thermal Management Methods	Liquid cooling (battery+PCS)
Certification	IEC 62619, IEC 62477, IEC 61000,IEC 60730, VDE 4105, CEI 0-21,EN 50549-1, UN38.3

GRID DATA

Rated Voltage	400V (-15%~10%) 3L/N/PE
Rated Power	50kw
Rated Current	72.5A
Rated Frequency	50Hz
Maximum Input Power	100kVA
Maximum Input Current	144A

BACKUP DATA

Rate Output Power	50kVA
Maximum Output Power	55kVA/long-term；60kVA/1min
Rated Output Voltage	400V (-15%~10%) 3L/N/PE
Rated Frequency	50Hz

PV DATA

Maximum Photovoltaic Input Power	100kWp
Rated DC Input Voltage	720V
MPPT Voltage Range	150-900V

MECHANICAL PARAMETER

Dimensions (L*W*H)	1000mm*1000mm*2270mm
Total Weight	1600Kg

eStation MV-6880

eStation-MV-6880
6.88MW String PCS MV Station

High-Efficiency & User-Friendly

- Three-level topology string PCS module achieving a maximum conversion efficiency of 99%.
- Battery system supports deeper Depth of Discharge (100%DOD) for improved performance.
- Modular and scalable design: New battery packs can be seamlessly integrated into existing systems, and are compatible with different cell capacities within the voltage range.

Reliable & Safe

- Flexible scalability, supporting 430 kVA fold expansion up to 6.88 MVA.
- Optimized State of Charge (SOC) management to balance different battery clusters.
- Short-circuit breaking capability on both AC and DC sides for enhanced safety.

Environmental Adaptability

- Efficient liquid cooling with no derating at ambient temperatures up to 40 °C.
- Max. operating altitude: 2000m; suitable for high-altitude applications.
- IP66-rated power modules (with IP54-rated overall enclosure) protect against dust, water and salt spray. The welded steel enclosure is corrosion-resistant for harsh industrial/coastal environments, and all components are built for a 20 year lifespan.

Typical Application Scenarios

- Smooths power from large-scale solar PV and wind farms, storing excess energy and reducing output variability.
- Enables off-grid and backup operation with black-start capability, ideal for remote sites, telecom towers or island grids.
- Fast voltage/frequency regulation, peak shaving and emergency power for utilities and C&I customers.

PCS DC PARAMETERS

Max.DC Voltage	1500V
Number of DC Input	16
Max.DC Current	430A*16
Battery Voltage Range	1000~1500V
DC Voltage Ripple	＜2%
DC Current Ripple	＜3%

PCS AC PARAMETERS

AC Output Power	430kVA*16
PCS AC Output Current	360A*16
PCS AC Voltage Range	621~759V(Adjustable)
Nominal Grid Frequency	50/60Hz
Harmonic(THDi)	＜3%(100% load)
Power Factor	0.8lagging～0.8leading
Connection Phases	3P3W+PE

ENVIRONMENT

Max. altitude	2000m
Operating Temperature	-30°C~ 60°C
Relative Humidity	0~ 95%(no condensing)

TRANSFORMER

Rated Capacity	7100kVA
Isolation Mode	Oil-Immersed Transformer
Transformer Vector	Dy11y11
Transformer Oil	Mineral oil/FR3
Protection Level	IP54
Cooling Method	ONAN
Transformer Turns Ratio	10~35/0.69/0.69kV
Transformer Efficiency	Tier1/Tier2/＞99%@Pn
Anti-corrosion Grade	C5/C4/C3

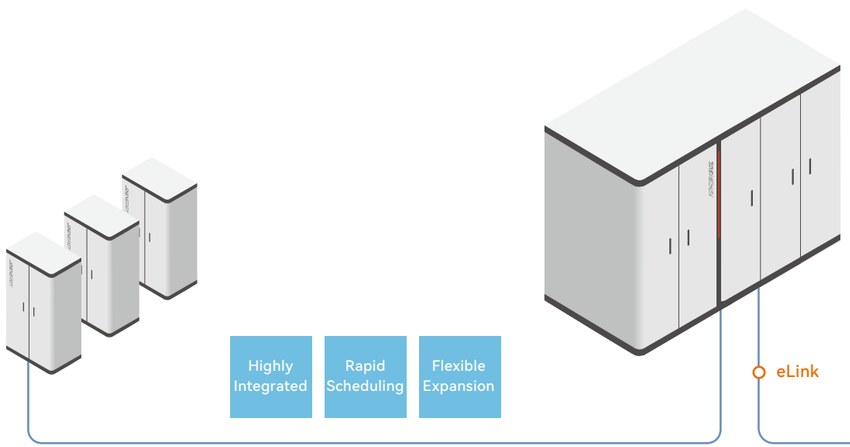
SWITCHGEAR

Switchgear Type	CCV/DCV/others
Insulating Medium	SF6
Rated Operating Current	630A
Switchgear Short Circuit Rating	20kA/3s or 25kA/1s

MECHANICAL PARAMETERS

Dimensions（L*W*H）	12,192mm*2,438mm*2,896mm
Total Weight	< 39000kg

SMART ELINK



Bidirectional Linking Unit for Energy Flow and Information Flow in Energy Storage System

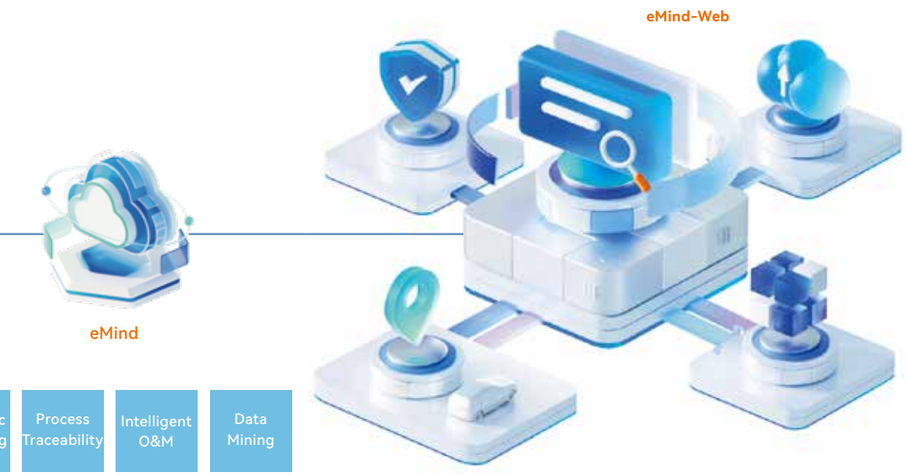
Energy Flow

eLink connects the eBlock downward and connects to the user's power distribution system upward, completing the convergence of AC power output, control protection, metering, and realizing bidirectional linking and management of energy flow.

Information Flow

eLink serves as a bridge between eBlock and eMind, enabling high-speed communication of local and cloud data, and providing reliable data acquisition, storage, and control management for eMind.

DATA MANAGEMENT LAYER



eMind Products

The eMind product is a comprehensive suite of application services for energy storage systems, encompassing aggregated data display, strategic control, operational analysis, and big data mining. Based on a microservice architecture, it can be flexibly deployed on either public or private clouds.

The adoption of a trunk sequential database storage method enables the eMind to possess the capability of displaying and storing the voltage and temperature of each battery cell within an energy storage system at a second-level resolution. It supports the traceability of the energy storage station's operational data for any past time period and the recording of fault break points.

Through big data statistical analysis, it has achieved the mining and analysis of thermal management operation data of energy storage equipment and battery health, empowering decision-making and risk prediction for energy storage stations, allowing them to truly operate without the need for on-site personnel.

ALL SCENARIO SOLUTION

Source Side Solution

The energy storage system provides energy storage and output management functions on the source side, optimizing the power generation output curve, reducing the wind and solar power curtailment of new energy sources, increasing the proportion of renewable energy generation, and simultaneously offering system inertia control and peak shaving/frequency regulation functions, optimizing the energy structure.

Project Application

- Utilizing renewable energy peak shaving and valley filling
- Smoothing random power fluctuations
- Frequency regulation ancillary services
- Providing reserve capacity
- Scheduling and tracking of wind and solar farm

Grid Side Solution

The energy storage system provides smart load management for the grid, adjusting peak shaving and frequency regulation based on the grid load conditions, while ensuring stable operation of transmission and distribution equipment, accommodating more renewable energy, and providing robust support for the transmission of new power systems

Project Application

- Responding to peak shaving and frequency regulation commands to obtain replenishment
- Reducing pressure on transmission and transformation equipment, mitigating capacity congestion
- Dynamic reactive power support, ensuring stable grid operation
- Delaying the expansion and upgrade of transmission and distribution capacity, reducing grid costs

Advantages of source-grid side solutions

Solution Highlights

Support grid stability control strategies such as primary and secondary frequency regulation, high and low voltage ride-through, AGC/AVC scheduling, and inertia control

The battery system rapidly responds to grid frequency regulation commands with a response time of less than 50ms

Customized comprehensive energy solutions tailored to scenarios, fully addressing the demands of customers on source-grid side

User Side Solutions

The energy storage system provides highly efficient energy management services tailored for industrial, commercial, and residential users. By peak shaving and valley filling, responding to demand-side fluctuations, and managing overall energy demand, it enables substantial cost savings across the entire electricity consumption cycle. Additionally, its versatility extends to supporting innovative applications like backup power for communication infrastructure, integrated photovoltaic-storage-charge systems, and virtual power plants, thereby bolstering power reliability and facilitating the rapid evolution towards a more advanced and sustainable power grid

Project Application

- Enhance the consumption capacity of distributed renewable energy
- Reduce demand-based electricity charges
- Promote peak-valley arbitrage based on load demands
- Participate in the operation of virtual power plants
- Demand-side response incentives available

Advantages of User Side Solutions

Solution Highlights

Built-in diversified energy storage system applications, including peak shaving and valley filling, demand control, and others

Cloud-based AI intelligent control, multi-energy complementarity, comprehensively reducing customer electricity costs

With the support of eMind, it supports remote monitoring via APP

GLOBAL PRESENCE

Our Services

Truly safe and reliable products
are the best service

Contact Information

400-133-6580

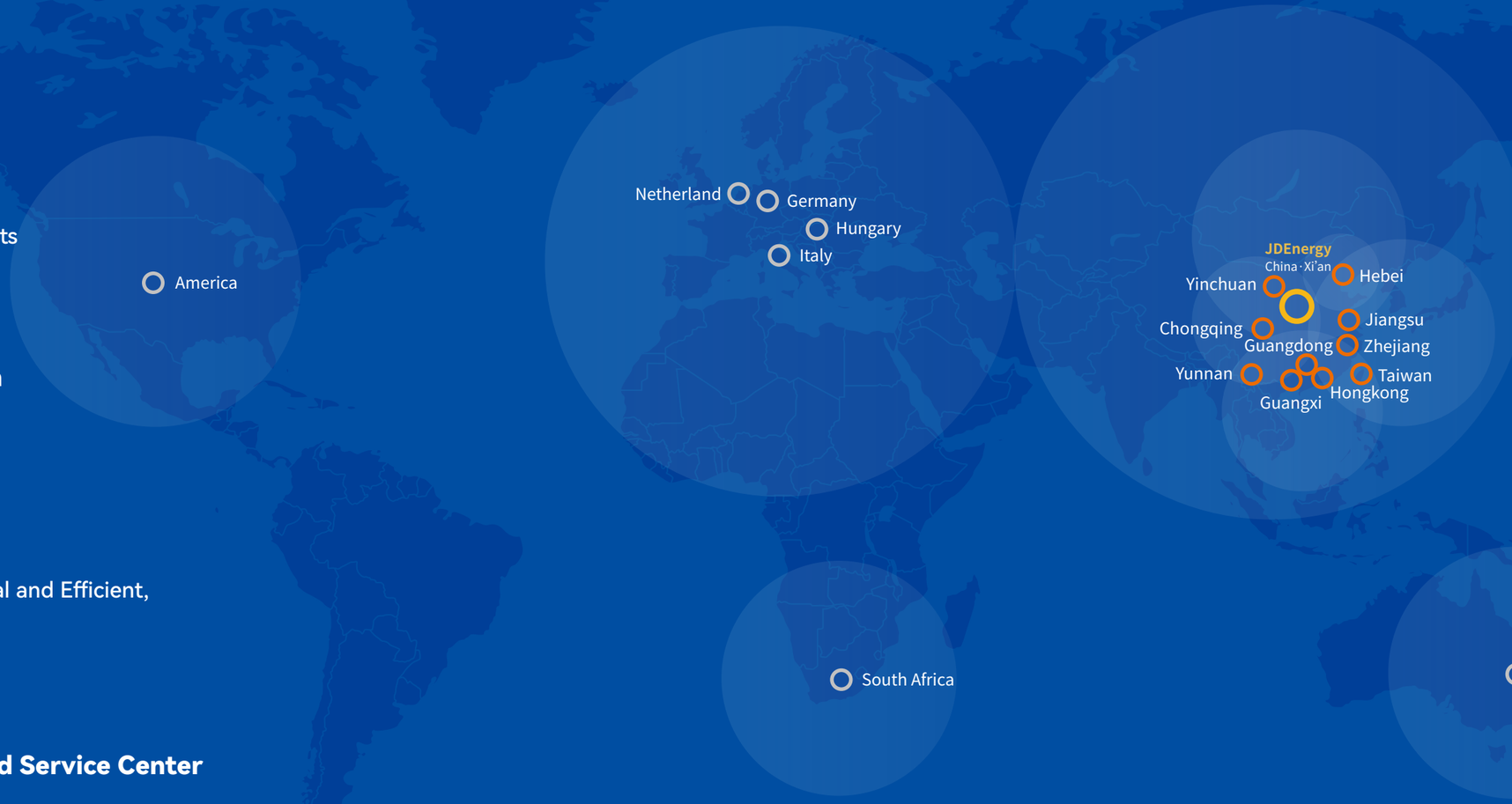
Service Idea

Customer First, Professional and Efficient,
Exceeding Expectations

Global Marketing and Service Center

China : Yinchuan Chongqing Yunnan Guangxi Guangdong Zhejiang Jiangsu Hebei Hongkong Taiwan

Overseas : America Netherland Italy Germany Hungary Australia South Africa



Service Objective

Telephone Response within 2 Hours

Cloud-based Maintenance, Real-time Online Support

7/24 On-site Service

CASE REFERENCE

Source-grid Side Energy Storage Project

eBlock 418

Yunnan CNNC Linxiang Energy Storage Project

200 MW
400 MWh

Installed Capacity of the Project

Linxiang City, Yunnan Province

This project is invested and constructed by China National Nuclear Corporation (Nanjing) Energy Development Co., Ltd. with a capacity of 200MW/400MWh. It is an important support for the green energy demonstration highland in southwest Yunnan. The power station uses JDEnergy's eBlock418 energy storage products, and the scale of a single energy storage array reaches 12MWh. After the power station is put into operation, it will focus on solving the contradiction between regional hydropower and photovoltaic fluctuations, which can improve the power grid's ability to absorb clean energy and the accuracy of power grid frequency regulation. The energy storage equipment provides solution to adapt to the complex climate in mountainous areas. The system efficiency exceeds 87%, providing a highly reliable and intelligent energy storage hub for the border multi-energy complementary system.

eBlock 372

Wuzhong Niushoushan Energy Technology Co., Ltd. Shared Energy Storage Power Station Project

200 MW
400 MWh

Installed Capacity of the Project

Wuzhong City, Ningxia Hui Autonomous Region

The project is comparable to the world's largest grid-side distributed modular energy storage power station — Huayan 200MW/400MWh First Energy Storage Power Station. After being connected to the grid and put into operation, it will effectively improve the peak-shaving and frequency-regulating capabilities of the local power system, promote the integration of source, grid, load and storage and the complementary development of multiple energy sources in the Ningxia power grid, effectively improve the peak-shaving and standby capacity of the power system, and promote the consumption of new energy. It is of great significance to accelerate the development of energy storage technology and industry and build a "clean, low-carbon, safe and efficient" modern energy industry system.

eBlock 372

Ningxia Huayan Substation Energy Storage Power Station

200 MW
400 MWh

Installed Capacity of the Project

This project, with a capacity of 200MW/400MWh, is invested and constructed by Ningxia Taiyuan New Energy Technology Co., Ltd., and adopts the energy storage product of JDEnergy's eBlock 372. It is currently the world's largest distributed modular energy storage station, providing peak shaving and frequency regulation for the Ningxia power grid. It can also operate as a shared energy storage power station to cooperate with the grid connection of surrounding new energy stations.

Zhongwei City, Ningxia Hui Autonomous Region

eBlock 372

China Energy Construction Group's Multi-Energy Complementary New Energy Power Generation Project in Qintang District, Guigang, Guangxi —North Area I Energy Storage Station Project

144 MW
288 MWh

Installed Capacity of the Project

This project features integrated energy storage cabinet eBlock-372 equipped with modular liquid-cooling performance, enjoying key advantages like guaranteed safety, economic efficiency, grid-friendly operation, and intelligent maintenance. After the project is connected to the grid, it will provide peak-shaving and frequency-regulation services to multiple regional new energy power stations, effectively smooth out power generation fluctuations, and significantly reduce the curtailment rate, which ensures the safe, efficient, and stable operation of the power system.

Guigang City, Guangxi Zhuang Autonomous Region

eBlock 372

Guangxi Chongzuo Zhongyuan Centralized Energy Storage Power Station

115 MW
230 MWh

Installed Capacity of the Project

The project adopts eBlock-372, the integrated plug-and-play smart eBlock product. This product truly achieves the "All-in-One" design concept for the first time in the industry. It innovatively integrates high-longevity battery cells, effective and balanced BMS, multifunctional PCS, active safety systems, intelligent distribution systems, and thermal management systems, offering core advantages such as safety, cost-effectiveness, efficiency, grid compatibility, and intelligent O&M.

Guigang City, Guangxi Zhuang Autonomous Region

eBlock 372

New Electro-Chemistry Energy Storage Power Station of Ningxia Yuanchu Technology Xinliang Substation

100 MW
200 MWh

Installed Capacity of the Project

The project adopts eBlock-372, the modular liquid cooling energy storage cabinet integrated product scheme of JDEnergy, with a scale of 100MW/200MWh. It consists of 38 energy storage units with capacity of 5.27MWh respectively, each including one energy storage matrix and one step-up transformer. After the project is connected to the grid, it can provide peak shaving and frequency regulation services, effectively smoothing the fluctuation of power generation, greatly reducing the rate of power curtailment. At the same time, it can effectively realize the value of shared energy storage, participating in electricity trading and assisting market services. It serves multiple new energy power stations through the grid, promoting stable output and large-scale consumption of new energy in Wuzhong City and even the entire Ningxia Hui Autonomous Region.

Wuzhong City, Ningxia Hui Autonomous Region

eBlock 372

Wuzhong Ruichu Spring Transformation New Electrochemical Energy Storage Power Station Project

100 MW
200 MWh

Installed Capacity of the Project

The project is located in Wuzhong City, Ningxia, and is connected to the Quanyan 330kV substation with a 110kV line. This project has a total of 540 sets of energy block products eBlock-372 and 20 box transformers. After being connected to the grid, it can provide peak-shaving, frequency regulation and sharing services for multiple new energy power stations in the region. It can also effectively smooth out power fluctuations and significantly reduce the power abandonment rate, ensuring the safe, efficient and stable operation of the power system. It is of great significance to accelerate the integration of power sources, grids, loads and storage in the autonomous region and the development of multi-energy complementarity.

Wuzhong City, Ningxia Hui Autonomous Region

eBlock 418

Dongying Jinhui Independent Shared Energy Storage Project

100 MW
200 MWh

Installed Capacity of the Project

The 100MW/200MWh independent energy storage project of Shandong Dongying Financial Group, which JDEnergy won the bid for, is the first large-scale application of JDEnergy's newly upgraded eBlock418 product. eBlock418 uses a new large-capacity 314Ah battery cell, which greatly improves the energy density; this station is close to the mouth of the Yellow River, and the energy block energy storage system has adopted a special solution for high salt spray, and the cabinet anti-corrosion level has been upgraded to C5 to ensure the safe and stable operation of the equipment; after the station is connected to the grid and put into operation, it will effectively play the value of shared energy storage, provide services for multiple new energy power stations, and promote the stable output and large-scale consumption of new energy in Dongying City and even the entire Shandong Province.

Dongying City, Shandong Province

Stringed PCS cabin

STRINGED PCS CABIN

Gansu Jiuquan Energy Storage Project

450 MW

Installed Capacity of the Project

Jiuquan City, Gansu Province

It's "green electricity" system of wind, solar, load and storage based on the upstream and downstream collaborative projects of polysilicon. The total planned scale of the energy storage part is 2500MW/10000MWh, which is one of the largest grid-side energy storage power stations currently planned in China. 450MW inverter-boost integrated unit signed by the company will be used for the first phase of the construction of a 750MW/2100MWh shared energy storage power station, which aims to solve the intermittent problem of renewable energy power generation through efficient energy storage technology and improve the flexibility and stability of the power grid. This project is the first large-scale "Three-Green Project" in China. The project will innovatively use "green electricity" to produce polysilicon "green materials", use "green materials" to manufacture photovoltaic module "green equipment", and use "green equipment" to produce "green electricity", thereby achieving green, closed-loop, and cluster development of the entire industry chain, and creating a "low energy consumption, low emissions, and low cost" carbon neutrality path.

STRINGED PCS CABIN

Chongqing Liangjiang Energy Storage Project

50 MW

Installed Capacity of the Project

Chongqing Municipality

The Chongqing Liangjiang Project is located on the north side of the 110kV Shuangxi Station in Yufu Industrial Development Zone, Chongqing. It is 50MW/100MWh Phase II project that was expanded based on the 100MW /200MWh Phase I project that has been connected to the grid. The total capacity of the two phases of the project is 150MW/300MWh. The project adopts stringed PCS energy storage solution to achieve refined management on each cluster and package. It has smaller granularity and higher response rate, greatly improving the flexibility, economy and safety of the power system. The completion and operation of this project will further assist the construction of the Longsheng New City low-carbon digital energy demonstration zone, provide strong support for ensuring the safe and stable operation of Chongqing's power grid, continuously optimizing and adjusting the energy structure, and accelerating the green and low-carbon transformation of energy.

eBlock 418

Jinxi New Energy User-side Energy Storage Project

60 MW
120 MWh

Installed Capacity of the Project

Tangshan City, Hebei Province

The project is mainly used in Jinxi Iron and Steel Group. It is the largest user-side distributed modular energy storage project in North China and also JDEnergy's first 100MWh user-side energy storage project. As a traditional steel company, it has huge electricity demand, relatively high power load and great peak-shaving pressure on the power grid. It urgently needs to configure energy storage to alleviate practical difficulties. The project significantly enhances the flexible dispatching efficiency of the regional power grid, helps to ensure the stable supply of electricity, ensures the continuity and stability of production, and helps high-energy-consuming industries to successfully achieve green transformation.

eBlock 745

Chiwan port Energy Storage Demonstration Project in Shenzhen

—Long-term energy storage system at the dockside of the South China Sea

15 MW
60 MWh

Installed Capacity of the Project

Shenzhen City, Guangdong Province

The Chiwan Energy Storage Demonstration Project in Shenzhen, connected to the grid in December 2023, is an energy storage demonstration project in Shenzhen developed by JDEnergy in cooperation with Zhongkai New Energy. This is the first time that JDEnergy has adopted a 4-hour long-time energy storage system on the user side in Shenzhen, and 60MW is the largest scale of user side energy storage at present. At the beginning of the project, we took the offshore location into consideration in design, and adequate anti-tidal and anti-seawater backflow measures were taken to effectively guarantee the stable operation of the system in the seaside environment.

eBlock 372

Energy Storage Power Station of Zhejiang Jinsheng Holding Group Co., Ltd.

— “a silent money-maker”

11 MW
22 MWh

Installed Capacity of the Project

The project is invested and constructed by JDEnergy in the way of project contract energy management, with a total investment of about RMB 40 million and a total installed capacity of 11MW/22MWh. The project adopts eBlock-372, with an annual discharge capacity of approximately 13.5 million kWh. According to the time-of-use electricity price policy in Zhejiang province, the total annual revenue is approximately RMB 11 million. Based on a 15-year operation estimate, the total revenue can reach RMB 165 million.

Hangzhou City, Zhejiang Province

eBlock 418

Hungary Industrial and Commercial Energy Storage Project

6 MW
12 MWh

Installed Capacity of the Project

This project is JDEnergy’s first overseas industrial and commercial modular energy storage project and was delivered to customers in October 2024. The product has been certified by TÜV Rheinland, a German certification body for product safety and quality.

Hungary

eBlock 200

Energy Storage Power Station of Zhejiang Sanhua Automotive

—Low-carbon vehicles, green travel.

3 MW
6 MWh

Installed Capacity of the Project

Hangzhou City, Zhejiang Province

The Sanhua Automotive Project is located at the Sanhua Industrial Park in Qiantang District, Hangzhou Province. It includes 30 eBlock-200 products, arranged in 4 arrays and 7 access points. After the project is completed, it is expected to have an annual charge and discharge capacity of 4 million kWh, saving approximately RMB 3 million in electricity costs for the owner. Additionally, the Grid-connected operation of the project will support the green transformation of the company by reducing reliance on traditional fossil fuels, lowering emissions of greenhouse gases. It is helpful to address climate change and environmental pollution issues.

eBlock 261

Yiwu Chunhua Micro Valley Industrial Park Energy Storage Power Station

2.3 MW
4.6 MWh

Installed Capacity of the Project

Yiwu City, Zhejiang Province

As a small but complete micro park, Chunhua Weigu Weaving Park is committed to building a modern high-quality park with textiles, clothing, accessories and related supporting industries as the leading industries. Textile manufacturing has extremely high requirements for the continuity of power supply. The energy storage power station uses the “peak shaving and valley filling” function to store electricity during the low-power consumption period and release it during the peak period, effectively smoothing the load fluctuations of the park power grid, reducing the risk of equipment downtime due to power shortages or fluctuations, and ensuring the stable operation of the production line. The commissioning of the energy storage power station has multiple strategic significances. It not only injects new impetus into the efficient operation of the park, but also demonstrates a forward-looking layout in terms of energy management, low-carbon transformation and economic benefits.

eBlock 200

Partnering with the Fortune Global 500 -Support energy transformation in high-energy-consumption industries

3.0 MW
6.0 MWh

Installed Capacity of the Project

In August 2023, a 6MWh industrial and commercial energy storage project was officially grid-connected. The project was invested in, constructed, operated, and managed by MS Energy, with JDEnergy supplying the system. In August 2023, a 6MWh industrial and commercial energy storage project, invested, constructed, operated, and managed by MS Energy, and supplied by JDEnergy, was officially Grid-connected. This energy storage power station is located at the Hangzhou factory, a Fortune Global 500 company, and it is the company's first energy storage project at its global factories. After the project is connected to the grid and put into operation, it is expected to be helpful in peak shaving and valley filling for the company, with an average annual discharge of about 3.8 million KWh, and a cumulative discharge of about 57 million KWh. The investor anticipates saving about RMB 3 million in electricity costs each year.

Hangzhou City, Zhejiang Province

eBlock 230

Huizhou Xinghua Park Energy Storage Power Station

2.3 MW
4.6 MWh

Installed Capacity of the Project

With an installed capacity of 2.3MW/4.6MWh and a charging and discharging efficiency of over 90%, the electricity utilization efficiency is maximized. Through the two-charge and two-discharge strategy, Xinghua Industrial Park can save more than one million yuan in electricity bills each year, and the investment return period is shortened to the industry-leading level. Energy storage units play an important role in the journey towards carbon neutrality. As more and more industrial parks learn to make the most of electricity, China’s manufacturing is undergoing a green transformation.

Huizhou City, Guangdong Province