DONGGUAN HEADQUARTER | WUHAN MARKETING CENTER | NANJING R&D CENTER
SHENZHEN | SOUTH AFRICA | GERMANY | UNITED STATES | HUNGARY

Stock code:(001696.SZ)

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# C&I ESS
## Brochure

www.lithiumvalley.com

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LV-MAST-T20K-A LV-MAST-T50K-A

***Making the world a green valley!***

# ABOUT
# Lithium Valley

Dongguan Lithium Valley Energy Co., Ltd., a subsidiary of Zongshen Power (001696.SZ), was founded in 2013. With the vision of "Making the world a green valley", Lithium Valley specializes in providing customized energy storage products and comprehensive one-stop energy storage solutions for residential and commercial applications. Our products have obtained internationally recognized certifications such as CB, CE, UL1973, UL9540A, BIS, ISO9001 & ISO14001, and ISO14064 & ISO14067.

With over 16 years of battery industry experience, our founder leads the company in its pursuit of excellence. Our facilities cover an area of 30,000 square meters, and we employ over 300 professionals in management, research and development, and production roles. We have established a presence in various locations, including our headquarters in Dongguan, marketing centers in Wuhan and Shenzhen, and an R&D center in Nanjing. Additionally, we have branches in Germany, the USA, Hungary, and South Africa.

After more than a decade of industry cultivation, Lithium Valley upholds the principles of high quality, high efficiency, and sustainable development in our production and manufacturing processes. We have established a scientific and stable supply chain system, working closely with top battery cell suppliers to ensure the quality and stability of our systems from the source. These systems are integrated with our self-developed BMS battery management system, EMS energy management system, and cloud platform. Through our self-developed MES system, our quality control team monitors the entire production process rigorously. Each product undergoes a series of stringent tests before leaving the factory, ensuring its reliability and stability.


**30000m²**
FACTORY AREA

**$10 M**
REGISTERED CAPITAL

**2GWh+**
DELIVERED CAPACITY

**Powered by**
ZONGSHEN POWER(001696.SZ)

**Service**
LOCAL SERVICE& INVENTORY IN EUROPE

# Zongshen Industrial Group--40 years of history, Large Manufacturing Enterprise

**1982** Founded in

**250+** billion yuan Total assets

**17,000+** Employees

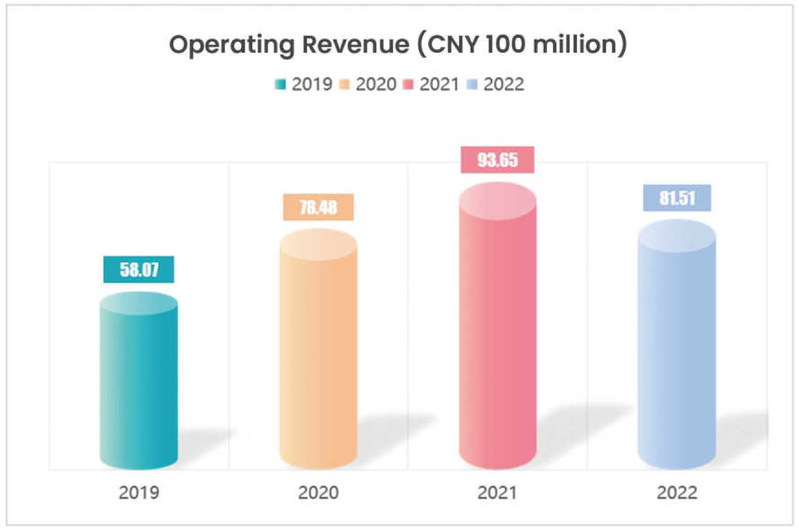
**270+** billion yuan Annual sales revenue

**382** nd 2022 China Top 500 Manufacturers

**26** th 2022 Chongqing Top 100 Enterprises

## Zongshen Power

- Motorcycle Engines
- Aviation Power
- General Power Machinery
- High-end Components
- New Energy Business
- Industrial Chain Finance




## 2 Internationalization Process

Production bases established in Vietnam and Mexico, permanent representative offices set up in Europe and North America



## 5 Years to Revenue Doubled


## 4 Listed Company Platform

**Zongshen Power** (Listed in 2003, stock code: 001696)

- **Meixin Yishen** (Filed)
- **Zongshen Aero Engine** (Planned Filing)
- **Dongguan Lithium Valley** (In Preparation)

# One-stop Energy Storage Integrated Supply Solution , Making Energy Storage Integration More Secure and Worry-free

### High-quality Suppliers

We evaluate the vast majority of inverters and batteries on the market, select suitable products for rigorous testing, and continue until they meet high market standards.

### User-friendly Design

From the perspective of installers and customers, design products that are easy to install and beautiful.

### Customized Solution

We provide advanced and guaranteed comprehensive solutions for energy storage systems, and customize solutions based on different projects and customer needs.




Lithium Valley technology

**2007**
The founder entered the lithium battery industry and serve as an executive at a leading nickel and lithium battery company.

**2013**
Shenzhen Lithium Valley Technology Co., Ltd. was established with a focus on AGV and solar battery.

**2018**
Dongguan Lithium Valley Energy Co., Ltd. was established as a group company to coordinate and manage its subsidiary factories.

**2020**
Venture into the energy storage business and also set up a new research and development center in Nanjing.

**2022**
A marketing center was established in Wuhan to expand our market presence.
The establishment of the marketing center has injected new momentum into the company.

**2023**
We expanded our production scale, improved our overall image, and established a global production and distribution strategic system in Germany, South Africa, and the US to accelerate our overseas expansion.
Zongshen Power signed an M&A agreement with us and acquired a 60% equity stake in our company.

## Company Culture

### Dedication
Maximise initiative and creativity in working towards your goals

### Innovative
Good solutions for customers through technological innovation

### Cooperation
Taking a long-term view and constantly pursuing excellence in cooperation

### Win-Win
Learn from each other, complement each other's strengths and help each other

# Manufacturing Center

We have independent R&D and production capabilities of core energy storage components such as batteries, modules, battery management systems and energy management systems, and have comprehensive service advantages of vertical integration of the industrial chain, and have the ability to design integrated solutions for energy storage system.



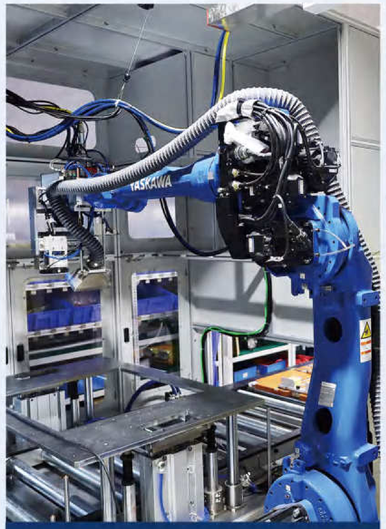
**10** Production Lines

**2** Packing Lines

**4** Assembly Lines

## Intelligent Production Line

Our factory is equipped with a fully automated PACK assembly line, which has highly flexibility and significantly reduces human intervention, helping us achieve a smooth transition of production, greatly improving product qualification rate and assembly efficiency, and further compressing the delivery timeline.



Laser spot welding machine

High-voltage aging cabinet

Laser vision positioning detection

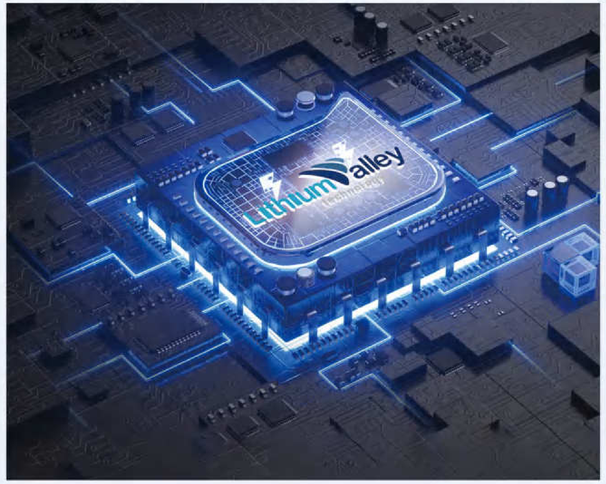
Automatic laser cleaning machine

Automatic sorting machine



# R&D & Testing

We have our own professional R & D and testing center, and our R & D investment accounts for 10% of the total cost. We have 52 members, which is 13% of the total staff (50% members have more than 5 years experience in energy storage industry) R&D general manager has 18 Year battery development experience.



## Laboratory-Testing

**Providing clients with the perfect quality beyond expectations is our unremitting pursuit.**

Comprehensive system of standards, covering R&D, production and manufacturing fields.

Multi-level: materials, cells, modules, BMS, packs

Multi-dimensional: mechanism, electrical performance, safety and reliability, etc.

Standards: GB/T, ISO, IEC, UN, ECE, etc., with complete company-level standards developed

Temperature and Humidity Test

Drop Test

Salt Spray Test

Leak Test

Electromagnetic Vibration Test

Battery Power Analyzer

BMS Test

Insulation Withstand Voltage Test

# Core Advantages



### Open and Inclusive, Co-creation and Win-win

We are committed to promoting mutual benefits through professional training, service support, and guidance, to rapidly advance collaborative achievements.

### Global Strategy, One-Click Reach

With a focus on expanding the global market, we actively establish overseas warehouses and representative offices, reaching every consumer through a stable and diverse distribution system, and responding quickly to network demands.

### Excellent Quality, Fully Controllable

We have a comprehensive quality management system that covers the entire process of research, development, production, and testing, ensuring controllable and traceable product quality.

### Driven by Innovation, Guided by Quality

We have always been dedicated to continuous investment and research in multiple industry chains, including lithium iron phosphate batteries, energy storage BMS, and integrated energy storage systems, to meet the all-around energy storage needs from home storage to grid level.




## Authoritative Certification

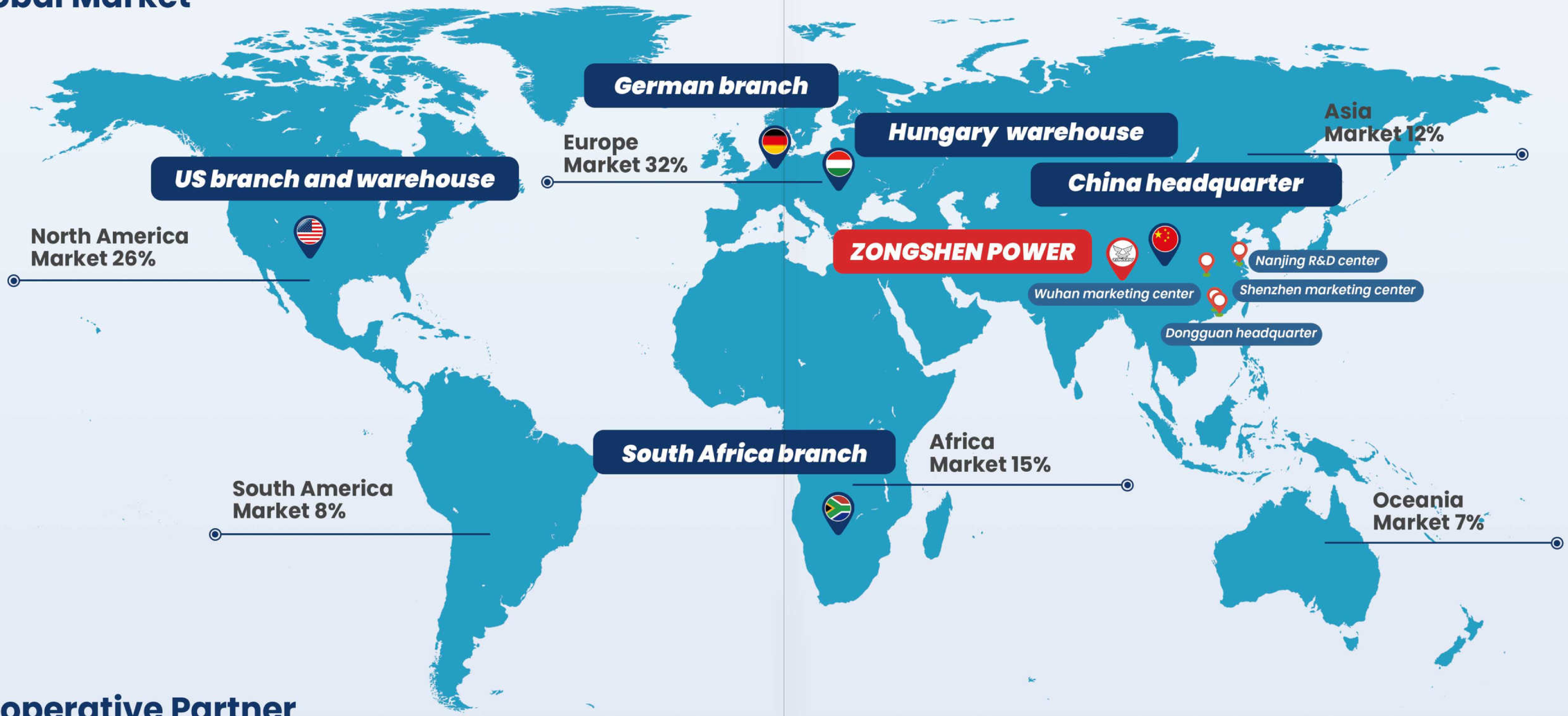
Lithium Valley products have been certified by multiple global third-party testing organization, with certification coverage spanning over 50 countries and regions worldwide.

### Quality Management

ISO 9001 | ISO 14001 | ISO 14067 | ISO 14064

### Certifications

# Global Market




## Cooperative Partner

SOFAR · invt · Solplanet · GROWATT

MEGAREVO · victron energy · Senergy · CATL

GOTION · BYD · EVE · REPT

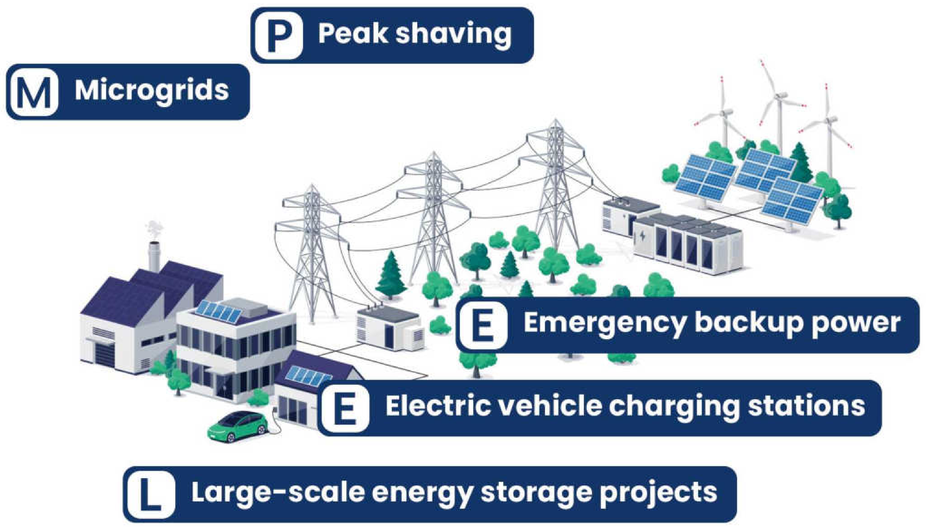
SOLINTEG · PG · SUMEC · Guernet

maxtrack · SUN SYNK · ST Engineering · Sinexcel

SDLG · Continental Battery Systems · TITANS · KK Wind Solutions


# Comprehensive C&I ESS Solutions For All Scenarios

- Keep your business ahead of the curve with our cutting-edge C & I ESS technology. From increased efficiency to reduced costs, the benefits are endless.
- Whether it's for large-scale industrial operations or small commercial settings, Lithium Valley's energy storage solutions offer a flexible and adaptable solution to meet the diverse needs of clients.






Lithium Valley
technology

Peak Shifting /Multi Purpose

Frequency Integration

Renewable Energy Regulation

## Features:

①Dynamic capacity increase of transformer in station area;

②The peak valley arbitrage; ③Emergency power supply guarantee;

④Three-phase unbalance treatment; ⑤Reactive power compensation.

| Project | Diesel Generator | Flywheel Energy Storage System | Intelligent flexible power supply protection source |
|---|---|---|---|
| Function | Power supply guarantee | Power supply guarantee | Fully functional, wide application |
| Types | Serious environmental and noise pollution | Efficient Clean Energy | Efficient Clean Energy |
| On/off the grid switch | 5~30s switch | 10ms switch | Parallel scheme: 20ms switch<br>Series UPS scheme: 0ms switch |
| Operational and maintenance cost | High | Medium | Low |
| Service life | 10~20 years | 5~10 years | 10~20 years |
| Power advantage | / | / | Zero sensing, zero emission, low power consumption |

# Small-scale Commercial & Industrial ESS

The design of Lithium Valley outdoor integrated cabinet energy storage system has independent self-power supply system, temperature control system, fire detection system, fire protection system, emergency system and other automatic control and security systems to meet various outdoor application scenarios. We can provide users with full-scenario energy storage lithium battery systems, and provide customized lithium battery solutions for high-end users.

**Easy installation:**
Simple structure, small footprint, flexible layout, easy installation operation and maintenance;

**Safe and reliable:**
Built-in fire control, temperature control, system warning function for multiple security;

**Intelligent control system:**
Can be connected to the local monitoring system for system control; In the event of an unexpected situation, it can be suppressed at the first time;

**Convenient operation:**
All equipment is integrated in the cabinet, only external wiring harnesses are connected on site, no secondary assembly is required; Transportation with battery modules is supported.

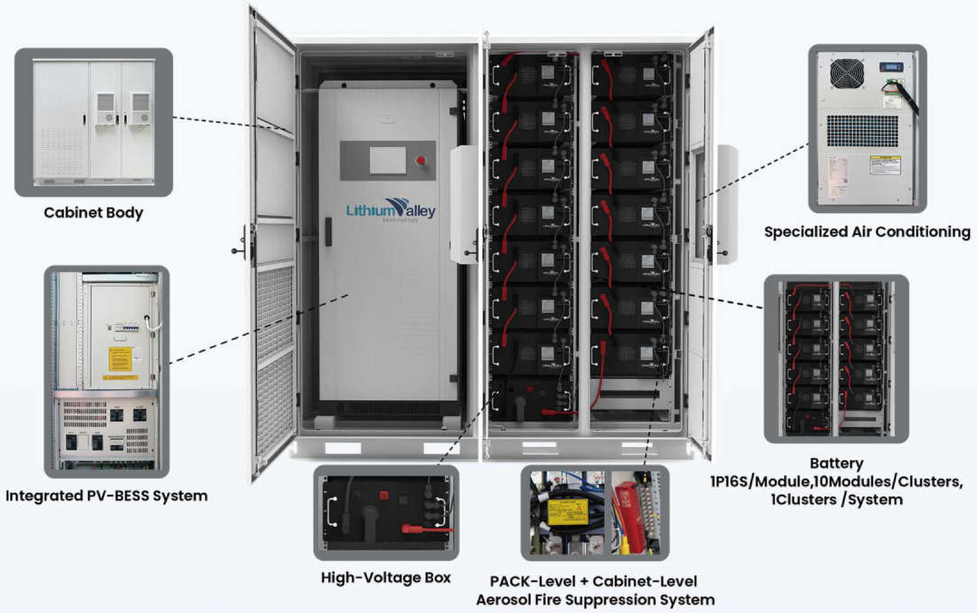


Lithium Valley technology

| Model | 30kW/60kWh | 50kW/100kWh | 100kW/200kWh |
|---|---|---|---|
| **Installation** | | | |
| Cabinets(W*D*H)(mm) | 2400*1100*2450 | 2400*1100*2450 | 2700*1100*2550 |
| Air Conditioning Capacity | 1kW | 1kW*2 | 3kW |
| **Battery Part** | | | |
| Battery Cell(Ah) | 102 | 100 | 280 |
| PACK | 1P16S | 2P16S | 1P16S |
| PACK Capacity(kWh) | 5.222 | 10.24 | 14.336 |
| PACK Size(W*D*H)(mm) | 468*550*160 | 468*650*230 | 495*700*230 |
| **PCS** | | | |
| Photostamper Size(W*D*H)(mm) | 800*800*1900 | 800*800*1900 | 1200*800*2050 |
| **Single Battery** | | | |
| Number of Packs Per Cluster | 12 | 10 | 14 |
| Single-cluster Nominal Voltage (LFP3.2V) | 614.4 | 512 | 716.8 |
| Single-cluster Voltage Range (Cell Min2.8V~Max3.65V) | 537.6~700.8 | 448~584 | 627.2~817.6 |
| **BMS** | | | |
| The Number of Battery Clusters | 1 | 1 | 1 |
| PACK | 1P192S*1 | 2P160S*1 | 1P224S*1 |
| Number of High Voltage BMS | 2 | 2 | 2 |
| Battery Capacity(kWh) | 62.669 | 102.4 | 200.704 |
| Number of Battery Racks (7 layers/rack) | 2 | 2 | 3 |
| **PV** | | | |
| PV Capacity for Connection(kWp) | 60/120 | 60/120 | 120/180/240 |
| Actual Access Capacity(kWp) | 57.6 | 115.2 | 230.4 |
| Number of PV Modules(600Wp) | 96 | 192 | 384 |
| Combiner Box Model | 6 in 1 out | 12 in 1 out | 24 in 1 out |
| Number of PV Combiner Boxes | 1 | 1 | 1 |

# Outdoor Integrated Energy Storage Cabinet

**100kW/200kWh Exploded View of Outdoor Cabinet**




**Ultimate reliability and servicability:**
The system achieves an incredible level of reliability through its fully modular architecture, which enables multiple levels of redundancy;

**Unified monitoring and data platform:**
It offers unparalleled real-time data in your pocket and on your laptop, enabling you to understand site operations anytime, anywhere;

**Obsessively engineered for safety:**
Eliminate diesel handling, spills and devastating diesel fires. Lack of moving parts makes the system orders of magnitude safer by design;

**Support & Service:**
Remotely monitored by Lithium Valley for any issues, with a dedicated service team to support you on site.

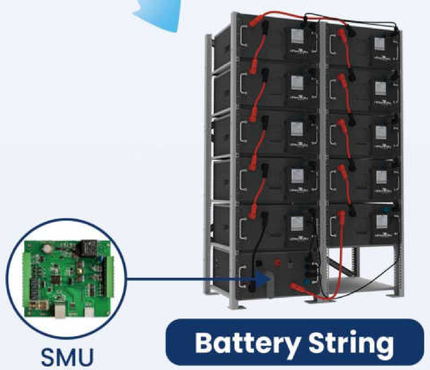


**EVE Cell**

- Prismatic LFP Cell
- 173*207*72 (mm)
- 3.2V/280Ah,4.8kg


**Module**

- **16**(1P16S) Battery (51.2V/280Ah)
- Active Balance BMU with Voltage and Temperature Data Collected
- 14.336 kWh, 120kg




**Battery String**

- **240** (1P240S) ) Battery String (768V*280Ah)
- HVU Equipped
- String BMS for BMU Management
- 215kWh, 2m*1.4m*0.8m

# Medium-sized Commercial & Industrial ESS

Integrated LFP battery and intelligent fire control temperature regulation

Convenient transportation with 40-foot container integration

High reliability of the heat dissipation design system

Low loss and high safety with temperature control design

Three-level battery data management with cell data monitoring

Standard communication interface for easy system management and scheduling

Strong environmental adaptability with IP65 protection level

Ability to withstand high and low voltage variations

**Friendly and flexible:**
- Standardized design, easy for capacity expansion, easy for maintenance;
- Independent air flow design for high reliability.

**Safe and reliable:**
- Support battery management system and comprehensive thermal management;
- Realize the fault classification protection algorithm.

**Intelligent and efficient:**
- Support real-time online monitoring of system status;
- Large capacity, long life, high discharge rate.

**Abundant configuration:**
- All kinds of power configuration for different projects;
- Integrated monitoring system.



Lithium Valley technology

| Model | 250kW/500kWh | 500kW/1MWh | 1MW/2MWh |
|---|---|---|---|
| **Installation** | | | |
| Container | 20ft | 20ft | 40ft |
| Air Conditioning Capacity | 7.5kW | 7.5kW*2 | 15kW*2 |
| **Battery Part** | | | |
| Battery Cell(Ah) | 280 | 280 | 280 |
| PACK | 1P16S | 1P16S | 1P16S |
| PACK Capacity(kWh) | 14.336 | 14.336 | 14.336 |
| PACK Size(W*D*H)(mm) | 495*700*230 | 495*700*230 | 495*700*230 |
| **PCS** | | | |
| Photostamper Size (W*D*H)(mm) | 600*720*2050 +1200*800*2050 | ( 600*720*2050)*2 +1600*1050*2050 | (600*720*2050)*3 +1600*1050*2050 |
| **Single Battery** | | | |
| Number of Packs Per Cluster | 12 | 14 | 14 |
| Single-cluster Nominal Voltage (LFP3.2V) | 614.4 | 716.8 | 716.8 |
| Single-cluster Voltage Range (2.8V~3.65V) | 537.6~700.8 | 627.2~817.6 | 627.2~817.6 |
| **High Voltage BMS** | | | |
| Number of Battery Clusters | 3 | 5 | 10 |
| PACK | 1P192S*3 | 1P224S*5 | 1P224S*5*2 |
| Number of High Voltage BMS | 3 | 5 | 10 |
| Battery Capacity(kWh) | 516.10 | 1003.52 | 2007.04 |
| Number of Battery Racks (7 layers/rack) | 6 | 11 | 22 |
| **PV** | | | |
| PV Capacity for Connection(kWp) | 300/360 | 600/660/720 | 1200/1320/1440 |
| Actual Access Capacity(kWp) | 345.6 | 691.2 | 1238.4 |
| Number of PV Modules(600Wp） | 576 | 1152 | 2304 |
| Number of Assembly Components/Branches of the Bus Box | 16 | 16 | 16 |
| Combiner Box Model | 18 in 1 out | 24 in 1 out | 24 in 1 out |
| Number of PV Combiner Boxes | 2 | 3 | 6 |

# Energy Storage System - Cloud Platform

### Real-time monitoring and second-level response

High-speed data communication, second-level refresh and real-time monitoring of battery data, and visual graphics to display the operating status.

### One-click inspection, intelligent operation and maintenance

The platform supports one-click inspection, real-time analysis and diagnosis, smart push of online operation and maintenance strategies and offline maintenance work orders, effectively improving the efficiency of operation and maintenance.

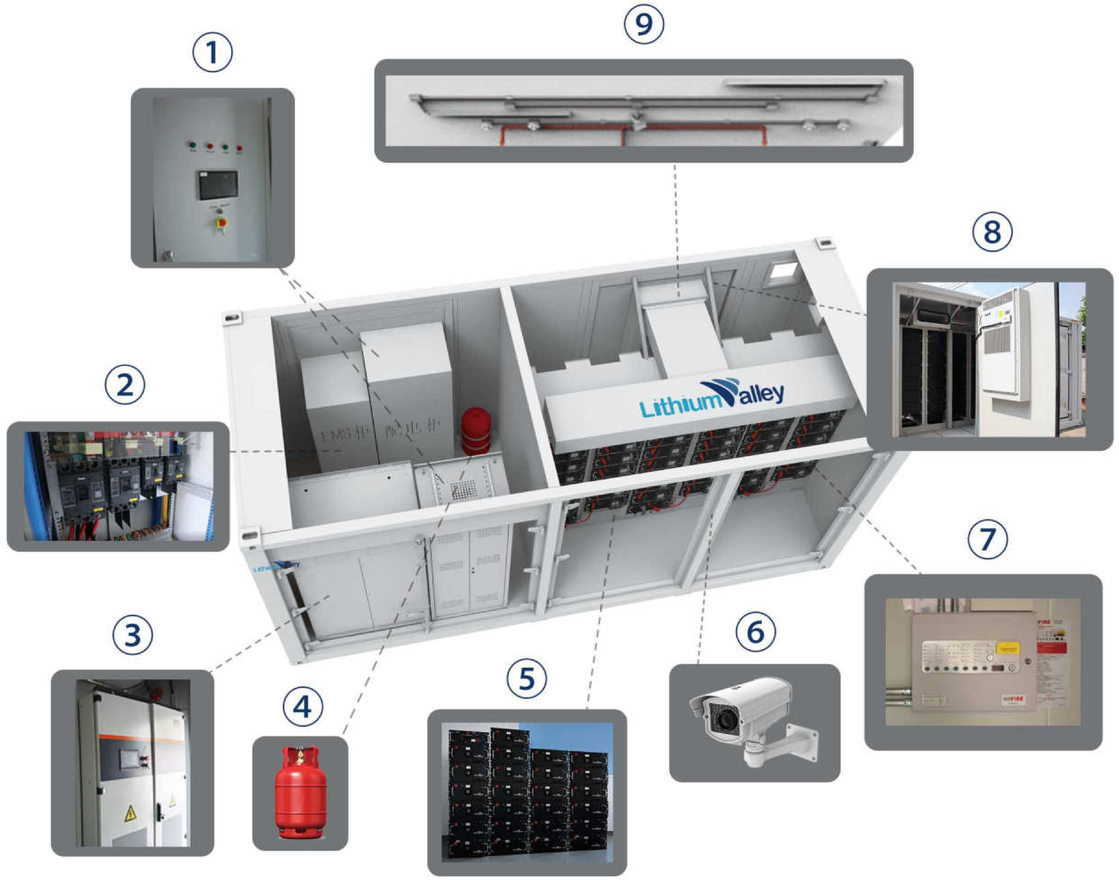
### Data aggregation centralized display

All functions are presented as menus, which can be quickly returned or switched on any interface. The operation is simple and convenient, greatly reducing the workload of operation and maintenance.

### Integrated design flexible expansion

Following the custom-designed structure, it is highly integrated and advanced, safe, efficient, and highly reliable. It has good structural scalability and is easy to expand and develop.






## Container Energy Storage System

① High Performance and Fast Response Cooling system

② Safety Escape Indicator

③ High Safety and Long Life Battery and Protection System

④ High-performance Fire Extinguisher

⑤ Stable and Efficient Power Converter System

⑥ Highly Sensitive and Fast Response Fire Control system

⑦ 24/7 Monitoring ⑧ Low-energy Ventilator

# Mobile Energy Storage System

**LITHIUM-ION TECHNOLOGY:**

Overload capability up to 200% ; Virtually no maintenance ; Perfect match for short cycles performance ; Large usable energy range compared to other technologies ; Low total cost of ownership.

**THE ERA OF CONNECTIVITY:**

Smart start and stop ; EMS with Battery management communication (BMS) ; Remote monitoring system and Bluetooth mobile application.

**A MODULAR AND PORTABLE SOLUTION:**

Galvanized skid ; Integrated lifting structure with single elevation point ; Compact size and light weight for easy transport..

**PLUG AND PLAY:**

Easy connection for solar panels ; Earth pin ; Emergency stop ; Circuit Breakers and Earth leakage Relay ; Plug and play sockets with any genset and load ; Passthrough limitation 100A.



Lithium Valley technology

| Module | LV-MAST-T20K-A | LV-MAST-T50K-A |
|---|---|---|
| |  |  |
| Battery Voltage Range (V) | 160~233.6 | 400~584 |
| Max. Charging/Discharging Current (A) | 100 | |
| Battery Configuration Capacity (kWh) | 20/40/60/80/100 | |
| Phases | Three Phases | |
| Battery Type | LiFePO4 | |
| Cycle Life | 6000@80%DOD, 25℃/0.5℃ | |
| Frequency(Optional) (Hz) | 50/60 | |
| Max PV Input (kW) | 30 | 60 |
| Mppt Input Voltage (VDC) | 200~950 | 200~850 |
| Max.Input Current | 30A*2 | 30A*4 |
| Max.Short Circuit Current | 40A*2 | 40A*4 |
| **Structure** | | |
| Dimension(W*H*D) (mm) | 900*850*1235 | 900*850*1845 |
| IP Rating | IP65 | |
| Max. PV Conversion Efficiency | 98.4% | |
| **Ac Output(on Grid)** | | |
| Rated Output Power (kW) | 20 | 55 |
| Rated output Current (A) | 33.5 | 83 |
| Grid Voltage (V) | 3L/N/PE,220/38,230/400,240/415 | |
| Power Factor Range | -0.8~+0.8 | |
| **Ac Output(EPS)** | | |
| Rated Output Power (kW) | 20 | 50 |
| Rated Output Current (A) | 33.5 | 83 |
| EPS Voltage (V) | 3L/N/PE,220/38,230/400,240/415 | |

# Your clean and quiet source of energy

The Mobile Energy Storage System takes modular energy storage to a new level. Developed with sustainability in mind, it helps operators dramatically reduce their fuel consumption and CO2 emissions, while delivering optimal performance with zero noise and virtually no maintenance. Leveraging the benefits of high-density lithium-ion batteries, the units are compact and light compared to traditional alternatives, yet capable of providing over 12 hours of power with a single charge.

They are ideally suited for noise-sensitive environments, such as event or metropolitan construction sites, telecoms, or rental applications, or to resolve low load problems.




**FAST RECHARGE**
< 3 HOURS

**COMPACT**
70% LIGHTER IN WEIGHT

**LIFESPAN**
Li-ION 6,000 CYCLES

**HYBRID**
AND SUITABLE TO *RENEWABLES*

**PARALLEL CAPABILITY**
UP TO 10 UNITS

**INCREASE**
50% PRODUCTIVITY



## The solution to meet your needs

The Mobile Energy Storage System perfectly fits with applications that require a continuous and demanding flow of electrical power energy. It is ideal to properly size cranes and other electric motors, for events celebrated in noise-sensitive locations and for other stationary applications such as hospitals or recharging points for electrical cars. Also, it can be synchronized with other Energy Storage Systems, which allows the machine to become the storage of all the energy sources connected to a microgrid.


POWER PLANT


TELECOM


CONSTRUCTION


EVENTS


RECHARGING POINTS


RENEWABLES

# ISLAND Mode

The island mode enables our Energy Storage Systems to be used as a standalone power solution. It is an ideal way to meet the needs of zero noise environments like night operations, remote telecom applications, or to resolve low load challenges.

### QUIET TECHNOLOGY

Mobile Energy Storage System models are silent in operation, delivering zero noise emissions, thereby contributing to a safer working environment. They are a perfect choice for noise-sensitive applications, such as events and metropolitan construction sites. Allowing to increase the productivity of the core business up to 50%.

### COMPACT DESIGN

Lithium-ion allows us to reach high power machines in the most compact version, making them easier to transport and up to 70% lighter in weight than other battery technologies. Modularity is a big benefit while talking about transportability.

### FAST CHARGING

In Island mode, the machines are ready to perform in a very easy way. Connect them directly to the loads and start working. But as they need to be ready at any moment, fast charging is a must, the system can be fully recharged in less than 3 hours.

### CLEAN TECHNOLOGY

When used in island mode, the CO2 savings can reach up to 100% if the units are powered by renewable energy sources. You can scale the solution to reach the needed clean energy demand with the smart paralleling system.



# HYBRID Mode

In hybrid mode, the Mobile Energy Storage Systems can be used together with any diesel generator to enable smart load management. With the benefit of zero noise emissions, the hybrid solution is ideal for use in a range of demanding applications, for example, any construction site where low loads or peaks can become a problem for the generator.

### HYBRID SYSTEM

The units are easy to connect to the generator thanks to a wide offer of socket options. Also, paralleling unit with our smart management controllers will allow you to increase the power offer according to the demand.

### VERSATILITY

The Mobile Energy Storage Systems enables versatile smart load management. The units help the generator reach the peaks of power, optimizing its performance, extending its lifespan up to 15%, and decreasing general maintenance and overhaul in overhaul by 50%. This means that a 40% smaller generator can be used. The Mobile Energy Storage System is also ideal for managing low load requirements.

### ENVIRONMENTALLY FRIENDLY

In hybrid mode, users can reduce daily fuel consumption by up to 80%, saving more than 200 tons of CO2 during its operating life.

# Overview of Energy Storage System Applications

## Grid-side/Generation-side/User-side

**Grid-side:** Energy storage systems balance the load on the power grid, improving its stability and reliability. They store energy during low demand periods to meet high demand during peak periods. By cutting peaks and filling valleys,they can alleviate the contradiction between supply and demand, reduce operating costs, monitor load fluctuations, and quickly respond to grid dispatches to improve frequency stability.

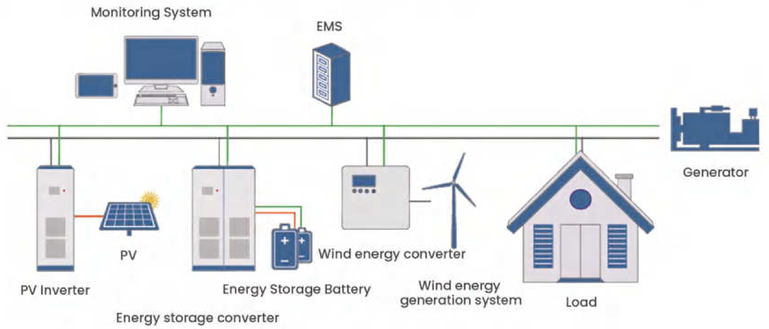
**Generation-side:**Energy storage systems improve the efficiency of renewable energy utilization and resolve issues of electricity fluctuation and instability. These systems store excess energy and release it when needed to ensure a steady supply of energy. They also improve the stability of new energy output and transient power impacts on the grid, there by enhancing the quality of electric power.

**User-side:** Energy storage systems improve energy utilization efficiency and save energy consumption. For instance, solar power panels store energy during the day for use at night or during cloudy and rainy days to reduce costs. They also smooth out power delivery, increase capacity utilization, reduce transformer requirements and basic electricity fees, and generate economic benefits based on differences in peak and off-peak electricity prices.

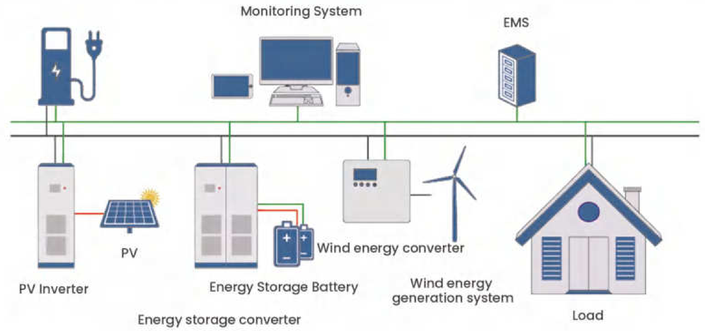


## Off-grid/Microgrid Applications

**Off-grid:** Off-grid system is an independent energy system that does not rely on traditional power grids. Energy storage systems typically work with renewable energy devices (such as solar panels and wind turbines) to provide safe, clean, and reliable electricity to remote or geographically challenging areas while effectively reducing power supply costs.




**Microgrid Applications:** Microgrid system is a distributed energy system connected to the power grid and operates in collaboration with it in a small area. It can improve autonomous power supply capability, reduce dependence on the grid, and balance loads through energy storage systems. As one of the core equipment of microgrid systems, energy storage systems ensure a smooth and reliable energy supply. Additionally, they optimize scheduling and improve the safety and stability of the grid through intelligent control.



# Project Case


## Brandenburg, Germany Outdoor Integrated ESS

25kW/50kWh

2022.06

On-Grid | Self-Sufficient

Outdoor Cabinet

## Hunan, China Microgrids

250kW/520kWh+150kwp PV 2021.05

Self-Sufficient | Backup Power Outdoor Container




## Liverpool, United Kingdom ESS

500kW/1MWh

2020.10

Peak Shaving&Valley Filling |

Backup Power

Outdoor Container



## Johannesburg, South Africa ESS

600kW/1224kWh

2021.05

Self-Sufficient | Backup Power

Outdoor Container


## Burriam, Thailand Outdoor Integrated ESS

50kW/100kWh

2021.03

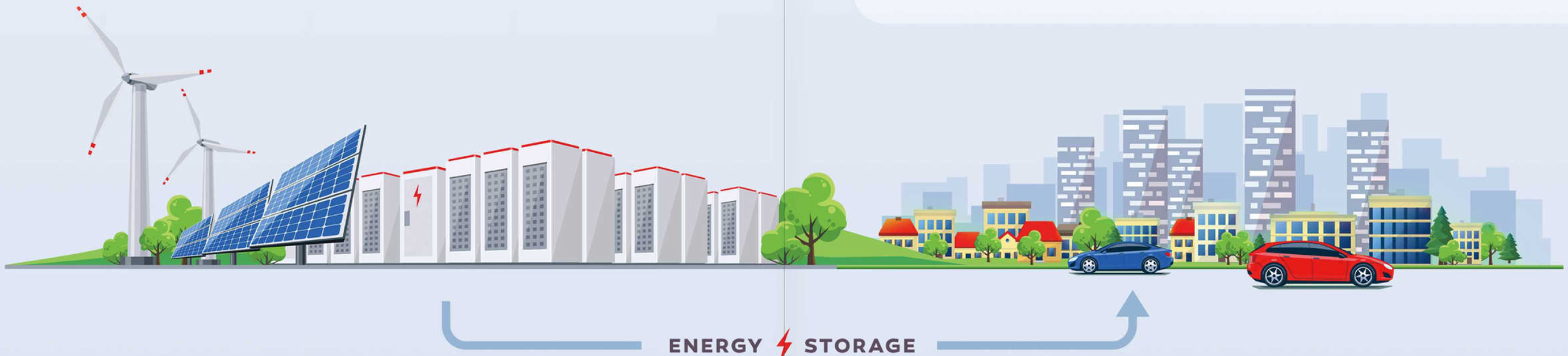
On-Grid | Backup Power

Outdoor Cabinet

# Energy IoT

At present, building a new type of power system with new energy as the main body is the main path to achieve the "dual carbon" goal. Energy storage, as a flexible regulation resource, is one of the key technologies to support the matching of power and load in the new type of power system. It can absorb and regulate a high proportion of renewable energy, achieve the spatiotemporal transfer of power supply and demand, and promote the interconnection of power energy.
Lithium Valley will seize the opportunity of explosive energy storage growth, adhere to customer orientation and market driven, provide customers with stable, reliable, compatible, and full lifecycle energy storage solutions and products, assist customers in building a green and sustainable energy ecosystem, help achieve the "dual carbon" strategy, and achieve energy freedom.

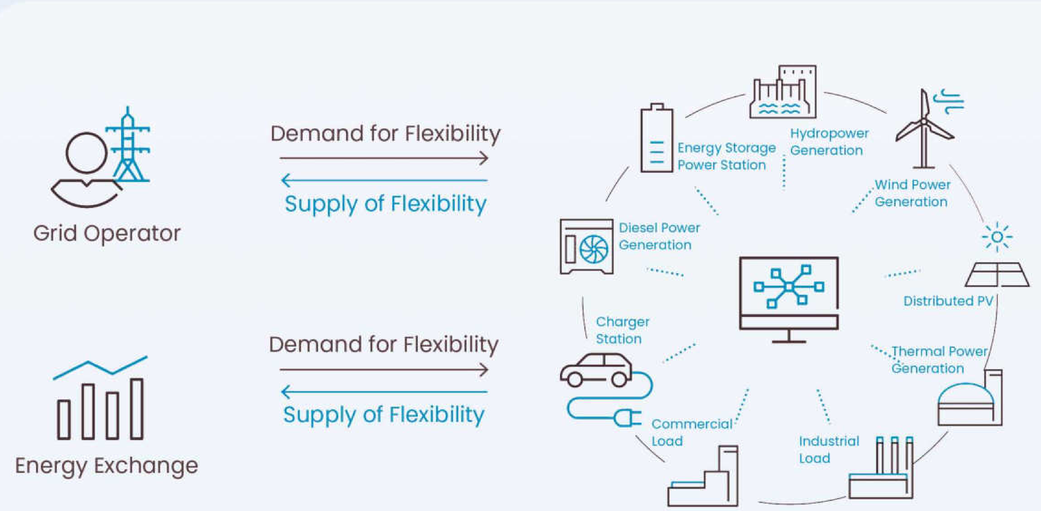
| Energy IoT | Industrial IoT | Intelligent building | Intelligent business |
|---|---|---|---|
| Real time monitoring, predictive analysis Optimize scheduling and maintenance alarms Operational strategy | Intelligent distribution and energy center Production scheduling, operation and maintenance management environmental monitoring | Green energy and distribution monitoring Load control and equipment maintenance Optimize operations | Basic energy and energy efficiency management Operation management and security system Marketing assistance |




# Virtual Power Plant

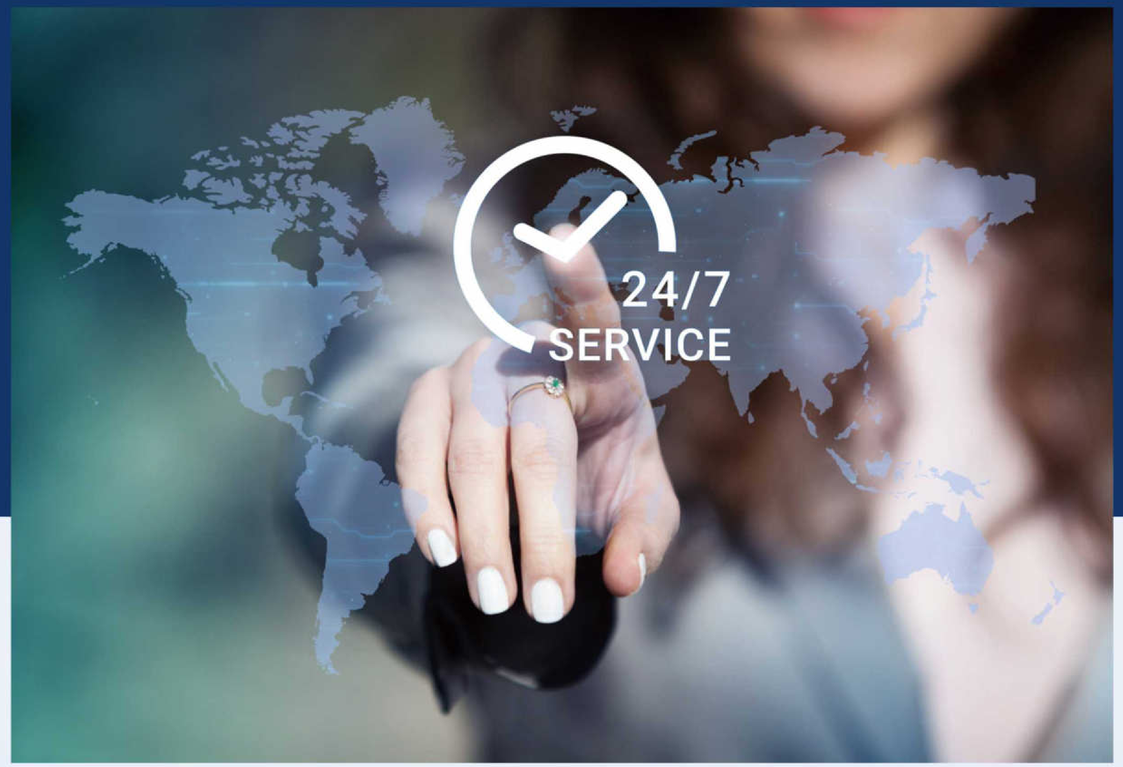
**In the field of energy storage, VPP can effectively integrate and optimize various distributed energy storage systems, improving the stability and flexibility of the power grid:**

- Demand-side management
- Frequency regulation and voltage support
- Energy trading and market participation
- Integration of renewable energy
- Emergency backup and power supply guarantee



# Global Service System

Trust us to maximize the potential of your energy storage system with professionalism, expertise, and a commitment to excellence. From consultation to upgrades, we've got you covered




## Pre-sales service

**Free technical consultations:**

1. Initial product overview
2. Technical specifications review
3. Customized design consultation
4. Site assessment

**Diverse solutions:**

Photovoltaic application solutions, including residential and commercial energy storage projects; Design comprehensive solutions; Determine technical solutions;Sign technical agreements.



## In-sales service

**On-site tracking services throughout the entire process:**

Quotation and Contracting: we provide our customers with a detailed quotation outlining the cost of the proposed solution, including all components, delivery, installation, and post-sale services. Once the customer accepts the quotation, we provide a comprehensive contract that outlines all terms and conditions.

**Delivery and Installation:**

We take care of the entire delivery and installation process, ensuring that the batteries are installed safely and correctly. In some countries, our team of experienced professionals installs the batteries, performs necessary tests, and trains the customer on how to operate and maintain the battery system.

**We support on-site inspections and result verification by customers and provide professional suggestions for optimizing solutions.**

## After-sales service

**After-sales consulting and training services:**

Professional technical support, maintenance, and repair services for our products;
Remote monitoring services to ensure that the system is operating efficiently and to identify potential issues before they become major problems;
Comprehensive warranties (5-10 years)