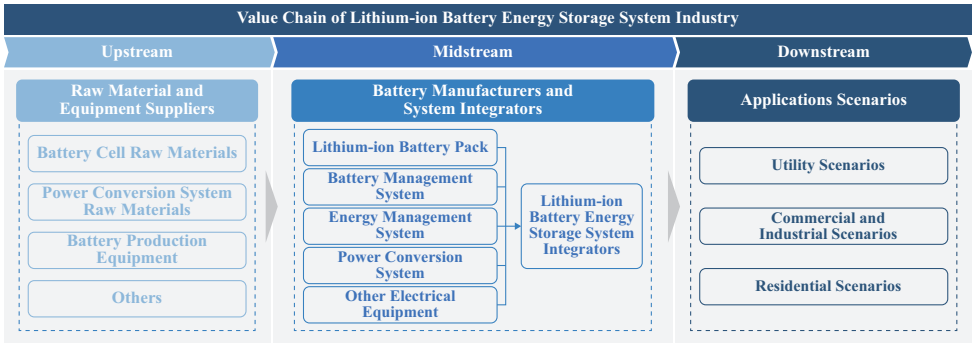
*The information and statistics set out in this section have been extracted, in part, from various official government sources and a market research report prepared by Frost & Sullivan (the "**F&S Report**") and commissioned by us. We believe that these sources are appropriate sources for such information and statistics and reasonable care has been exercised by us in selecting and identifying the named information sources, compiling, extracting and reproducing the information, and ensuring no material omission of the information. We have no reason to believe that such information and statistics are false or misleading or that any fact has been omitted that would render such information and statistics false or misleading in any material respect. Neither our Company nor any of the Relevant Persons (which, for the purpose of this paragraph, excludes Frost & Sullivan) has independently verified the information and statistics from official government sources, and no representation is given as to its accuracy.*

GLOBAL AND CHINESE MAINLAND LITHIUM-ION BATTERY ENERGY STORAGE SYSTEM INDUSTRY

Definition and Overview of Global and Chinese Mainland Lithium-ion Battery Energy Storage System Industry

A lithium-ion battery energy storage system is an electrochemical energy storage device centered on lithium-ion batteries, enabling bidirectional conversion between electrical energy and chemical energy to achieve the storage and release of electricity, and is used to regulate grid load, balance supply and demand, and improve energy utilization efficiency. Its core components consist of lithium-ion battery pack, a Battery Management System (BMS), an Energy Management System (EMS), a Power Conversion System (PCS), as well as thermal management and safety protection systems. By downstream application scenarios, the lithium-ion battery energy storage system can be categorized into utility lithium-ion battery energy storage system, commercial and industrial lithium-ion battery energy storage system and residential lithium-ion battery energy storage system.

The value chain of lithium-ion battery energy storage systems industry can be divided into upstream raw materials and equipment suppliers, midstream battery manufacturers and system integrators, and downstream application scenarios. The upstream mainly includes battery cell raw materials, PCS raw materials, and battery production equipment. The midstream primarily consists of lithium-ion battery packs, BMS, EMS, PCS, and lithium-ion battery energy storage system integrators. The downstream mainly cover different application scenarios, including utility scenarios, commercial and industrial scenarios, and residential scenarios.

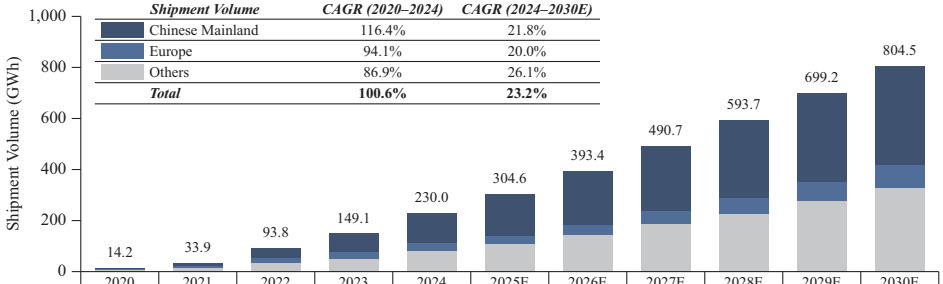


Source: Frost & Sullivan Analysis

Market Size of Global and Chinese Mainland Lithium-ion Battery Energy Storage System Industry

With the growing downstream and technical advancements, the lithium-ion battery energy storage system industry has experienced significant growth. In 2024, the market size of lithium-ion battery energy storage system industry in terms of shipment volume reached 230.0GWh globally and 118.5GWh in Chinese Mainland, growing at a CAGR of 100.6% and 116.4% from 2020 to 2024, respectively. Driven by continuous transformation of the energy structure, the market size of lithium-ion battery energy storage system industry in terms of shipment volume reached 804.5GWh globally and 386.7GWh in Chinese Mainland by 2030, represent a CAGR of 23.2% and 21.8% from 2024 to 2030, respectively.

Market Size of Lithium-ion Battery Energy Storage System Industry (Global), 2020–2030E

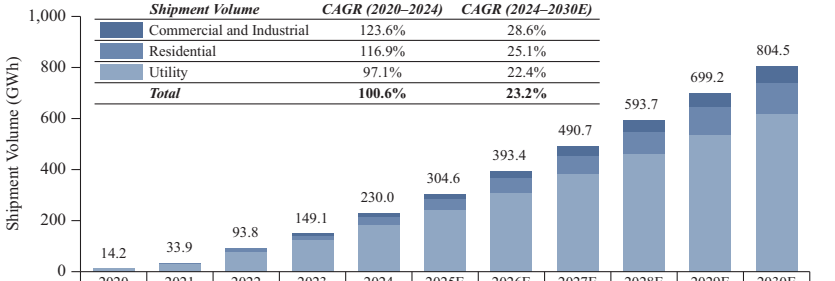


	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E
Total	14.2	33.9	93.8	149.1	230.0	304.6	393.4	490.7	593.7	699.2	804.5
Chinese Mainland	5.4	14.5	41.9	73.2	118.5	166.7	211.1	255.8	305.2	348.7	386.7
Europe	2.1	5.4	18.1	25.0	29.8	31.3	39.1	49.0	61.3	74.8	88.9
Others	6.7	14.0	33.8	50.9	81.7	106.6	143.2	185.9	227.2	275.7	328.9

Source: EESA; CNESA; Frost & Sullivan Analysis

In terms of application scenarios, the lithium-ion battery energy storage systems primarily include commercial and industrial lithium-ion battery energy storage systems, residential lithium-ion battery energy storage systems, and utility lithium-ion battery energy storage systems. From 2020 to 2024, the market size of commercial and industrial lithium-ion battery energy storage systems, residential lithium-ion battery energy storage systems, and utility lithium-ion battery energy storage systems in terms of shipment volume grew at CAGR of 123.6%, 116.9%, and 97.1%, respectively. Looking forward, the market size of commercial and industrial lithium-ion battery energy storage systems, residential lithium-ion battery energy storage systems, and utility lithium-ion battery energy storage systems in terms of shipment volume are expected to grow at CAGR of 28.6%, 25.1%, and 22.4% from 2024 to 2030, respectively.

Market Size of Lithium-ion Battery Energy Storage System Industry (Global), 2020–2030E



	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E
Total	14.2	33.9	93.8	149.1	230.0	304.6	393.4	490.7	593.7	699.2	804.5
Commercial and Industrial	0.6	1.4	3.0	9.2	15.0	21.3	29.1	37.8	47.2	57.0	68.0
Residential	1.4	3.8	12.9	17.5	31.0	42.0	55.5	70.9	87.9	105.9	118.7
Utility	12.2	28.7	77.9	122.4	184.0	241.3	308.8	382.0	458.6	536.3	617.8

Source: EESA; CNESA; Frost & Sullivan Analysis

Market Drivers of Global and Chinese Mainland Lithium-ion Battery Energy Storage System Industry

Deep transformation of the energy structure drives storage to become the core of power system stability. The global energy system is shifting toward renewables, and the volatility, intermittency, and regional differences of wind and solar power significantly increase the dependence of power systems on flexible regulation and storage capacity. Energy storage systems have evolved from auxiliary facilities into critical infrastructure ensuring grid security and supply-demand balance, with expanding applications in peak shaving, frequency regulation, and power quality improvement, becoming a prerequisite for large-scale integration of renewables. As renewable penetration continues to rise worldwide, the role of storage in supporting system stability and economic efficiency becomes increasingly prominent, forming a long-term growth driver for the industry.

Technological iteration and system integration optimization drive continuous improvement in storage economics. In recent years, improvements in cell energy density, cycle life, and safety, combined with advancements in liquid cooling, thermal management, power electronics, and EMS optimization, have significantly enhanced overall system performance. Modularization, standardization, and automated manufacturing processes further reduce production and deployment costs, driving down unit costs of storage. At the same time, the introduction of intelligent control algorithms and digital twin technology enables refined upgrades in operational strategy optimization and lifecycle management. Technological iteration not only improves economic viability but also lays the foundation for new business models, propelling the industry from demonstration applications to large-scale deployment.

Rising demand for energy autonomy on the user side accelerates industry growth. Under the combined effects of electricity price fluctuations, carbon neutrality pressures, and energy security requirements, enterprises and industrial/commercial users are increasingly seeking energy independence and cost optimization. Energy storage systems can achieve controllable energy costs and flexible scheduling through peak-valley price management, backup power, and load reduction, becoming an integral part of user-side energy management systems. The commercialization of user-side storage is gradually maturing, with customers no longer focusing solely on equipment investment but viewing storage as a long-term revenue-generating asset. With the spread of energy management services and third-party operation and maintenance models, storage companies are shifting from hardware suppliers to integrated energy solution providers, building a more stable customer base and sustainable revenue streams.

Future Opportunities of Global and Chinese Mainland Lithium-ion Battery Energy Storage System Industry

Energy storage scenarios evolving from single peak-shaving to multidimensional collaborative integration. In the future, storage will no longer be limited to single functions but will form full-chain applications across both utility side and user-side. Energy storage systems will deeply integrate with solar PV, wind power, EV charging infrastructure, and microgrid systems, building a "generation-grid-load-storage integration" structure to achieve cross-time and cross-regional energy optimization. Leading enterprises with full-scenario storage solution capabilities will gain clear advantages in system architecture design, operational control, and scenario adaptation, realizing multi-scenario collaborative management through unified technical systems and platform capabilities, thereby improving equipment utilization efficiency and unlocking value. Consequently, industry competition will shift from equipment performance to system coordination and solution integration, driving enterprises to differentiate through system architecture, operational platforms, and market participation capabilities.

Intelligence empowers efficiency upgrades in energy storage systems. With the maturity of artificial intelligence, big data, and cloud computing technologies, energy storage systems are advancing toward dynamic learning and predictive decision-making. AI algorithms analyze market prices, weather, load, and equipment status in real time to output optimal scheduling strategies, achieving the dual goals of maximizing returns and extending lifespan. Algorithms also enable predictive maintenance, significantly improving O&M efficiency, system availability, and safety. In the future, the competitiveness of lithium-ion battery storage enterprises will not only depend on manufacturing capabilities but also on their depth of expertise in intelligent algorithms, closed-loop data management, and platform-based operations.

Accelerating vertical integration of energy storage industry chain. As the market expands, the industry chain is shifting from fragmented cooperation to vertical consolidation. Leading enterprises are deploying across cell manufacturing, system integration, EMS software, and backend O&M, achieving upstream-downstream coordination and cost control. The integrated model helps enterprises maintain price stability and delivery security amid supply chain fluctuations, while internal integration of data and algorithms creates a complete closed loop from design to operations.

Entry Barriers of Global and Chinese Mainland Lithium-ion Battery Energy Storage System Industry

Channel barriers. Many countries impose strict entry requirements on energy storage products and system integrators, including safety certifications, grid connection standards, localized service capabilities and local compliance qualifications, with long entry cycles and high costs. Established enterprises, leveraging project track records, technical support and O&M networks covering key regions, and scale advantages, hold strong influence and long-term partnerships in major client markets. Once customers complete system selection and validation, switching suppliers incurs high costs, creating significant resistance for new entrants in channel expansion.

Technical barriers. The lithium-ion battery energy storage industry demands extremely high system integration capabilities, requiring deep expertise in cell selection and matching, module design, BMS and EMS coordination, thermal management, and safety strategies. Only enterprises with strong integration capabilities can ensure stable output under diverse operating conditions, improve energy utilization efficiency, reduce lifecycle costs, and guarantee grid safety and reliability.

Multi-scenario delivery capability barriers. Lithium-ion battery energy storage systems must adapt to diverse application scenarios across utility side and user-side, with significant differences in capacity configuration, safety standards, control strategies, and system integration. Leading enterprises typically possess cross-scenario product platforms and engineering experience, enabling rapid customization and large-scale delivery. New entrants lacking multi-scenario project experience and integration capabilities face limitations in solution reliability and delivery efficiency, making it difficult to meet customer demands for comprehensive solutions.

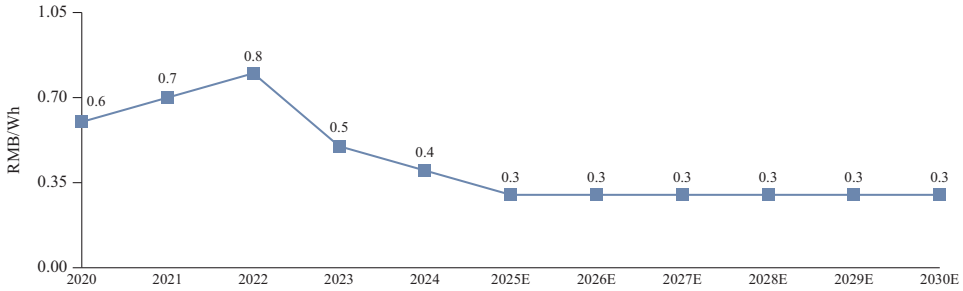
Talent barriers. The lithium-ion battery energy storage industry relies heavily on interdisciplinary talent across electrochemistry, power systems, automation, and project management. Professionals with system engineering and application experience are scarce, and leading enterprises attract talent through technological accumulation and brand advantages, creating a strong talent magnet effect that limits new entrants.

Cost Structure and Raw Material Prices Analysis of Global Lithium-ion Battery Energy Storage System Industry

The raw materials of lithium-ion battery energy storage systems primarily include battery, PCS, among others. Battery and PCS accounted for approximately 70.0% and 10.0% of the total raw material costs in 2024, respectively.

The price of lithium-ion battery energy storage system battery cells is one of the core influencing factors of the cost of energy storage systems. From 2020 to 2022, with the rapid growth of global demand for new energy vehicles and energy storage and the limited supply of lithium carbonate, caused a sharp price surge in lithium-ion battery energy storage system battery cells. Consequently, the price of lithium-ion battery energy storage system battery cells increased from RMB0.6/Wh to RMB0.8/Wh. However, starting in 2023, as the supply of lithium carbonate gradually increased, the price of lithium-ion battery energy storage system battery cells declined from 0.5 RMB/wh in 2023 to 0.4 RMB/Wh in 2024. Looking ahead, with the moderated growth in the energy storage system industry and steady supply of lithium carbonate, the price of lithium-ion battery energy storage system battery cells is anticipated to maintain at a low level from 2025 and the price of battery cells is expected to drop to approximately RMB0.3/Wh by 2030.

Price of Lithium-ion Battery Energy Storage System Battery Cells (Chinese Mainland), 2020–2030E



Source: Frost & Sullivan Analysis

GLOBAL AND CHINESE MAINLAND COMMERCIAL AND INDUSTRIAL LITHIUM-ION BATTERY ENERGY STORAGE SYSTEM INDUSTRY

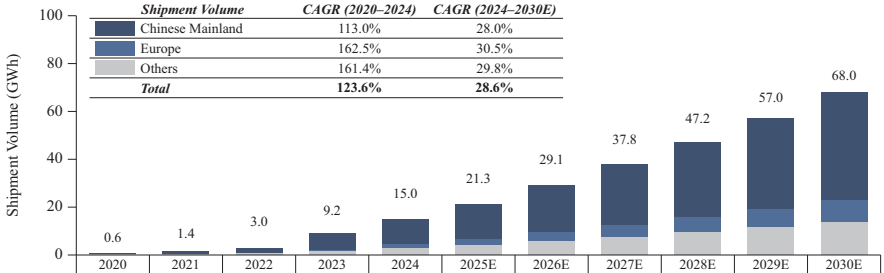
Definition and Overview of Global and Chinese Mainland Commercial and Industrial Lithium-ion Battery Energy Storage System Industry

The commercial and industrial lithium-ion battery energy storage system is an energy storage system centered on lithium-ion-ion batteries, primarily designed to meet the storage needs of electricity users such as factories, industrial parks, commercial buildings, and public facilities. Functionally, the commercial and industrial lithium-ion battery energy storage system mainly serves demands for peak shaving and valley filling, load balancing, power quality optimization, and improvement of electricity reliability, reducing overall energy costs by optimizing the structure of power usage. Against the backdrop of energy transition and the intelligentization of power systems, the commercial and industrial lithium-ion battery energy storage system has gradually evolved into critical infrastructure for factories, industrial parks, commercial buildings, and public facilities, enhancing energy efficiency, strengthening power system resilience, and supporting the operation of new-type power systems.

Market Size of Global and Chinese Mainland Commercial and Industrial Lithium-ion Battery Energy Storage System Industry

In 2024, the market size of commercial and industrial lithium-ion battery energy storage system industry in terms of shipment volume reached 15.0GWh globally and 10.3GWh in Chinese Mainland, growing at a CAGR of 123.6% and 113.0% from 2020 to 2024, respectively. In the future, the market size of commercial and industrial lithium-ion battery energy storage system industry in terms of shipment volume reached 68.0GWh globally and 45.2GWh in Chinese Mainland by 2030, represent a CAGR of 28.6% and 28.0%, respectively.

Market Size of Commercial and Industrial Lithium-ion Battery Energy Storage System Industry (Global), 2020–2030E



	2020	2021	2022	2023	2024	2025E	2026E	2027E	2028E	2029E	2030E
Total	0.6	1.4	3.0	9.2	15.0	21.3	29.1	37.8	47.2	57.0	68.0
Chinese Mainland	0.5	1.1	2.3	7.0	10.3	14.5	19.6	25.4	31.6	37.9	45.2
Europe	0.0	0.1	0.2	0.8	1.9	2.8	3.9	5.1	6.4	7.8	9.4
Others	0.1	0.2	0.5	1.4	2.8	4.0	5.6	7.3	9.2	11.3	13.4

Source: EESA; CNESA; Frost & Sullivan Analysis

Future Opportunities of Global and Chinese Mainland Commercial and Industrial Lithium-ion Battery Energy Storage System Industry

Scenario-based energy storage systems closely aligned with commercial and industrial load characteristics. Commercial and industrial energy storage users typically exhibit large load fluctuations, concentrated electricity consumption periods, and complex energy usage structures. Therefore, compared with other application scenarios, the commercial and industrial context places higher demands on energy storage systems in terms of response speed, operational stability, and strategic flexibility. The energy storage systems must precisely match enterprise production rhythms, electricity price cycles, and peak-valley differences in energy use. This drives energy storage systems to embed load analysis and revenue models deeply at the solution design stage, transforming storage from a general-purpose device into a customized energy management tool tailored to specific commercial and industrial scenarios. Scenario adaptability has thus become a key factor in industry competition.

Deep integration of commercial and industrial energy storage with digital energy operations. In commercial and industrial settings, the value of lithium-ion battery energy storage systems depends heavily on sustained operational performance. With the advancement of digital capabilities, these systems are becoming core nodes within the energy operation frameworks of commercial and industrial users. By enabling real-time monitoring of load variations, equipment status, and operational efficiency, they support dynamic scheduling and strategy optimization. Digital platforms allow commercial and industrial energy storage to shift from fixed operating strategies to rolling optimization, maintaining stable returns under complex conditions and uncertain energy usage. This accelerates the industry's transformation from an engineering-oriented to an operation-oriented model.

Acceleration toward diversified business models. In the future, the commercial and industrial energy storage industry will gradually move away from reliance on policy subsidies and single price-differential revenues, transitioning toward diversified profit models led by market mechanisms. As electricity market liberalization advances, the value boundaries of commercial and industrial energy storage will continue to expand. Beyond peak-valley arbitrage and user demand triggered by two-part tariffs, additional revenue streams will emerge, for example, participation in demand-side response within virtual power plants, engaging in spot market transactions, and providing ancillary services. Meanwhile, business models such as energy performance contracting, owner self-build, and pure leasing will be further refined to meet diverse user needs. The diversification of business models not only enhances the adaptability and replicability of commercial and industrial energy storage but also strengthens the stability and sustainability of project returns, marking an important milestone in the industry's progression toward maturity.

Competitive Landscape of Global and Chinese Mainland Commercial and Industrial Lithium-ion Battery Energy Storage System Industry

The global commercial and industrial lithium-ion battery energy storage system industry was relatively fragmented. As of December 31, 2024, the number of commercial and industrial lithium-ion battery energy storage system providers in Chinese Mainland was approximately 800. In terms of global shipment volume of commercial and industrial lithium-ion battery energy storage system in 2024, the top twelve Chinese lithium-ion battery energy storage system integrators accounted for approximately 28.8%, among which our Group ranked twelfth, with a market share of approximately 1.1%. In terms of global shipment volume of commercial and industrial lithium-ion battery energy storage system in the nine months ended 30 September 2025, the top ten Chinese lithium-ion battery energy storage system integrators accounted for approximately 32.9%, among which our Group ranked eighth, with a market share of approximately 2.0%.

Top Ten Chinese Lithium-ion Battery ESS Integrators in terms of Global C&I Lithium-ion Battery ESS Shipment Volume in the Nine Months Ended 30 September 2025

Ranking	Company	Listing Status	Headquarters	Market Share (%)
1	Company A	Listed	Anhui Province, China	7.3%
2	Company B	Unlisted	Anhui Province, China	5.9%
3	Company C	Unlisted	Shaanxi Province, China	3.8%
4	Company D	Unlisted	Jiangsu Province, China	3.2%
5	Company E	Unlisted	Shanghai, China	2.6%
6	Company F	Unlisted	Jiangsu Province, China	2.4%
7	Company G	Listed	Zhejiang Province, China	2.1%
8	**Our Group**	—	**Jiangsu Province, China**	**2.0%**
9	Company H	Unlisted	Shanghai, China	1.9%
10	Company I	Listed	Beijing, China	1.7%
Top ten	—	—	—	**32.9%**

Notes:

1. Company A was established in 1997, it is listed on the Shenzhen Stock Exchange. It primarily provides PV inverters, energy storage systems, wind power converter and transmission products, new energy vehicles' electric control, power supply and charging equipment.
2. Company B was established in 2022, the company is engaged in the research and development, production, sale, services and solution-based commercialization of core energy storage equipment products.
3. Company C was established in 2018, it is focused on core technology research and product development for advanced energy storage systems, actively promoting the integration of large-scale clean energy systems.
4. Company D was established in 2015, it provides comprehensive intelligent energy solutions covering generation, transmission, consumption, and storage.
5. Company E was established in 2019, it provides digital energy solutions, large-scale energy storage system integration products, commercial and industrial energy storage products, and green power transportation vehicle energy products.
6. Company F was established in 1995, it is dedicated to the research, development, and industrialization of power protection and control equipment, as well as intelligent power equipment for power grids, power plants, and various industrial and mining enterprises.
7. Company G was established in 2002 and is listed on the Shenzhen Stock Exchange. It primarily focuses on the research, development, production, and sales of solar photovoltaic modules, while also engaging in solar power plant EPC, solar power plant operations, and energy storage systems.
8. Company H was established in 2021, its products include industrial and commercial energy storage systems, residential energy storage systems, and grid-side energy storage systems.
9. Company I was established in 2007 and is listed on the Shanghai Stock Exchange and The Stock Exchange of Hong Kong Limited. The company is primarily engaged in the railway equipment business and has gradually developed new business segments with wind power equipment, new materials photovoltaics, and energy storage systems.

Source: Annual Reports; Interviews Conducted by Frost & Sullivan with Experts from Leading Market Players; Frost & Sullivan Analysis

In terms of shipment volume of commercial and industrial lithium-ion battery energy storage system in overseas market in 2024, the top five Chinese lithium-ion battery energy storage system integrators accounted for approximately 8.6%, among which our Group ranked fourth, with a market share of approximately 1.2%. In terms of shipment volume of commercial and industrial lithium-ion battery energy storage system in overseas market in the nine months ended 30 September 2025, the top five Chinese lithium-ion battery energy storage system integrators accounted for approximately 14.1%, among which our Group ranked third, with a market share of approximately 2.0%.

Top Five Chinese Lithium-ion Battery ESS Integrators in terms of C&I Lithium-ion Battery ESS Shipment Volume in Overseas Market, in the Nine Months Ended 30 September 2025

Ranking	Company	Listing Status	Headquarters	Market Share (%)
1	Company A	Listed	Anhui Province, China	7.7%
2	Company G	Listed	Zhejiang Province, China	2.2%
3	**Our Group**	—	**Jiangsu Province, China**	**2.0%**
4	Company B	Unlisted	Anhui Province, China	1.2%
5	Company D	Unlisted	Jiangsu Province, China	1.0%
Top five	—	—	—	**14.1%**

Source: Annual Reports; Interviews Conducted by Frost & Sullivan with Experts from Leading Market Players; Frost & Sullivan Analysis

GLOBAL AND CHINESE MAINLAND DIGITAL ENERGY SOLUTION INDUSTRY

Definition and Overview of Global and Chinese Mainland Digital Energy Solution Industry

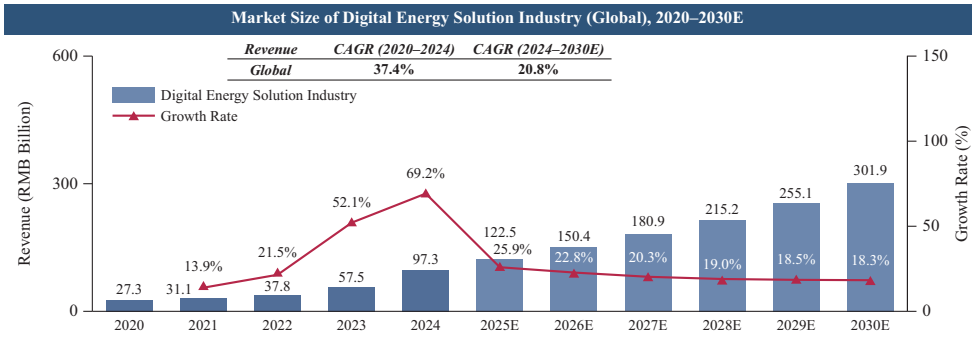
Digital energy solutions are solutions that leverage information technology, artificial intelligence, big data, and the Internet of Things to enable efficient production, distribution, storage, and consumption management of energy. Application scenarios for digital energy solutions cover both the user side and the utility side, with key products including VPP aggregation platforms, EMS, and other SaaS-based energy services. Their core value lies in providing enterprises, governments, and individual users with

services such as energy consumption optimization, scheduling decision-making, market transactions, and intelligent operation and maintenance through software- and platform-based approaches, thereby building the "data brain" of the energy system.

The business models of the digital energy solutions industry are centered on data-driven energy management and value-added services, and are mainly divided into the B-end model targeting enterprise customers and the C-end model targeting individual users. The B-end model focuses on energy investors, energy-consuming enterprises, and public institutions as primary clients, providing digital platforms such as EMS and VPP dispatch systems to achieve optimized allocation of energy assets and enhanced returns. Revenue sources include software licensing, system subscriptions, data services, and operation and maintenance services. The C-end model, on the other hand, targets households and small-scale users, relying on cloud-based energy management platforms and AI algorithms to improve electricity cost efficiency through functions such as electricity price forecasting, energy use optimization, and household energy storage scheduling, with revenues mainly derived from subscription-based software services. Both models take software and data as core assets, emphasizing the enhancement of customer stickiness and service value through continuous data accumulation and algorithm iteration, thereby gradually transforming from one-off sales to long-term service-oriented business loops.

Market Size of Global Digital Energy Solution Industry

With the increasing emphasis on energy management, the global digital energy solution industry has maintained rapid growth. From 2020 to 2024, the global market size of digital energy solution industry in terms of revenue grew from RMB27.3 billion to RMB97.3 billion, with a CAGR of 37.4%. In the future, with continuous technological advancement and the further expansion of application scenarios, the global market size of digital energy solution industry in terms of revenue is expected to reach RMB301.9 billion by 2030, with a CAGR of 20.8% from 2024 to 2030.



Source: Frost & Sullivan Analysis

Market Drivers of Global and Chinese Mainland Digital Energy Solution Industry

Digital energy solutions as core tools for enterprises to enhance efficiency and visualized management. With the rapid growth of distributed energy, traditional manual-driven operation and scheduling models can no longer cope with the complex operating scenarios of massive energy equipment. Digital energy solutions, through IoT data collection, edge computing, and visualized platform-based management, enable energy systems to achieve transparency, controllability, and automation. By leveraging real-time data analysis and intelligent decision support, enterprises can realize refined energy management and improved operational efficiency. Digitalization not only reduces labor costs but also enhances system safety and economic performance, becoming an irreversible direction in the modernization of energy systems.

Advances in artificial intelligence and big data driving intelligent decision-making in energy systems. The application of AI algorithms and big data in load forecasting, optimal scheduling, and equipment diagnostics has become increasingly mature, shifting energy systems from passive monitoring to proactive optimization. Through real-time data training and model iteration, systems can dynamically adjust operating strategies to maximize returns and minimize risks. Technological progress lowers deployment thresholds, enabling enterprises to achieve intelligent upgrades without altering existing hardware architectures, thereby accelerating the adoption of digital energy solutions.

Carbon neutrality strengthening demand for energy data transparency and platform-based carbon management. In recent years, as carbon reduction targets have been incorporated into national strategies and enterprise performance assessments, the traceability of energy data and carbon accounting capabilities have become essential. Digital energy solutions, through data collection, carbon factor calculation, and emission tracking, enable full-process quantification and disclosure from energy consumption to carbon emissions. Regulatory authorities are raising requirements for corporate energy reporting and carbon information disclosure, driving enterprises to accelerate the deployment of digital energy management systems. The trend toward integrating carbon management with energy operations elevates digital energy solutions from auxiliary tools to core components of corporate energy governance.

Energy market reforms driving growth in asset trading and aggregation management. As global electricity markets gradually open, the maturation of spot markets, capacity markets, and ancillary service markets has endowed energy assets with tradable attributes. Digital energy solutions serve as critical hubs connecting assets, markets, and users, enabling distributed energy to maximize returns through aggregation management and strategy optimization. Market reforms not only increase the complexity of asset operations but also create rigid demand for digital platforms. Digital energy systems equipped with market interfaces, aggregation algorithms, and compliant settlement capabilities have become indispensable technical infrastructure for enterprises participating in energy markets.

Future Opportunities of Global and Chinese Mainland Digital Energy Solution Industry

Integrated development of software and hardware enhancing the competitiveness of digital energy solutions. Digital energy solutions are becoming a key pathway for hardware providers to extend their value chains in lithium-ion battery energy storage industry. Companies with strong hardware foundations naturally hold advantages in acquiring system operation data, understanding application scenarios, and enabling real-world deployment. This makes it easier for them to embed digital energy solutions into the planning, operation, and optimization of lithium-ion battery energy storage systems. While digital energy solutions enhance system visualization, intelligent dispatching, and operational efficiency, they also reinforce the irreplaceable role of hardware within the broader energy system. This reduces user switching costs and increases the stickiness of integrated solutions. During this process, the continuous iteration of software capabilities, in turn, drives the adaptation and deployment of hardware across a broader range of scenarios, accelerating hardware penetration. This dynamic fosters a synergistic and mutually reinforcing development pattern between digital energy solutions and lithium-ion battery energy storage systems, emerging as a key direction for the industry to build long-term competitive advantages.

Platformization and open ecosystems as the dominant model for digital energy solutions. Digital energy solutions are evolving from closed systems to open ecosystem platforms. Enterprises are building SaaS-based platforms and standardized interfaces to enable collaboration with equipment manufacturers, aggregators, grid operators, and third-party service providers. Open platforms bring stronger compatibility and scalability, while data sharing and co-creation foster network effects. Future competition will no longer be limited to single functions but will revolve around the breadth and extensibility of platform ecosystems. Enterprises with ecosystem integration and openness capabilities will occupy leading positions in the industry.

Commercialization of virtual power plants accelerates the release of distributed resource value. Virtual power plants aggregate distributed PV, storage, and controllable loads through digital platforms, participating in electricity market transactions and ancillary services to achieve centralized optimization

of distributed resources. This model has entered commercialization in multiple markets, becoming a key means of flexible regulation and revenue optimization for power systems. The development of virtual power plants relies not only on technological support but also on enterprises' understanding of market rules and compliance capabilities. As aggregation models mature and standardization advances, virtual power plants will become an important growth engine for the digital energy industry.

"Energy-as-a-service (EaaS)" model accelerating business transformation in the industry. Traditional digital energy business models have focused on system integration and software deployment, while the future dominant model is shifting toward "Energy-as-a-Service" (EaaS). Enterprises provide customers with continuous services such as energy monitoring, strategy optimization, asset aggregation, and market participation through subscription or revenue-sharing models, enabling customers to maximize energy asset value without building their own systems. This model not only improves corporate cash flow structures but also enhances customer stickiness and long-term cooperation. As market demand grows for flexible, low-threshold, and results-oriented services, EaaS will become the core direction of digital energy solution commercialization.

Competitive Landscape of Global and Chinese Mainland Digital Energy Solution Industry

With the development trends of energy system digitization and value diversification, the lithium-ion battery energy storage system integrators are actively transforming from hardware equipment providers to digital energy solution service providers. Through offering intelligent platforms and services spanning the entire energy lifecycle, from generation, transmission, and consumption to storage, they extend their value chains and build differentiated competitive advantages. These providers leverage their deep understanding of energy storage physics, extensive grid-connected equipment base, and profound industry expertise to tailor digital solutions to practical needs, achieving coordinated optimization of both software and hardware. As of December 31, 2024, the number of participants in Chinese Mainland digital energy solutions market has reached approximately 2,000.

SOURCE AND RELIABILITY OF INFORMATION

In connection with the [REDACTED], we engaged an independent market research consultant, Frost & Sullivan, to conduct an analysis of, and to prepare an industry report on the industries where we operate with a commission fee of RMB500,000. Founded in 1961, Frost & Sullivan is an independent global consulting firm that conducts industry research and prepares industry report on a wide range of industries, among other services. The information from Frost & Sullivan disclosed in this document is extracted from the Frost & Sullivan Report with its consent.

In compiling and preparing the Frost & Sullivan Report, Frost & Sullivan used the following key methodologies to collect multiple sources, validate the collected data and information, and cross-check each respondent's information and expressions against those of others: (i) detailed primary research, which involved discussing the status of the industry with leading industry participants and industry experts; and (ii) secondary research, which involved reviewing published sources including reports of market participants, independent research reports and data based on Frost & Sullivan's own research database.

Frost & Sullivan adopted the following primary assumptions while making projections for preparing the Frost & Sullivan Report: (i) global and Chinese Mainland economy is likely to maintain steady growth in the next decade; (ii) global and Chinese Mainland social, economic and political environment is likely to remain stable in the forecast period; and (iii) market drivers such as policy incentives, technological iteration, rising demand for energy autonomy, among others.

Except as otherwise noted, all of the data and forecasts contained in this section are derived from the Frost & Sullivan Report. Our Directors confirm that after taking reasonable care, there is no material adverse change in the overall market information since the date of the Frost & Sullivan Report that would materially qualify, contradict, or have an impact on such information.