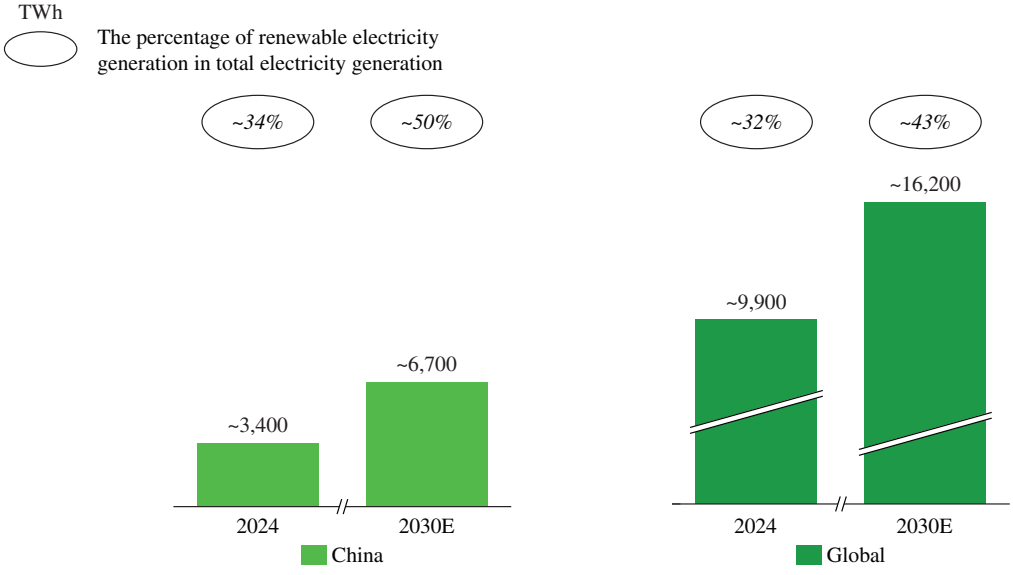
The information and statistics set out in this section and other sections of this document were extracted from different official government publications, available sources from public market research and other sources from independent suppliers, and from the independent industry report prepared by China Insights Consultancy Limited ("CIC"). We engaged CIC to prepare an independent industry report in connection with the* [REDACTED] *(the "CIC Report"). The information from official government sources has not been independently verified by us, the Joint Sponsors,* [REDACTED]*, any of the* [REDACTED]*, any of their respective directors, supervisors, and advisors, or any other persons or parties involved in the* [REDACTED]*, and no representation is given as to its accuracy. Accordingly, the information from official government sources contained herein may not be accurate.

OVERVIEW OF THE GLOBAL ELECTRICITY INDUSTRY

Accelerating Transition to Renewable Energy Generation

Power systems are essential for modern society, enabling the reliable generation, transmission, and distribution of electricity to homes, industries, and critical infrastructure. With countries around the world endeavouring to promote energy system decarbonization, the power system plays a critical role in this transition. Unprecedented growth in renewable energy deployment creates complex operational challenges, yet also presents new opportunities for power system stakeholders. Of all these countries, China is leading this global transition. The inherent intermittency of renewable energy is fundamentally reshaping the balance between electricity generation and consumption, placing greater demands on the power system's voltage conversion capabilities and flexibility.

Global and China's renewable electricity generation, 2024-2030E



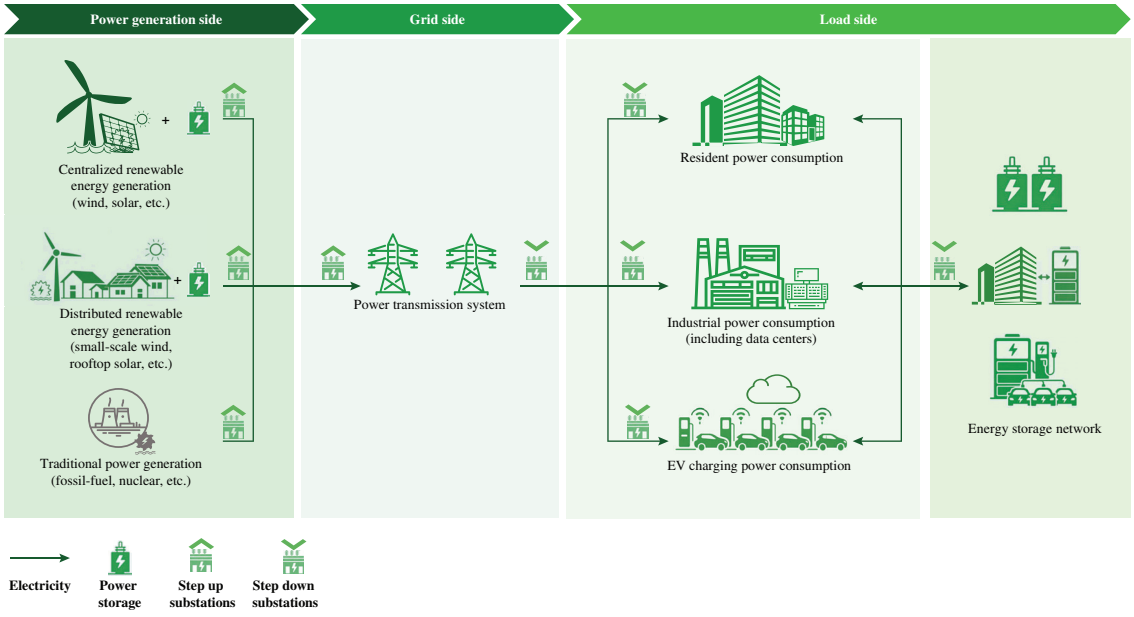
Source: International Energy Agency (IEA), CIC

The Next-Generation Power System Reshapes the Traditional Paradigm

The traditional power system is designed for unidirectional energy transmission, where electricity flows in a one-way, linear path from large, centralized power plants through high-voltage transmission lines and distribution networks to end users. It faces (i) rigid supply-demand matching that requires continuous cross-regional dispatch to maintain real-time balance, (ii) peak-off-peak load swings that leave generation capacity underutilized, (iii) transmission and distribution limits that create connection bottlenecks in high-demand areas, (iv) time-of-use pricing that causes cost volatility, and (v) aging infrastructure that increases maintenance and upgrade burdens.

In response, the next-generation power system is transforming into a decentralized, intelligent, and flexible digital network, driven by high renewable energy penetration, bidirectional and on-demand power transmission, and flexible distribution networks. On the load side, electricity use is becoming more diverse and geographically dispersed, spanning industrial parks, electric vehicles, commercial and public facilities, and households, which increases the complexity of managing demand. At the same time, distributed energy resources enable supply and demand to be balanced closer to where electricity is used. This helps smooth peak-period demand, ease grid congestion, improve overall capacity utilization, and moderate electricity cost fluctuations. The diagram below depicts the architecture of the next-generation power system.

Diagram of the next-generation power system

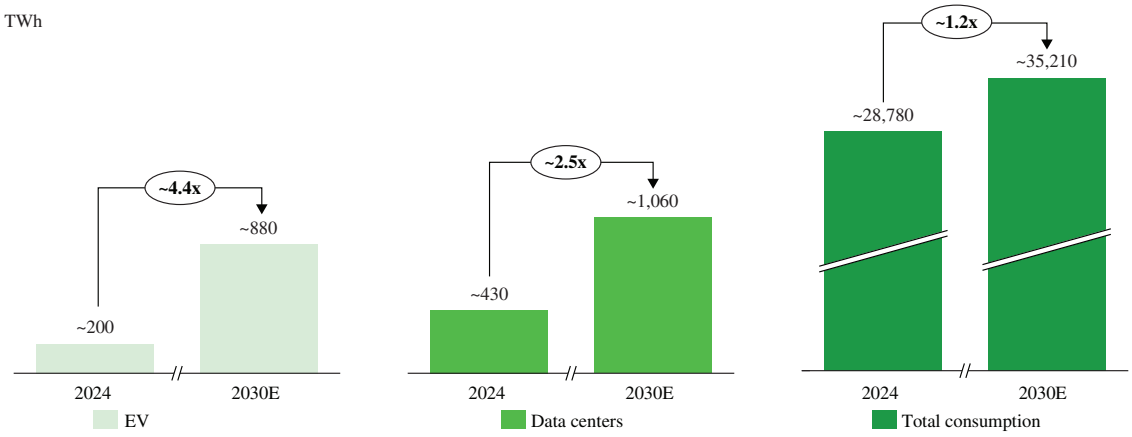


Source: CIC

Upgraded Power Infrastructure and Emerging Use Cases Amid Power System Transformation

Major economies worldwide have identified power system transition, modernization and supply security as a long-term priority. China is a global leader in building the next-generation power system. Amid this trend, global electricity consumption has grown steadily. The industrial sector was the largest consumer of electricity globally, accounting for approximately 40% of the total in 2024. Looking ahead, EVs and data centers are expected to become important drivers of incremental electricity demand. EV charging is becoming concentrated in specific locations and peak periods, placing growing pressure on local distribution networks and requiring smarter charging scheduling and management. At the same time, rapid growth in AI workloads and data center capacity is increasing demand for highly reliable, uninterrupted power supply to support dense, large-scale electricity use within compact facilities. China, which leads globally in EV penetration and AI infrastructure deployment, accounted for over 60% of global electricity consumption from EV and more than 25% from data centers in 2024. The following charts demonstrate the global electricity consumption by application scenarios.

Global electricity consumption, by application scenarios, 2024-2030E



Source: IEA, CIC

The next-generation power system is a smart energy network including numerous substations that perform voltage step-up and step-down, AC to DC conversion, and energy management. Given that renewable energy output is inherently variable, power supply is more intermittent and less controllable, which increases overall system instability. This drives the need for additional substation capacity (especially high-voltage) to manage fluctuating power flows, and for more intelligent dispatch networks to maintain grid stability across diverse scenarios.

OVERVIEW OF GLOBAL PREFABRICATED SUBSTATION INDUSTRY

Substations as Critical Nodes of the Next-Generation Power System

Substations are pivotal hubs within the power system, performing power transformation, including both step-up and step-down, to meet the varying demands of electricity consumption and transmission across different segments.

In the next-generation power system, the role of substations is evolving from passive connection points to multi-directional intelligent power hubs. On the generation side, substations condition and stabilize intermittent renewable energy output before it enters the grid. On the grid side, they act as switching and routing hubs that manage multi-directional power flows. On the load side, they ensure reliable delivery to electricity-intensive end-users while enabling bidirectional energy exchange.

Prefabricated Substations as an Emerging Solution in the Next-Generation Power System

A prefabricated substation is a new type of factory-assembled, modular structure that integrates main switchgear, power transformers, protective control devices, and their auxiliary systems and other related functional modules within a highly compact outdoor prefabricated module.

Traditional substations are increasingly unable to meet the core requirements of efficient deployment, reliable operation, and flexible responsiveness demanded by the next-generation power system. Prefabricated substations have emerged as a critical enabler for power infrastructure upgrades due to their high adaptability. Compared with traditional substations, prefabricated substations are factory-built and preassembled, significantly shortening construction time and reducing on-site installation workload, thereby enabling rapid and flexible deployment. Moreover, their fully enclosed structure enhances equipment protection level and operational reliability, allowing for deployment in high-density and high-load environments.

Comparison between the traditional substation and the prefabricated substation

	Traditional substation	Prefabricated substation
Construction and installation	Significant civil construction work, on-site installation, difficult to expand and modify	Factory-prefabricated, fully-enclosed, rapid on-site installation, easy expansion
Manufacture and deployment time	One to three years	Within six months
Ingress Protection (IP) rating	Dependent on construction materials and environmental conditions	Higher protection level with strong environmental adaptability (e.g. dust- and moisture-proof)
Mobility and flexibility	Fixed-location, limited mobility	Modular, relocatable where required; easier to redeploy and reconfigure
Installation cost	Higher cost due to labor-intensive construction and extended on-site work	Relatively lower due to reduced labor input and streamlined installation

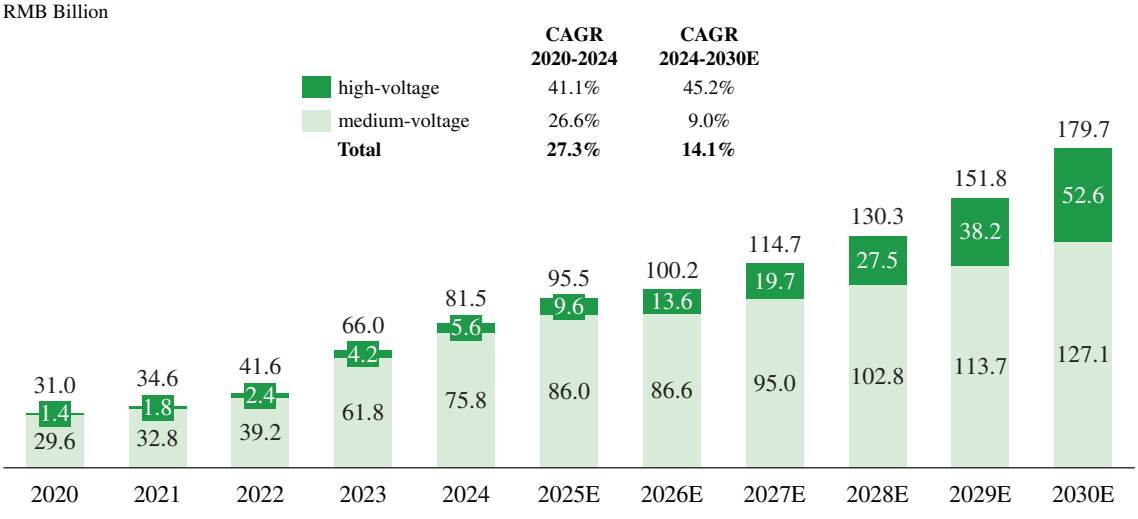
Source: CIC

Global voltage classification is primarily based on two established frameworks: the International Electrotechnical Commission (IEC) and the Institute of Electrical and Electronics Engineers (IEEE). As the most widely adopted voltage classification standard worldwide, the IEC framework is applied across China, Europe, and most countries in Asia and Africa, while the IEEE framework is mainly used in the Americas. Under the IEC framework, prefabricated substations can be classified by voltage level into medium-voltage (1-35 kV) and high-voltage (above 35 kV). Compared with medium-voltage prefabricated substations, which are typically deployed at distribution endpoints and near end users, high-voltage prefabricated substations function as critical nodes for power aggregation and long-distance transmission, where operational reliability is essential to overall grid stability. Their higher operating voltages introduce greater technical challenges in insulation, power control and protection, electrical clearances, electromagnetic compatibility, and fault protection, requiring more reliable and intelligent equipment, and stronger system integration and engineering capabilities.

Market Size of Global Prefabricated Substation Industry

According to CIC, the market size of the global prefabricated substation industry reached RMB31.0 billion in 2020 and grew to RMB81.5 billion by 2024, representing a CAGR of 27.3% during this period. It is anticipated that by 2030, the market size of the global prefabricated substation industry will reach RMB179.7 billion, with a CAGR of 14.1% from 2024 to 2030. Moreover, high-voltage prefabricated substations, which are essential for supporting high-voltage node construction, had a market size of RMB5.6 billion in 2024, and are expected to increase to RMB52.6 billion by 2030, representing a CAGR of 45.2% from 2024 to 2030.

Market size of global prefabricated substation industry, in terms of revenue, by voltage level, 2020-2030E



Source: CIC

Drivers and Trends of the Global Prefabricated Substation Industry

Renewable energy generation as mainstream. "Net zero" is accelerating the expansion of renewable energy capacity. Installations in remote and harsh environments, such as deserts and high-altitude plateaus, coupled with the accelerated deployment of generation-side energy storage are increasing demand for highly integrated, rapidly deployable substation solutions. Prefabricated substations enable efficient deployment under adverse conditions and timely grid connection with intelligent control and protection, driving their adoption on the power generation side.

Increased demand for grid expansion. Rising electricity consumption and distributed photovoltaic energy generation strain power networks in capacity redundancy, operational stability, and dispatch flexibility, driving expansion and structural optimization. With modular structure and scalability, prefabricated substations provide rapid solutions for ring network power supply, capacity enhancement, and fault replacement across urban expansion areas, industrial parks, and rural grid upgrades.

Growth in data center load. Surging computational demand from AI is increasing rack power density, exposing limitations in power capacity, energy efficiency, and adaptability to DC load. Solid-state power transformers integrated into prefabricated substations enable efficient power transformation directly from high- or medium-voltage AC (220-10 kV) to DC at 800 V, simplifying power supply architecture and reducing transmission losses, driving demand in data center scenarios.

Industrial modernization. The industrial sector accounts for a significant share of global electricity consumption. Upgrading manufacturing activities and concentrated industrial clusters raise higher requirements on substation voltage levels, power supply reliability, and deployment efficiency. Prefabricated substations support rapid construction and phased capacity expansion, widening deployment capacity.

Overseas expansion of Chinese enterprises. Global energy transition and grid upgrades create opportunities for Chinese prefabricated substation enterprises to expand overseas, leveraging advantages in product reliability, environmental adaptability, and intelligent integration. Under the "Belt and Road" initiative, Chinese enterprises are addressing demand in extreme environments such as the Middle East. Total investment in the power sector across the Middle East from 2025 to 2030 is projected to exceed USD 800 billion, with Saudi Arabia undertaking large-scale grid modernization initiatives, representing a total investment of over USD 50 billion during the same period.

Competitive Landscape of Global Prefabricated Substation Industry

The global prefabricated substation market is relatively fragmented, with the top five manufacturers accounting for approximately 27.3% of total market share. In terms of revenue from prefabricated substations in 2024, our Company is the largest manufacturer globally, with a market share of 8.6%. The high-voltage prefabricated substation segment shows a much higher market concentration because it requires stronger system integration and engineering capabilities than medium-voltage substations, as well as higher standards for insulation performance and system safety and reliability. In terms of revenue in 2024, our Company was also the world's largest manufacturer of high-voltage prefabricated substations with a market share of 47.3%. Based on revenue in 2023, our Company also ranked first worldwide in both the overall prefabricated substation market and the high-voltage prefabricated substation segment.

Competitive landscape of global prefabricated substation industry, 2024

Rank	Company name	Revenue from prefabricated substations	Market share by revenue from prefabricated substations	Revenue from high-voltage prefabricated substations	Market share by revenue from high-voltage prefabricated substations
		RMB billion	*%*	*RMB billion*	*%*
1	**The Company**	**7.0**	**8.6%**	**2.7**	**47.3%**
2	Company A	4.9	6.0%	0.7	11.7%
3	Company B	4.6	5.6%	0.4	6.5%
4	Company C	3.3	4.1%	<0.1	<1.8%
5	Company D	2.4	3.0%	<0.1	<1.8%

Source: CIC

Notes:

(1) Company A is a power equipment manufacturer founded in Chinese mainland in 1993. It mainly focuses on the manufacture and sale of prefabricated substations, complete switchgear systems, power transformers, and electrical cable products. It is a listed company on the Shanghai Stock Exchange.

(2) Company B is an intelligent power transmission and distribution equipment manufacturer and system service provider founded in Chinese mainland in 2006. It mainly focuses on the manufacture and sale of prefabricated substations, complete switchgear systems, power transformers, and electrical cable products. It is a listed company on the Shanghai Stock Exchange.

(3) Company C is a power equipment manufacturer founded in Chinese mainland in 1965. It mainly focuses on the manufacture and sale of prefabricated substations, complete switchgear systems, power transformers, electronic components, polysilicon, and solar cells. It is an unlisted company.

(4) Company D is an intelligent power distribution and consumption solution provider founded in Chinese mainland in 2007. It mainly focuses on the manufacture and sale of prefabricated substations, complete switchgear systems, power transformers, and smart meters. It is a listed company on the Shanghai Stock Exchange.

Entry Barriers of Global Prefabricated Substation Industry

High-voltage product matrix. High-voltage prefabricated substations are more technically challenging than medium-voltage ones. Leading manufacturers possess comprehensive capabilities across design, manufacturing, smart upgrade, testing, and on-site delivery, enabling them to support a wide range of applications. New entrants lack high-voltage product R&D, manufacturing and engineering experience, and project delivery capabilities.

Patent accumulation. A high-quality patent portfolio forms a strong barrier by protecting core technological innovations. Leading manufacturers hold patents in enclosure structures, electrical system optimization, intelligent control algorithms, environmentally friendly insulation materials, and specialized cooling design, enhancing high-voltage tolerance, operational safety redundancy, intelligent maintenance, and adaptability to extreme environments, which is difficult to circumvent.

Customer coverage. Customers are concentrated in large state-owned energy groups, national and local grid companies, major rail transit projects, and large data center enterprises, where supplier qualification processes and standards are stringent. Leading manufacturers have established trust through benchmark projects, while new entrants lack verifiable project track records.

Full lifecycle services. Leading manufacturers provide services including project planning and system design, equipment integration, smart manufacturing, grid integration support, and later-stage operation, maintenance, and upgrade services, combining equipment sales and service provision to improve delivery quality, operational reliability, and customer loyalty. New entrants typically focus on equipment sales and lack a full-process service system with safety and reliability.

Cost Analysis of Global Prefabricated Substation Industry

Copper, grain-oriented silicon steel, and transformer oil are the primary raw materials for prefabricated substations. Grain-oriented silicon steel is a specialized electrical steel primarily used in power transformers to enhance efficiency in power conversion. Specifically, the price of copper material has risen from approximately RMB54,000 per ton in 2020 to approximately RMB76,000 per ton by 2024. The price of grain oriented silicon steel has increased from approximately RMB13,000 per ton in 2020 to approximately RMB29,000 per ton in 2022, before gradually decreasing to approximately RMB13,000 per ton by 2024. Meanwhile, the price of transformer oil has risen from approximately RMB3,600 per ton in 2020 to approximately RMB7,400 per ton in 2022, followed by a gradual decline to approximately RMB6,900 per ton in 2024.

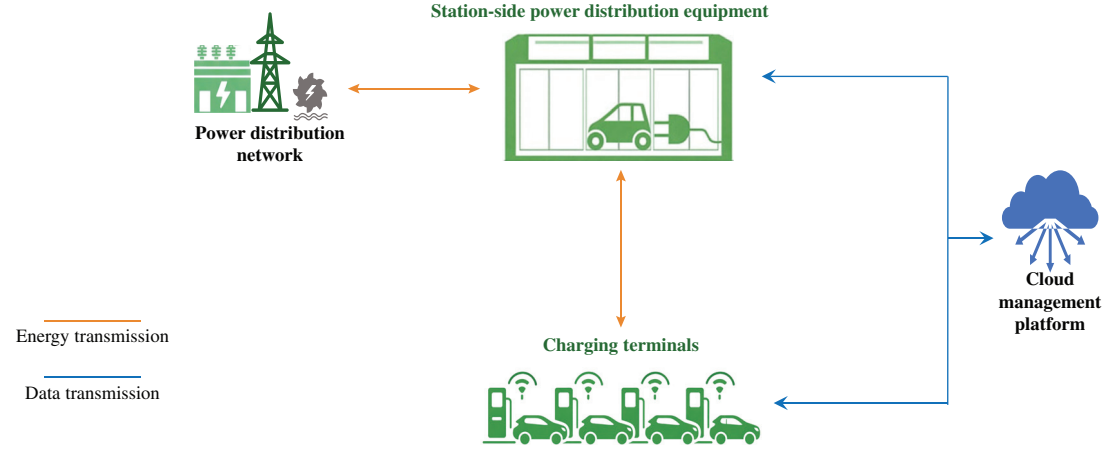
OVERVIEW OF CHINA'S EV CHARGING NETWORK INDUSTRY

Charging Networks as an Integral Part of the Next-Generation Power System

EV charging networks are energy replenishment networks composed of numerous distributed charging terminals, enabling unified access and coordinated operation between the power system and EV. In the next-generation power system, charging networks not only serve as the EV charging infrastructure, but are also evolving into a key type of dispatchable resources on the load side.

EV charging networks mainly comprise single-charger systems and intelligent cluster charging systems. Single-charger systems are typically configured as one charger paired with one or two charging terminals, with fixed power allocation. In contrast, intelligent cluster charging systems connect multiple charging terminals to station-side power distribution equipment that supports their concurrent and stable charging based on the power demand of individual vehicles, and are managed by unified cloud management platforms.

Diagram of an intelligent cluster charging system



Source: CIC

Charging networks are gradually evolving from the traditional single charger model into an integrated energy network coordinated with the power distribution network. The following comparison table presents features of intelligent cluster charging systems compared to single-charger systems.

Comparison between the traditional single-charger system and the intelligent cluster charging system

	Single-charger system	Intelligent cluster charging system
Architecture	Each charger is independently configured with fixed charging modules. The system is highly decentralized with limited resource sharing	Adopts an integrated system that aggregates multiple charging modules into a shared power pool, allocating power based on charging terminal demand.
Grid compatibility	Charging loads are largely uncontrollable, which may increase localized peak loads and grid pressure	Equipped with centralized dispatch and load management capabilities, enabling orderly charging based on grid capacity
Upgrade Cost	Capacity upgrades typically require dismantling and replacing existing chargers, involving equipment replacement and associated civil works	Capacity expansion can be achieved by adding charging modules without removing existing equipment
Maintenance cost	Each charger requires individual maintenance. Equipment failures impact charging station availability	Modular design allows faulty modules to be replaced without affecting any other charging terminals
Dispatch capability	Output per unit is fixed and cannot be dynamically adjusted based on different demands between vehicles	Supports dynamic power dispatch, enabling flexible allocation based on real-time demand, and improves terminals' utilization rates

Source: CIC

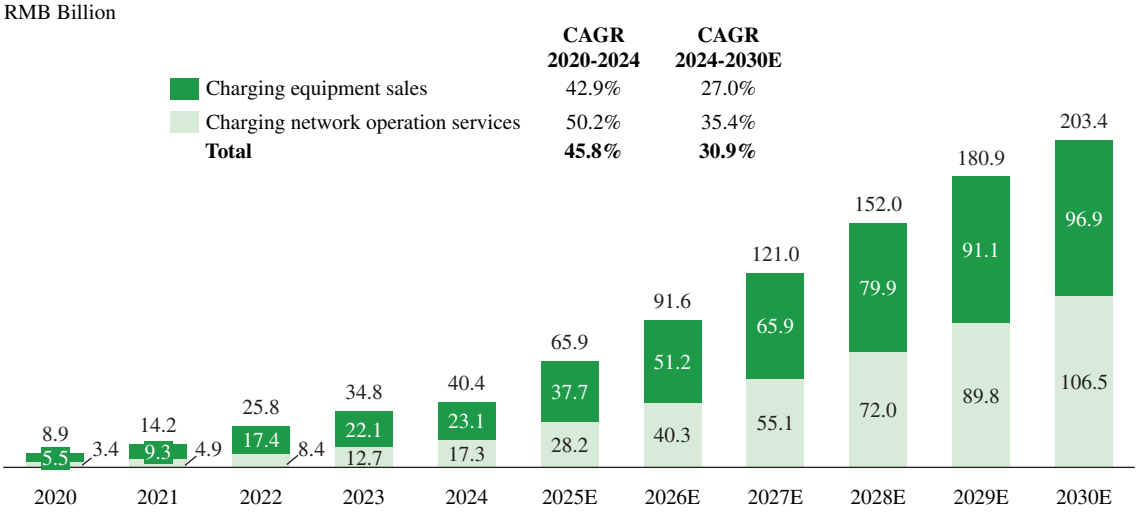
Business Models and Market Size of the EV Charging Network Industry

The business models of the charging network primarily comprise the sale of charging equipment and the provision of charging network operation services. The sale of charging equipment involves the supply of charging terminals, together with related installation services. Charging network operation services provide users with charging terminal location identification, navigation and seamless charging services, while offering station operators with centralized monitoring and maintenance, as well as AI-enabled data analytics tools.

Some operators are further extending into energy management services related to microgrid coordination and virtual power plants. Through the unified dispatch of charging loads, the integration of distributed generation and energy storage units, and the enablement of EV participation in energy regulation, vehicles are gradually transforming from single electricity-consuming terminals into distributed resources capable of energy storage and regulation, becoming a complementary extension of the operation business.

The Chinese mainland's EV charging network market is rapidly expanding as EV penetration continues to rise. According to CIC, the market size of the Chinese mainland's EV charging network reached RMB40.4 billion in 2024 and is expected to expand to RMB203.4 billion by 2030, representing a CAGR of 30.9% from 2024 to 2030. The market size of the Chinese mainland's charging network operation services segment therein is expected to grow from RMB17.3 billion in 2024 to approximately RMB106.5 billion by 2030, with a CAGR of approximately 35.4% from 2024 to 2030. In 2024, the total annual public charging volume in the Chinese mainland reached 55,750 GWh, and the number of public charging terminals in operation reached approximately 3.6 million, of which approximately 1.6 million were DC charging terminals.

Market size of the Chinese mainland's EV charging network, by business model, 2020-2030E



Note: The market size of charging network operation services is calculated based on the service fee charged per unit of electricity delivered.

Source: CIC

Drivers and Trends of the Chinese Mainland's EV Charging Network Industry

Rising adoption of EV. The ownership of the Chinese mainland EV has continued to grow rapidly. In 2020, the Chinese mainland had approximately 4.9 million EV, accounting for about 1.8% of total vehicle ownership nationwide. By 2024, the number increased to 31.4 million, representing 8.9% of total vehicle ownership, with a CAGR of 58.9% from 2020 to 2024. As the fleet expands, charging demand is shifting from low-frequency and dispersed usage to high-frequency and concentrated usage, placing higher demands on coverage density, system capacity, and operational efficiency of charging network infrastructure.

Advancement of autonomous driving technologies. The deployment of robotaxis, autonomous heavy-duty trucks, and unmanned delivery vehicles is driving charging networks toward unmanned operation. Automation and remote monitoring enable end-to-end operation, improving efficiency, safety and supporting high-frequency, automated charging in closed and high-intensity environments.

Increasing adoption of microgrid-based charging systems. A microgrid is a localized power system that can operate independently or alongside the main grid, integrating distributed energy sources, storage, and loads. Microgrids are increasingly used to enhance the value of EV charging networks. Charging systems in industrial parks are often integrated with rooftop PV or existing PV and storage, prioritizing local consumption and storing surplus electricity for peak periods. This reduces stress on the external grid and improves power stability and energy efficiency. As of 2024, over 1,500 microgrid systems have been deployed in Chinese mainland and are expected to increase to over 10,000 by 2030.

Evolution of charging infrastructure toward DC and higher-power configurations. As charging demand grows, infrastructure is shifting from AC chargers to DC chargers. DC chargers offer higher efficiency, better power control, and safer operation, making them suitable for frequent, large-scale use. For high-power applications like heavy-duty trucks, ultra-fast DC charging shortens energy replenishment time and improves operational efficiency. Deployment is expanding beyond public fast-charging stations and transport hubs to residential communities and industrial parks.

Overseas expansion of the Chinese mainland's charging network companies. The increasing penetration of EV and the expansion of public charging networks overseas create opportunities for Chinese charging network companies. Leveraging their experience in large-scale deployment, multi-scenario operations, and system integration, Chinese companies are exporting products, platforms, and operational capabilities through project delivery, partnerships, and network operations.

Competitive Landscape of the Chinese Mainland's EV Charging Network Industry

The EV charging network market is highly competitive. The Company is one of the few integrated enterprises in the industry that covers both charging network operation services and the sale of charging equipment.

For charging network operators, key operating metrics include total annual charging volume, the number of public charging terminals, total charging capacity in operation and the number of authorized patents obtained, which reflect charging service provision capacity, network coverage and scalability, load-carrying and dispatch capability, and technological R&D capability, respectively. Specifically, operators with a larger installed base of DC charging terminals typically demonstrate advantages in high-power access, grid coordination and charging dispatch, enabling them to more effectively serve public fast-charging, high-frequency charging and key transportation scenarios, thereby improving station utilization and overall operating efficiency.

In terms of revenue from charging network operation services in 2024, the Company is the largest EV charging network operator in the Chinese mainland. The tables below present the competitive landscape of the Chinese mainland's EV charging network operators and the market share of TELD by different operating metrics.

Competitive landscape of the Chinese mainland's EV charging network operators, 2024 (1/2)

Company name	Total annual public charging volume	Public charging terminals	Public DC charging terminals	Total charging capacity in operation	Number of authorized patents obtained
	GWh	*thousand units*	*thousand units*	*GW*	
The Company	**~13,000**	**709**	**424**	**26.0**	**~800**
Company E	~11,000	214	203	15.0	~200
Company F	~10,000	625	225	16.2	~140
Company G	~7,000	587	283	24.7	<50
Company H	~2,000	203	92	6.2	<50

Competitive landscape of the Chinese mainland's EV charging network operators, 2024 (2/2)

Company name	Charging network operating revenue	Market share, in terms of charging network operating revenue
	RMB in millions	*%*
The Company	**~1,610**	**9.3**
Company E	~300	1.7
Company F	~280	1.6
Company G	~170	1.0
Company H	~60	0.3

Source: EVCIPA, CIC

Notes:

(1) The number of public charging terminals, public DC charging terminals, total charging capacity in operation, and the number of authorized patents obtained are all as of December 31, 2024.

(2) Company E is an EV charging network operator founded in the Chinese mainland in 2018. It mainly engages in the provision of operation services with related energy management services. It is an unlisted company.

(3) Company F is an intelligent EV charging equipment provider founded in the Chinese mainland in 2014. In 2025, it spun off its EV charging network operations services through the establishment of a separate entity. It is an unlisted company.

(4) Company G is an EV charging network operator founded in the Chinese mainland in 2016. It mainly engages in the provision of operation services with related energy management services. It is an unlisted company.

(5) Company H is an EV charging network operator founded in the Chinese mainland in 2015. It mainly engages in the provision of operation services with related energy management services. It is an unlisted company.

Market share of TELD, 2024

Total annual public charging volume	Public charging terminals	Public DC charging terminals
23.5%	19.8%	25.8%

Source: EVCIPA, CIC

Among charging equipment providers, sales revenue is commonly used to assess product commercialization capability and market acceptance. In terms of revenue from charging equipment sales in 2024, the Company is the largest EV charging equipment provider in the Chinese mainland. The table below presents the competitive landscape of the Chinese mainland's EV charging equipment providers.

Competitive landscape of the Chinese mainland's EV charging equipment providers, 2024

Company name	Revenue from charging equipment sales	Market share by revenue from charging equipment sales
	RMB million	*%*
The Company	**~3,280**	**14.2%**
Company F	~2,580	11.2%
Company I	~1,050	4.5%
Company J	~810	3.5%
Company K	~650	2.8%

Source: CIC

Notes:

(1) Company I is a power equipment provider founded in the Chinese mainland in 2007. It mainly engages in the sale of charging equipment and the manufacture and R&D of batteries. It is a listed company on the Shenzhen Stock Exchange.

(2) Company J is a new energy technology application service provider founded in the Chinese mainland in 2012. It mainly engages in the sale of charging equipment. It is a listed company on the Shanghai Stock Exchange.

(3) Company K is a charging equipment service provider founded in the Chinese mainland in 1995. It mainly engages in the sale of charging equipment and power equipment. It is a listed company on the Shanghai Stock Exchange.

In terms of charging network operating revenue, charging equipment sales revenue, number of public charging terminals, annual public charging volume, and total charging capacity in operation in 2023, the Company was also the largest EV charging network operator and the largest EV charging equipment provider in the Chinese mainland.

Entry Barriers of China's Charging Network Industry

Scalability and network build-out capability. Leading charging network enterprises continuously expand the number of charging terminals in operation and their service coverage to spread costs across site development, grid connection, equipment procurement, and operations and maintenance. By leveraging a larger user base, they improve station utilization and load dispatch efficiency, thereby creating a reinforcing loop of scale. In contrast, new entrants with limited network scale often face difficulty aggregating demand and require greater time and capital investment to reach a comparable scale.

Technological innovation capability. Rising DC fast-charging penetration and unmanned applications increase demands on ultra-fast charging, bidirectional charging/discharging, system stability, and product intelligence. Leading enterprises innovate to ensure safe, reliable operation and continuously develop advanced automation and monitoring functions. New entrants typically rely on standardized terminals with limited expertise in emerging technologies and scenarios.

Securing key resources. Charging network development is highly dependent on site resources, grid capacity, and local coordination capabilities. Leading enterprises are typically able to secure long-term access to prime sites, grid connection capacity, and policy support. This enables them to priortize deployment in transportation hubs, high-traffic areas, and key scenarios. Later entrants face greater constraints in site selection and grid access.

Supply chain integration capability. Charging network equipment spans charging modules, power devices, structural components, and system assembly, requiring strong manufacturing and supply chain coordination. Leading charging network enterprises ensure reliable supply of key components, product consistency, and cost efficiency through in-house manufacturing or strategic partnerships. New entrants, constrained by smaller procurement scale and less mature supplier relationships, often face higher costs and lower operational stability.

Cost Analysis of the Chinese Mainland's Charging Network Industry

In terms of the cost structure of the charging equipment, charging modules and charging connectors with attached cables are the core components responsible for power conversion and output control. The average price of a charging module declined from approximately RMB0.12 per watt in 2020 to approximately RMB0.10 per watt in 2024. Prices of charging connectors with attached cables decreased from approximately RMB2,100 per set in 2020 to approximately RMB1,300 per set in 2024.

In terms of the cost structure of charging network operation services, labor costs represent the key component of operating expenses. In the Chinese mainland, the average annual salary of professional and technical personnel at enterprises above a designated size increased from approximately RMB112,600 in 2020 to approximately RMB148,000 in 2024.

SOURCE OF THE INDUSTRY INFORMATION

China Insights Consultancy was commissioned to conduct research, provide an analysis of, and to produce a report on the global prefabricated substation and China's EV charging network markets, and other related economic data, at a fee of approximately RMB0.8 million.

China Insights Consultancy undertook both primary and secondary research using a variety of resources. Primary research involved interviewing key industry experts and leading industry participants. Secondary research involved analyzing data from various publicly available data sources, including the National Bureau of Statistics of China, Chinese Government releases, annual reports published by relevant industry participants, industry associations, China Insights Consultancy's own internal database, etc.

The market projections in the commissioned report are based on the following key assumptions: (i) the overall global social, economic, and political environment is expected to maintain a stable trend during the forecast period; (ii) certain key industry drivers are likely to continue to drive market growth during the forecast period; and (iii) there is no extreme force majeure or unforeseen industry regulations in which the market may be affected either dramatically or fundamentally during the forecast period. Our Directors confirm that, after making reasonable enquiries, there is no material adverse change in the market information since the date of the CIC Report which may qualify, contradict or have an impact on the information in this section.