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OVERVIEW

We are a globally leading innovative new energy technology company, primarily engaged in the research, development, production, and sales of EV batteries and ESS batteries. We promote the transition from mobile and stationary fossil energy sources to sustainable alternatives, as well as creating integrated innovative solutions for new applications through advancements in electrification and intelligent technologies. As of December 31, 2024, we had established six major R&D centers and 13 battery manufacturing bases worldwide, with service outlets spanning 64 countries and regions. We have the broadest coverage of customer and end-user base globally. As of December 31, 2024, our EV batteries were installed in over 17 million vehicles, which represents one in every three EVs worldwide, and our ESS batteries were deployed in over 1,700 projects across the globe.

Leveraging decades of extensive experience we have accumulated in the lithium-ion battery industry, we have developed proprietary full-chain and highly efficient R&D capabilities, which lead to our comprehensive and advanced matrix of products and solution. It can be applied to passenger vehicle (PV), commercial vehicle (CV), front-of-the-meter (FTM) energy storage system, behind-the-meter (BTM) energy storage system, and emerging applications such as machinery, vessels, aircraft and others. Our products effectively meet the evolving and diverse needs of global customers.

We actively participate in the development of industry standards and subject matter research in the global lithium-ion battery industry, driving the industry’s sustainable development. By the end of 2024, we are part of over 160 domestic and international industry associations, among others: the Global Battery Alliance, International Renewable Energy Agency, European Battery Alliance, and China Association of Automobile Manufacturers.

Through our relentless efforts, we are highly recognized by global customers and widely acclaimed in the market. Our major accomplishments include:

EV Battery¹

No. 1 Globally for 8 Consecutive Years
37.9%
Global Market Share in 2024

No. 1 in Non-China Markets
In 2024

27.0%
In 2024

ESS Battery²

No. 1 Globally for 4 Consecutive Years
36.5%
Global Market Share in 2024

Select Markets³

72% of the High-End Passenger EV
Market in China

80% of the E-Bus
Market in China

71% of the E-Truck
Market in China

R&D⁴

RMB71.8 Bn
Cumulative R&D Spent from 2015 to 2024

43,354 Patents
Authorized/pending

Products

TECHNOBEST 2024 Award, AUTOBEST
Shenxing battery

The Best Inventions of 2022, TIME Magazine
Qilin battery

Manufacturing

Largest Globally: 676 GWh
Production Capacity, 2024

World’s Only 3 Lighthouse Factories
In the Lithium-ion Battery Industry

DPPB
Single-Cell Failure

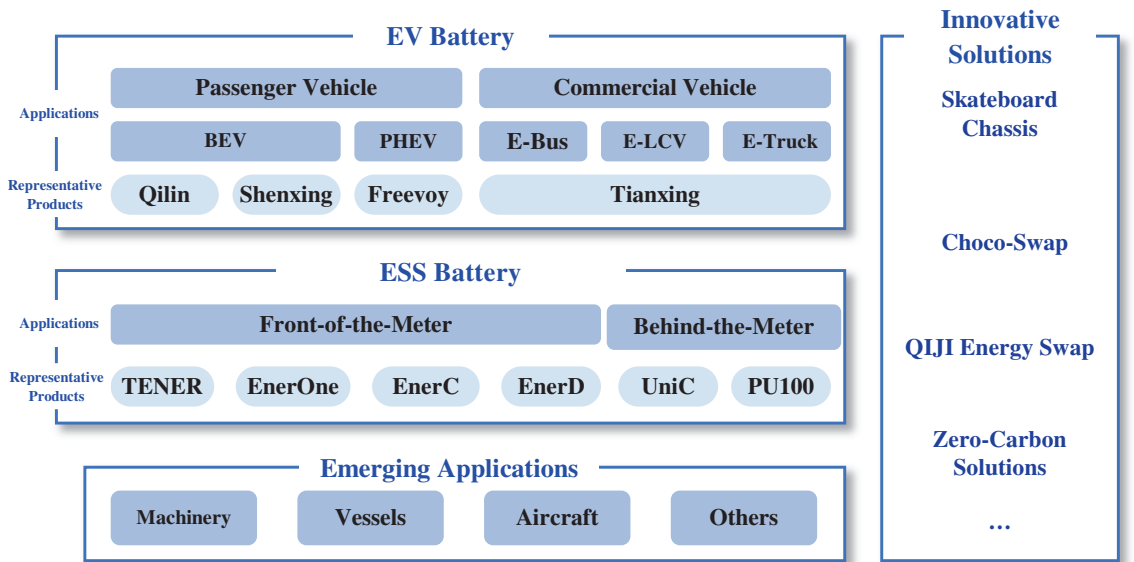
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Notes:

- 1 The rankings and market shares are based on global EV battery usage volume, according to the GGII Report. The eight consecutive years refer to 2017 to 2024.
- 2 The rankings and market shares are based on global ESS battery shipment, according to the GGII Report. The four consecutive years refer to 2021 to 2024.
- 3 High-end passenger EV is defined as a vehicle priced over RMB250,000, according to the GGII Report. Market shares are calculated based on data in 2024.
- 4 The number of patents is as of December 31, 2024.

Our Business

We are dedicated to providing best-in-class EV and ESS batteries and related solutions for global new energy applications, as outlined below:



In addition, we secure the supply of key upstream resources and materials for battery production through battery materials and recycling, and investment, development and operation of mineral resources. For details about each of our business segments, see “— Our Products and Solutions.”

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Our Innovations

Our innovation has three strategic directions: (i) replacing mobile fossil energy sources, (ii) replacing stationary fossil energy sources and (iii) integrated innovation of new applications. We focus our efforts on innovation around battery materials and electro-chemistries, system structures, and green extreme manufacturing, as well as business model innovation. We have consistently launched new technologies, products and business models that drive the industry forward.

- In 2011, we participated in the world’s largest wind and solar energy storage and transmission project — the Zhangbei energy storage project.
- In 2014, we mass-produced the world’s first large prismatic NCM battery cell.
- In 2016, we were the first in the world to apply CTP technology to E-Bus.
- In 2018, we pioneered the mass production of prismatic NCM811 high-nickel batteries.
- In 2019, we were the first in the world to apply CTP technology to PV.
- In 2021, we released the world’s highest energy density sodium-ion battery, and introduced the AB battery system.
- In 2022, we launched the Qilin battery, utilizing 3rd generation CTP technology, achieving the highest volume utilization of 72% globally.
- In April 2023, we unveiled the world’s first condensed battery with a cell level energy density of up to 500 Wh/kg.
- In August 2023, we released the world’s first 4C superfast charging LFP battery, Shenxing.
- In April 2024, we unveiled TENER, the world’s first ESS featuring zero degradation in power and capacity over 5 years, while offering high single container energy capacity of 6.25 MWh.
- In July 2024, we launched the Tianxing series for various CV applications, tailor-made for E-Bus, E-LCV, and E-Truck, effectively addressing key industry pain points of CV, including limited driving range, slow energy replenishment, and rapid battery degradation.
- In October 2024, we launched Freevoy Super Hybrid Battery, the world’s first hybrid vehicle battery to achieve a pure electric range of over 400 km and 4C superfast charging.
- In December 2024, we unveiled the Bedrock Chassis, the world’s first ultra-safe skateboard chassis that has successfully passed the dual extreme safety test.

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Our Global Presence

Our business spans the globe. We adopt a “customer-centric” approach and established various long-term and in-depth strategic partnerships with globally renowned automotive OEMs, ESS integrators, project developers or operators. By the end of 2024, nine out of the top ten global automotive OEMs by EV sales volume are our customers, according to the GGII Report. Our automotive OEM customers include BMW, Mercedes-Benz, Stellantis, Volkswagen, Ford, Toyota, Hyundai, Honda, Volvo, SAIC, Geely, NIO, Li Auto, Yutong, and Xiaomi. Our ESS customers and partners include NextEra, Synergy, Wärtsilä, Excelsior, Jupiter Power, Flexgen, China Energy Group, State Power Investment Corporation, China Huaneng Group, China Huadian Group and China National Petroleum Corporation. We further strengthen our collaboration with global customers through equity investments, JVs, and technology licensing. In 2024, 30.5% of our revenue was generated from overseas markets. As of December 31, 2024, we have established a global network of over 770 after-sales service stations, among which 169 are located overseas, continuously providing high-quality service to our global customers.

We have been expanding our global footprint in response to evolving customer demands. As of December 31, 2024, we operated 13 battery manufacturing bases around the world, including 11 major domestic manufacturing bases located in Ningde (Fujian), Xining (Qinghai), Liyang (Jiangsu), Yibin (Sichuan), Zhaoqing (Guangdong), Shanghai, Xiamen (Fujian), Yichun (Jiangxi), Guiyang (Guizhou), Jining (Shandong), and Luoyang (Henan), and two overseas manufacturing bases — the Thuringia factory in Germany and the Debrecen factory in Hungary. Our manufacturing base in Thuringia, Germany, has become the world’s first battery manufacturer to obtain Volkswagen module certification and the first in Europe to receive Volkswagen cell certification. Furthermore, we are actively preparing and advancing our JV factory with Stellantis N.V. in Spain, and our battery value chain projects in Indonesia.

To actively advance our globalization, we emphasize our efforts on overseas operational support, supply chain expansion, resources and recycling, and international talent acquisition. These efforts aim to create an efficient multinational operational structure.

Our Financial Performance

We have achieved solid and high quality financial performance over the years. For the years ended December 31, 2022, 2023 and 2024, our revenue was RMB328.6 billion, RMB400.9 billion and RMB362.0 billion, respectively. Our revenue decreased by 9.7% from RMB400.9 billion in 2023 to RMB362.0 billion in 2024, mainly due to a reduction in our average selling price in response to decrease in the prices of raw materials, including lithium carbonate, despite increased sales volumes of our EV batteries and ESS batteries. During this period, our profitability continued to improve, with profit for the year consistently increasing. For the years ended December 31, 2022, 2023 and 2024, our profit for the year was RMB33.5 billion, RMB47.3 billion and RMB55.3 billion, respectively, representing a year-on-year growth of 41.5% and 16.8%, respectively. Our net profit margin for the years ended December 31, 2022, 2023 and 2024 was 10.2%, 11.8% and 15.3%, respectively. In the same years, our weighted ROE was 24.7%, 24.3% and 24.7%, respectively.

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We have consistently maintained a robust cash flow position. The net cash flow generated from operating activities for the years ended December 31, 2022, 2023 and 2024, was RMB61.2 billion, RMB92.8 billion, and RMB97.0 billion, respectively.

Our Sustainability Initiatives

We actively promote the United Nations Sustainable Development Goals. As a member of the United Nations Global Compact (“UNGC”), we fully support its ten principles across four key areas: human rights, labor, environment, and anti-corruption. We have established a sustainability governance structure that integrates these principles into our daily operations, ensuring the effective advancement of our sustainability efforts.

Meanwhile, we continuously enhance the transparency of our external communications, conveying our sustainability values and concepts to a broader range of stakeholders. As of the Latest Practicable Date, we had published annual Corporate Social Responsibility and/or ESG reports for seven consecutive years. We conduct regular identification and analysis of material ESG topics, and conduct a review of material topic results of the previous year in accordance with the latest ESG regulations and policies, while also considering external stakeholder focus and industry practices.

We consider climate change and carbon emissions as essential factors for our sustainable development. In 2023, we released our “Zero Carbon Strategy” setting clear carbon neutrality goals: achieving carbon neutrality by 2025 in our core operations and by 2035 across the value chain. We continue to enhance our ecosystem and biodiversity protection strategies, formulating and publishing our “Biodiversity Commitment” and “Forest Resource Conservation Commitment.” Adhering to a philosophy of seamlessly integrating business development with social responsibility, we actively participate in community development, educational support, disaster relief, environmental protection, and social welfare initiatives. Through dedicated charitable funds and financial donations, we fulfill our corporate citizenship responsibilities and promote social value cocreation.

We continuously enhance our ESG practice and have achieved steady improvement of ESG rating in recent years. We successfully maintain industry-wide leading positions in various mainstream ESG ratings.

COMPETITIVE STRENGTHS

Competitive Full-Chain R&D Moat Built on Our Solid Experience and Proven Methodology

Lithium-ion batteries are critical components in the global transition to clean energy and low-carbon society. Developing and mass-producing lithium-ion batteries that combine at the same time outstanding safety, performance, high quality, and cost effectiveness are extremely challenging, which requires a comprehensive understanding and application of multiple

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disciplines such as electrochemistry, thermodynamics, and molecular dynamics, as well as fundamental theories across micro, meso, and macro scales, in addition to strong technical design, manufacturing, and quality control capabilities.

With more than 25 years in the lithium-ion battery industry, our team has accumulated extensive experience in developing, designing and manufacturing lithium-ion batteries. As a result, we cultivated a unique R&D methodology, and through continuous upgrades and optimization, we have been pioneering large-scale commercialization of EV and ESS batteries. From 2015 to 2024, our cumulative R&D expenses amounted to RMB71.8 billion. As of December 31, 2024, our R&D team comprised more than 20,000 professionals. We built a robust full-chain innovation system and self-developed highly efficient and smart R&D platforms. Leveraging extensive, multi-scenario customer and end-user feedback, we consistently enhance our R&D and product design capabilities, ultimately creating a deep and competitive R&D moat.

Proprietary Full-Chain R&D

We possess proprietary full-chain R&D capabilities, from battery material, cell, module, system to downstream applications. Our R&D covers the entire process and full product life cycle from battery material R&D, product development, process and engineering design, testing and analysis, intelligent manufacturing, to recycling. These further enable us to have systems thinking, which allows us to deeply understand the interconnections of various elements during different stages, facilitating efficient innovation and product development. At the same time, our proprietary full-chain R&D capabilities allow us to have higher resilience and better control over our business operation, and to avoid over-reliance on any specific resources.

We seamlessly incorporate three key elements — safety, quality, and cost — into our R&D and manufacturing process, ensuring better delivery of our products. Regarding safety, we conduct R&D and design by simulating full-scenario application conditions and have a unique safety and reliability management system based on mechanism research, system safety technology, system reliability analysis technology, and model quantization technology. Through our extreme manufacturing process, we have reduced the failure rate of battery cells from DPPM to DPPB. To ensure product quality, we have set over 7,000 quality control points at critical production stages and implemented robust evaluation mechanisms. As to cost management, we apply proprietary PSL to significantly increase production pace, improve production yield, increase productivity per capita and reduces overall unit costs.

Highly Efficient and Smart Platforms

Built on massive data and advanced algorithms, we conduct modelling simulation by utilizing multi-physics, multi-scale, and multi-parameter process, consequently enhancing our R&D efficiency through a digital and smart R&D approach.

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We self-developed material high-throughput computing platform, smart battery cell design platform, and smart process design platform, among others. We employ high-throughput computing, multi-scale simulations, and other cutting-edge technologies, and through material screening, decoding and transformation, we efficiently explore electro-chemistries with better performance, reliability and cost-effectiveness. From experimental reverse design to predictive forward design, we integrate technical advantages across battery materials, design, processes, and equipment, which allows us to substantially reduce cell design period compared to conventional manual methods. We digitize our entire manufacturing process, from development of new process to mass production, which deepens the synergy between process design and intelligent manufacturing, optimizes product development pathways, and enables our real-time adjustments.

Extensive Customer Feedback from Diversified Applications

Based on our robust collaboration with our extensive customer base, we can gather feedback on our products from various applications and gain valuable insights into the experiences and pain points of end-users. We consistently integrate these real-world feedback with our R&D lab data, allowing us to effectively enhance product performance and optimize our solutions, and further form a positive self-reinforcing loop.

Comprehensive and Advanced Product Matrix, Continuously Trendsetting the Industry

We have deep insights into industry trends, and multiple times preemptively identified the best technology direction and launched innovative products. Since inception, we pioneered the high-capacity cells for CV, high-nickel NCM batteries, and module-free CTP designs, successfully achieving large-scale commercialization of these products. In addition, we have introduced innovative products such as sodium-ion batteries with high energy density, M3P batteries, and condensed batteries, continually driving industry development. As a result, we cultivated the most comprehensive and advanced product matrix in the industry, leading with performance characteristics such as high energy density, long life cycle, fast charge rates, wide operating temperature range, and outstanding safety. All of these contribute to our products’ wide adaptability to PV, CV, ESS, and new applications, providing optimal solutions for customers and end-users.

In the PV sector, our Qilin battery is the industry’s first NCM battery achieving 5C superfast charging and being capable of delivering a driving range exceeding 1,000 km. It was named one of TIME Magazine’s Best Inventions of 2022 and was awarded the title of Most Innovative Automotive Supplier “Alternative Powertrains” by the Center of Automotive Management in Germany. Our Shenxing battery is the world’s first LFP battery to achieve 4C superfast charging, earning the 2024 TECHNOBEST Award from AUTOBEST. Our Freevoy battery is the world’s first hybrid vehicle battery capable of exceeding 400 km of pure electric range while supporting 4C superfast charging. In the CV sector, our Tianxing battery series is tailored for E-Bus, E-LCV and E-Truck, effectively addressing sector pain points such as range anxiety, slow charging, and rapid battery degradation. In the ESS sector, our TENER system

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is the world’s first ESS with zero degradation in power and capacity over 5 years, achieving single container energy capacity up to 6.25 MWh while offering outstanding safety, long life cycle, and high integration advantages.

As a result, we preemptively and systematically capitalize on market opportunities and secure a leading position across various markets. We have maintained the No. 1 global market share in EV batteries for eight consecutive years, while our ESS batteries have held the top position for three consecutive years. In select markets, including the high-end PV market with demanding performance standards and significant technical challenges, as well as the high-usage CV markets, we are highly recognized by our customers and achieve even greater market shares through our exceptional products.

Multi-Dimensional Expansion Creating a Dominant Position in Emerging Areas

Leveraging our deep understanding of and continuous innovation in EV and ESS batteries, we proactively identify and seize emerging market opportunities. We tailor products and solutions that meet the performance requirements of new application scenarios, pioneering the expansion of electrification into areas such as machinery, vessels, aircraft and others. At the same time, we have successively launched innovative solutions such as Skateboard Chassis, Choco-Swap and QIJI Energy Swap, empowering our customers, expanding our applications, enhancing the end-user experience, and promoting comprehensive electrification.

We are the first battery company to receive recognition and certification from the China Classification Society (CCS) under the “Guidelines for the Inspection of Pure Electric Powered Ships.” We established a wholly-owned subsidiary, CAES, which has become the world’s first solution provider for electric vessels covering their entire life cycles. As of December 31, 2024, over 700 electric vessels globally had been equipped with our batteries. In 2023, we launched our condensed battery with a cell energy density of up to 500 Wh/kg, which simultaneously achieves high energy density and excellent safety, opening up new electrification possibilities for passenger aircraft.

Our Skateboard chassis features body-chassis separation, high integration, and open architecture, promoting more modular, bespoke, and intelligent automobile designs, and significantly improving development efficiency for our automotive customers, shortening their new models R&D cycles. In addition, our Bedrock chassis was the first in the world to pass the dual extreme safety test of “highest speed plus strongest impact” by the Automotive Safety Technology Center of China Automotive Engineering Research Institute Co., Ltd. (中國汽研汽車安全技術中心). Our Choco-Swap offers high adaptability and flexibility to various PV models, effectively improving energy replenishment efficiency and enhancing the end-user experience through fast battery swapping. Meanwhile, our QIJI Energy Swap system delivers a more environment friendly, economical, and efficient energy replenishment solution for the E-Truck sector.

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Pioneering Zero Carbon Practice, Building Zero Carbon Ecosystem

Pioneering Zero Carbon Practice

In 2023, we launched our “Zero Carbon Strategy,” establishing clear carbon neutrality goals: achieving carbon neutrality by 2025 in our core operations and by 2035 across the value chain. To fully advance the achievement of zero-carbon goals, we are implementing energy-saving upgrades and renewable energy utilization across our manufacturing bases. We actively promote the construction of zero-carbon factories, develop renewable energy projects, and increase the proportion of green electricity usage. As of December 31, 2024, we had 9 certified Zero Carbon Factories and had obtained utility-scale renewable energy capacity quota totaling 4.8 GW. Furthermore, we have established a self-sustaining closed loop consisting of battery production, usage, cascade utilization, and recycling. In 2024, we had recycled approximately 128,700 tons of retired batteries and wasted materials, from which approximately 17,100 tons of lithium compounds was recycled. Our global recycling network has covered 60 suppliers in 26 countries and regions.

We also collaborate with key suppliers to comprehensively reduce carbon emissions throughout the supply chain. We utilize the CREDIT value chain sustainability auditing program to conduct sustainable management reviews of our suppliers, while relying on the CATL Carbon Chain Management System to expand our product carbon footprint database. As of December 31, 2024, we have completed the collection and import of carbon footprint data for over 300 raw materials. In 2024, the carbon footprint of our anode and cathode materials was reduced by 18.62% compared to the level in 2023.

Building Zero Carbon Ecosystem

The global trend of carbon reduction presents significant market opportunities; however, building a zero-carbon society is exceedingly challenging, and reliable solutions are yet to be developed. Leveraging our product and business advantages, coupled with our own carbon reduction practices, we have launched a series of pilot projects and demonstration initiatives at both the industrial park and city levels, in order to create highly integrated zero-carbon solutions, establish a zero-carbon ecosystem and facilitate the development of a zero-carbon society.

Our leading batteries are critical to the transition toward clean energy and low-carbon society. As of the Latest Practicable Date, we had cumulatively delivered over 1 TWh of battery products, which have been widely adopted in core areas of zero-carbon development, including transportation and electricity. We also provide innovative products and solutions such as battery swapping services, solar-storage-charging-battery inspection system and grid-forming ESS. In addition, we have been developing a low-carbon digital energy cloud platform and an energy management system to facilitate the intelligent interconnection, scheduling, and management of green energy. By doing so, we are able to provide a zero-carbon solution that comprehensively covers the needs of generation, grid, load, and storage of electricity.

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We signed strategic corporation agreements with various enterprises, such as Conch Group, Xiamen Road & Bridge, and Nanjing Iron and Steel, to construct zero-carbon industrial park level projects. We also launched zero-carbon pilot projects in provinces and cities like Hainan and Tianjin. By implementing and promoting sophisticated system engineering initiatives, we advance the infrastructure underlying a zero-carbon society.

Leading Global Footprint with Unparalleled Capabilities

We have the largest lithium-ion battery production capacity in the world, with an industry-leading global footprint. Our production capacity reached 676 GWh in 2024. We have established the Thuringia factory in Germany, and are actively preparing and advancing our plant in Hungary, our JV factory with Stellantis in Spain, and our battery value chain projects in Indonesia.

Lithium-ion battery companies face numerous challenges in overseas operations, such as unfamiliarity with local markets, high barriers to customer relationships, elevated construction costs, differences in legal systems and regulatory policies, cultural differences, and inadequate operational support systems. We manage to continue to overcome these challenges, ensuring stable operations at our overseas factories, thus enhancing our global presence. Our leading globalization capabilities primarily stem from the following unique advantages:

- *Extensive Customer Base and Abundant Orders:* We engage in comprehensive and deep cooperation with overseas customers. By actively meeting their diverse requirements through self-built capacity, JVs, technology licensing and the LRS (license, royalty, service) model, we have attracted long-term, abundant, and stable backlog of overseas orders.
- *Valuable Overseas Construction and Operational Experience:* We began constructing our Germany factory back in 2018, which commenced operations in 2022. Through years of continuous exploration, we have accumulated invaluable experiences in shortening construction cycles, enhancing production line efficiency, meeting environmental and sustainability requirements, conducting local recruitment and training, establishing ancillary supply chains, and managing market development and customer relationships.
- *Purpose-designed Factories and Production Lines:* To address the challenges of slow construction and high costs associated with overseas factories, we have developed small, standardized and modular facilities specifically for overseas manufacturing bases, effectively shortening construction time. Simultaneously, to lower reconfiguration costs and optimize efficiency, we developed highly intelligent reconfigurable production lines, capable of reducing configuration switching time and significantly enhancing production line flexibility and efficiency. In addition, by elevating automation levels, we further increased productivity per worker. We continuously refine these designs and apply them in subsequent overseas factory constructions, significantly enhancing our investment returns.

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- *Comprehensive Resource Support:* We have established a global support system encompassing sales, after-sales services, and logistics. We operate 169 service stations across 63 countries and regions overseas, providing global customers with efficient one-stop service through effective business integration. In addition, we have built an international framework for supporting functions. We replicate our domestic expertise abroad, creating a comprehensive system befitting our overseas operations and providing support for the sustainable expansion of our international operations.

These unique advantages stem from our long-term operations and form the foundation for our global expansion, establishing our globalization capability that is difficult to replicate.

GROWTH STRATEGIES

Guided by the three strategic directions and four innovative systems, we drive the development of our business. We are committed to battery technology innovation and large-scale commercial deployment, continuously expanding the applications of EV and ESS batteries. Through integrated innovation and zero-carbon solutions, we aim to reduce society’s dependence on fossil fuels and contribute to global sustainable development.

Our Three Strategic Directions

- Centering around *Electrochemical Energy Storage + Renewable Energy Generation*, we focus on replacing stationary fossil fuels and reducing reliance on fossil fuel power generation.
- Centering around *EV Battery + NEV*, we aim to facilitate the replacement of mobile fossil fuels, thereby eliminating dependence on petroleum in the transportation sector.
- Centering around *Electrification + Intelligentization*, we promote integrated innovation for new energy applications, providing sustainable, accessible, and reliable energy sources for various industries, and fostering regional zero-carbon ecosystem and green low-carbon transformations across multiple fields.

Our Four Innovative Systems

Innovation is in our DNA and serves as the driving force behind our sustainable development. Guided by our three strategic directions, we have established four innovative systems: “Battery Materials and Electro-chemistries Innovation,” “System Structure Innovation,” “Green Extreme Manufacturing Innovation,” and “Business Model Innovation” to support our business development. We promote the four innovative systems through “open innovation.” We will implement digitalization and intelligent technologies across all stages including R&D, manufacturing, sales, and management, while enhancing the efficiencies in battery material system innovation, cell development and design, and manufacturing process

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design. This will facilitate the efficient transformation of scientific advancements into technology, products, and ultimately, successful commercialization and high-quality mass production, ensuring our continued market leadership.

- *Battery Materials and Electro-chemistries Innovation:* We will continue to enhance intelligent development platforms, such as the high-throughput materials integration computing platform. Leveraging advanced algorithms and computing power, we utilize validated platform technologies to conduct atomic-level simulations and design modeling of materials. By identifying fundamental characteristics of key materials and efficiently screening promising material systems, we drive comprehensive innovation in materials and material systems. This accelerates battery design and ensures that we maintain foresight and leadership in the development of new products and technologies.
- *System Structure Innovation:* We will optimize the system structure design of battery packs and chassis integration by leveraging digitized design tools and methodologies, while continuing to iterate and upgrade our existing CTP and CTC technologies. This will improve the integration our battery systems and our skateboard chassis products, resulting in more efficient, safer, and cost-effective products. These innovations effectively facilitate the development of EV and enhance the key performance of EV and ESS.
- *Green Extreme Manufacturing Innovation:* We are dedicated to establishing a green and efficient extreme manufacturing system to ensure the safety and reliability of battery products throughout their life cycle. Through continuous R&D investment and experience accumulation, we have developed and implemented the PSL across our manufacturing bases, achieving an industry-leading single-unit cell failure rate at the DPPB level. Looking ahead, we will leverage technologies such as big data, cloud computing, digital twins, and 3D printing to enhance our industrial digitalization capabilities, optimize production processes, improve product quality and productivity, and create high-quality delivery capabilities at the TWh scale.
- *Business Model Innovation:* We will fully leverage the advantages of our existing business, and continue to expand into new application scenarios, including machinery, vessels, aircraft and others. We successfully launched Choco-Swap, QIJI Energy Swap and various other innovative solutions. At the same time, leveraging our extensive experience in carbon reduction across operations and the value chain, we will use regional pilot projects as entry points to actively promote the implementation of zero-carbon technology products and solutions. This will support the development of regional zero-carbon ecosystems and drive green, low-carbon transitions across various sectors.

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We believe that achieving a global green and low-carbon transition requires communal dedications. We will continue to uphold the spirit of open innovation and implement the four innovative systems and the complementary strengths of internal and external innovation capabilities. By doing so, we will help achieve the efficient allocation of resources across society, drive technological progress together with other forces, and ultimately yield shared benefits and mutual success for all.

OUR PRODUCTS AND SOLUTIONS

We are primarily engaged in the R&D, production, and sales of EV batteries and ESS batteries, with a focus on electrification and intelligence to drive integrated innovation in market applications. Our core technological advantages and sustainable R&D capabilities span across multiple sectors of the industry chain such as battery materials, battery systems, and battery recycling, allowing us to establish a comprehensive and well-developed production and service system.

Our main products include EV batteries, ESS batteries and related battery materials. Based on our solid experience, proven methodology, full-chain R&D capabilities, and other underlying factors, our products have maintained a leading position in the industry for a long time. With 25 years of specialization in the lithium-ion battery industry, our team has accumulated extensive R&D, design and manufacturing expertise, which has led to our distinct innovation methodology. Through continuous iteration and optimization, we have pioneered the large-scale commercialization of EV batteries and ESS batteries. We comprehensively master multidisciplinary fundamentals including electrochemistry, thermodynamics, and molecular dynamics, along with integrated application capabilities across micro, meso, and macro scales. We excel in process engineering, manufacturing technology, and quality control, while maintaining an innovative R&D ecosystem that features a full-chain innovation system, highly efficient and smart R&D platforms, and massive customer and end-user data feedback covering multiple scenarios.

For material and material system, leveraging the intelligent R&D platform independently developed by us based on years of experience, we can achieve efficient material screening, upgrade the performance of our products applying existing chemistries, and pioneer the launch of emerging chemistries. For the system structure, we have taken the lead in realizing efficient integration of battery systems through CTP technology, and introduced CTC technology to further enhance the efficiency of integrating batteries into the chassis. For green extreme manufacturing, we utilize big data, cloud computing, digital twin simulation, 3D printing, and other technologies to improve digital capabilities, optimize production processes, increase production efficiency, enhance product quality, and achieve the industry-leading DPPB level of single-cell failure rate. The full-chain R&D barriers and continuous innovation capabilities have enabled us to build the most comprehensive and advanced product portfolio, delivering outstanding performance, such as high energy density, long life cycle, high charging rate, wide operating temperate range, and superior safety.

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EV Batteries

Our EV battery products include battery cells, battery modules/racks, and battery packs, offering products with a diverse range of chemistry that cover different energy density ranges. These products include, among others, LFP batteries, high-voltage mid-nickel ternary batteries, high-nickel ternary batteries, sodium-ion batteries, M3P batteries, and condensed batteries. Our EV battery products are designed to meet a variety of functional requirements, such as fast charging, long life cycle, long driving range, high safety, and wide operating temperature range.

PV Applications

We provide a variety of products based on the diverse needs of customers in the PV application scenario.

To meet the diverse needs of PV users regarding charging speed, range, and power, we have introduced a series of products represented by the Qilin battery and Shenxing battery, the key characteristics of which are set forth below:

- The Qilin battery utilizes the CTP 3.0 technology to integrate cells of high-nickel ternary battery or other chemistries, featuring high energy density, superior fast-charging performance, and excellent safety. Qilin battery offers an energy density of up to 255 Wh/kg and achieves a maximum 5C fast-charging capability. It is capable of delivering a range exceeding 1,000 km with one charge. We have launched several versions of the Qilin battery, including high power, long driving range, superfast charging, and all-around performance.
- The Shenxing battery is the world’s first LFP battery to achieve 4C fast charging. It features excellent fast-charging performance, strong low-temperature performance, and cost-effectiveness. We have launched several versions for the Shenxing battery, including superfast charging, long life cycle, all-around performance, and the Plus version. Its energy density can reach up to 205 Wh/kg.

To meet the needs of PHEV users for extended electric range, low-temperature performance, and fast energy replenishment, we have introduced a series of products represented by the Freevoy battery, the key characteristics of which are set forth below:

- The Freevoy battery is the world’s first hybrid battery to offer over 400 km of pure electric range combined with 4C fast charging. It features long pure-electric driving range, excellent low-temperature performance, and superior fast-charging capabilities. We have launched several versions for the Freevoy battery, including the “Lithium and Sodium AB” and “High Performance”.

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CV Applications

To meet customer demands for stability, life cycle, and high-frequency usage, we have launched a series of products represented by our Tianxing battery, precisely tailored for CV applications, such as E-Bus, E-LCV, and E-Truck. The key characteristics of our Tianxing battery are set forth below:

- For time-sensitive scenarios such as logistics and platform-based order fulfillment, we offer Tianxing L — Fast Charge and Tianxing L — Long Range, with a design lifespan of up to eight years and 800,000 km. For E-Bus, we offer Tianxing Bus version with a design lifespan of up to 15 years and 1.5 million km. In addition, for E-Truck with a design lifespan of up to 15 years and 3 million km, our Tianxing battery for heavy CV maintains reliability and stability even in harsh environments like mines and construction sites.

Emerging Applications

Beyond the application mentioned above, our EV batteries are also expanding into emerging application scenarios such as machinery, vessels, aircraft and others.

In addition, we continuously innovate and conduct R&D in select sectors such as power tools and electric two-wheelers, while also offering innovative medium-sized smart battery products.

Innovative Solutions

Skateboard Chassis

Our skateboard chassis products are characterized by body-chassis separation, high level of integration, and an open structure: (i) body-chassis separation: separating the vehicle body from the chassis allows automotive OEMs to flexibly develop a variety of vehicle models on the same chassis architecture, shortening their new model R&D cycle, significantly reducing their initial R&D costs; (ii) high level of integration: we utilize CTC technology, highly integrating key components such as the battery, motor, inverter, steer, brake, and suspension. This improves space utilization and optimizes the overall vehicle structure; and (iii) open structure: our skateboard chassis features standardized connection interfaces and an open software framework, facilitating customized development for automotive OEM partners and promoting joint innovation and resource sharing. In addition, our ultra-safe Bedrock Chassis was the first in the world to pass the dual extreme safety test of “highest speed plus strongest impact” by the Automotive Safety Technology Center of China Automotive Engineering Research Institute Co., Ltd..

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Battery Swapping Solutions

We have launched the Choco-Swap and QIJI Energy Swap solutions to address the specific application scenarios and end-user needs of PV and CV, respectively. We establish our battery swapping network through self-construction, co-construction with third parties, joint ventures and other means, leasing or selling standardized battery products, and providing battery swapping services. The Choco-Swap offers standardization, high compatibility, and convenience, adopted a wide range of vehicle models with strong flexibility. Through quick battery swapping, it significantly enhances energy replenishment efficiency and the overall experience for PV end-users. The QIJI Energy Swap solution consists of elements such as swappable batteries, swapping stations, and a cloud platform, providing a more environment friendly, economical, and efficient one-stop energy replenishment solution for the E-Truck sector.

ESS Batteries

Our ESS batteries encompass battery cells, battery racks, containers, and relevant systems, primarily utilizing LFP chemistries. Our ESS batteries are highly integrated, safe, and flexible, effectively addressing industry pain points, such as high costs and large space requirements. Based on the diverse application scenarios covering the power generation, grid, and load, as well as the entire full life cycle economics of our products, we have developed multiple specialized battery cells, such as 280Ah, 306Ah, 314Ah and 587Ah, and feature ultra-long life cycle, high safety, and wide operating temperature range.

Our ESS batteries are widely used in various FTM and BTM applications, including but not limited utility energy storage, industrial and commercial storage and data centers.

- **FTM Applications:** Primarily include large-scale ESS projects on the power supply side, grid side, and other similar applications. We have launched the EnerOne and EnerOne Plus outdoor liquid-cooled battery products, as well as the EnerC, EnerC Plus, EnerD, and EnerX liquid-cooled battery containers designed for all-climate. Furthermore, we have introduced the TENER system, which achieves zero power and capacity degradation over five years with each unit boasting an energy capacity of up to 6.25 MWh per container. It also offers safety, long life cycle, and high integration, meeting users’ needs for energy storage safety and cost-effectiveness.
- **BTM Applications:** Primarily include user-side ESS projects, including commercial and industrial energy storage and data center storage applications. Our products cover the full range of scenarios from low-voltage and medium-voltage to high-voltage platforms. Among them, the UniC series products feature long life cycle, simplified operation and maintenance, and low energy consumption cost, making them suitable for diverse industrial and commercial energy storage applications. The PU100 product offers high safety, high power, and easy maintenance, catering to the energy management needs of data centers.

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Our EV batteries and ESS batteries share the same electrochemistry principles basically and are also similar in terms of system structure and manufacturing process. However, in order to adapt to the needs of different downstream application scenarios, EV batteries and ESS batteries have gradually developed different characteristics in terms of performance indicators. As of the Latest Practicable Date, the main indicators and application fields of our EV batteries and ESS batteries are as follows:

Items	Major downstream applications	Cathode material	Energy density at cell level (Wh/kg)	Life cycle (times)	Safety standards
EV Batteries . .	PV, CV, vessels,	Ternary materials	220-310	2,000-6,000	PV and CV: in compliance with GB38031, GB38032, UN38.3, ECER100.3 and other standards; electric vessels: in compliance with the Rules for Ships Applying Battery as a Power (《船舶應用電池動力規範》), UN38.3 and other standards; electric two-wheelers: in compliance with GB/T36972, UN38.3 and other standards
	electric two-wheelers, etc.	LFP materials	180-200	4,000-10,000	
ESS Batteries . .	ESS, industrial and commercial energy storage, residential energy storage, portable energy storage, etc.	Primarily LFP materials	140-200	2,000-15,000	ESS: in compliance with GB/T36276, UN38.3, UL9540A, UL1973, IEC62619 and other standards; industrial and commercial energy storage: in compliance with GB31241 and other standards; residential energy storage: in compliance with GB31241 and other standards; portable energy storage: in compliance with GB31241 and other standards

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During the Track Record Period, the sales volume, revenue, average sales price, and gross profit margin for our EV batteries and ESS batteries are set forth in the table below:

For the year ended December 31, 2022				
Items	Sales volume	Revenue	Average sales price	Gross profit margin
	(GWh)	(RMB in thousand)	(RMB/Wh)	
EV batteries	242	236,593,497	0.98	14.1%
ESS batteries	47	44,980,277	0.96	14.0%

For the year ended December 31, 2023				
Items	Sales volume	Revenue	Average sales price	Gross profit margin
	(GWh)	(RMB in thousand)	(RMB/Wh)	
EV batteries	321	285,252,917	0.89	18.1%
ESS batteries	69	59,900,522	0.87	18.7%

For the year ended December 31, 2024				
Items	Sales volume	Revenue	Average sales price	Gross profit margin
	(GWh)	(RMB in thousand)	(RMB/Wh)	
EV batteries	381	253,041,337	0.66	23.9%
ESS batteries	93	57,290,460	0.62	26.8%

Battery Material and Recycling

Our battery material products primarily include lithium compounds, precursors, and cathode materials. We also process nickel, cobalt, manganese, lithium, and other materials from used batteries through recycling, producing materials needed for lithium-ion battery manufacturing, which are used for our own battery manufacturing or sold externally for revenue generation. In addition, we channel the collected metal materials for third-party recycling, enabling the effective circular utilization of key metal resources required for battery production. Our Company is continuously expanding recycling channels globally, utilizing advanced technologies to recycle used lithium-ion batteries and production waste, on one hand, to reduce the impact of raw material shortages or supply fluctuations on our production, on the other hand, to ensure a green and low-carbon supply chain, helping us to achieve our zero-carbon goals.

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In addition to recycling waste generated during the battery manufacturing process, we also collect used batteries from recycling sites and partners. We collaborate with customers to create a closed-loop ecosystem of “battery production - usage - cascade utilization - recycling and resource regeneration.” We have established recycling bases globally and formed an extensive, large-scale recycling network to collect retired batteries from recycling outlets and partners. As of December 31, 2024, we had an annual waste battery processing capacity of 270,000 tons, with a nickel, cobalt, and manganese recovery rate of up to 99.6%, and with a lithium recovery rate of up to 93.8%. In 2024, we recycled approximately 128,700 tons of lithium-ion batteries and related waste materials, from which we regenerated approximately 17,100 tons of lithium salts. After recovering metal resources from used batteries and production waste, the remaining valuable materials can be sold externally for revenue generation. Other solid waste is collected and classified, then entrusted to third parties for safe disposal or comprehensive utilization. Hazardous waste is handled by qualified disposal units for safe treatment or recycling.

Battery Mineral Resources

To further secure the supply of key upstream resources and materials required for battery production, we participate in the investment, construction, and operation of battery mineral resources through various means, including self-construction, equity investment, and joint ventures. We have several lithium projects, including Yichun project (Jiangxi) and Snowway Project (Sichuan). We also have a nickel project in Buli, Indonesia, and phosphorus projects in Jiangjiadun, Hubei, and Daping, Guizhou. In addition to processing these minerals in-house, we also collaborate with third party mineral smelting companies or battery material manufacturers. We sell a portion of our mineral resources externally, allowing our partners to further process them into the lithium-ion battery materials we require. During the Track Record Period, the carrying amount of the assets in relation to mineral resources accounted for a small proportion of the total assets of our Group.

The following table sets forth the revenue breakdown by product type for the years indicated:

	For the year ended December 31,					
	2022		2023		2024	
	RMB'000	%	RMB'000	%	RMB'000	%
EV batteries	236,593,497	72.0	285,252,917	71.2	253,041,337	69.9
ESS batteries	44,980,277	13.7	59,900,522	14.9	57,290,460	15.8
Battery materials and recycling	26,031,514	7.9	33,602,284	8.4	28,699,935	7.9
Battery mineral resources . .	4,508,633	1.4	7,734,151	1.9	5,493,003	1.5
Others	16,480,067	5.0	14,427,171	3.6	17,487,819	4.8
Total	328,593,988	100.0	400,917,045	100.0	362,012,554	100.0

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RESEARCH AND DEVELOPMENT

R&D Investment

We continue to invest substantial capital in R&D and innovation. In 2022, 2023 and 2024, our R&D expenses were RMB15.5 billion, RMB18.4 billion and RMB18.6 billion, respectively.

R&D Institution and Team

We have established R&D centers in Ningde (Fujian), Liyang (Jiangsu), Shanghai, Hong Kong, Xiamen (Fujian), and Germany, etc. In addition, we have set up research institutions, such as the 21C Lab, that is dedicated to cutting-edge new energy technologies. These institutions provide strong organizational support for our continuous innovation. As of December 31, 2024, we had more than 20,000 R&D personnel, including over 570 with a doctoral degree and approximately 5,100 with a master’s degree.

R&D System

Based on our understanding of research methodologies and scientific theories including molecular dynamics, electrochemical phase-field methods, and phase diagram theory, and leveraging our extensive experience and technological expertise in the lithium-ion battery industry, we have established a unique R&D and innovation system founded upon first principle thinking. We have established a fully integrated inhouse R&D capability spanning from materials, cells, modules, and systems to downstream applications. It covers the entire product life cycle, from material R&D, product R&D, process and engineering design, testing and analysis, and intelligent manufacturing to recycling and reuse. By leveraging digital and intelligent R&D tools, we have incorporated safety, quality, and cost control into our management process. We have established a readiness assessment and management system for new technologies, defining clear requirements from technological elements to platform integration, and then to product development. This approach allows us to proactively identify and manage risks, controlling their scope and reducing R&D costs. At the same time, it sets clear objectives for each stage, strengthens process management, and improves project success rates.

R&D Framework

We have established a R&D framework primarily based on inhouse R&D, supplemented by external collaborations. In terms of product development, we adopted an integrated project-based model for our core products, overseen by a cross-functional product decision committee. At project inception stage, we comprehensively consider various factors, including subsequent product development, production, raw material procurement, and cost control. Throughout the development process, we conduct timely reviews of potential risks and issues. Further, at critical stages like pilot production and mass production, the product decision committee assesses risks and makes informed decisions.

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Our independently developed intelligent platforms include a material high-throughput computing platform, a smart cell design platform, and a smart process design platform.

In addition, we collaborate with renowned universities and research institutes on joint research and talent development, which has deepened our insights into industry trends and emerging technologies and introduced us new technologies and resources. As a result, our innovation capabilities combine internal and external expertise. We have collaborated with nearly 140 universities and scientific research institutes including Shanghai Jiao Tong University, Xiamen University, Tsinghua University, Huazhong University of Science and Technology, Fudan University, China University of Geosciences, and South China University of Technology. We work on collaborative projects on scientific and technological researches and breakthroughs, with nearly 400 joint projects. We have also set up our post-doctoral center to jointly develop talents in battery raw materials and intelligent manufacturing with well-known universities. Meanwhile, we have established joint industry-university-research innovation platforms with several universities to explore innovative solutions across the entire battery life cycle, including development, manufacturing, and recycling. Together, we are building a sustainable ecosystem for industry development.

INTELLECTUAL PROPERTY

We actively engage in external collaborations on intellectual property. We are a member of WIPO GREEN, an initiative of the World Intellectual Property Organization, and contribute to the application of green energy technologies globally. We leverage our technological capabilities and intellectual property advantages to facilitate the development of the entire industry chain.

As of December 31, 2024, we owned 16,145 registered patents, along with 27,209 patents under application worldwide. Our patents and patent applications encompass various areas, including materials, cells, modules, battery packs, ESS, etc. As of December 31, 2024, we had over 700 software copyrights and over 1,600 registered trademarks. For the management of intellectual property rights in our overseas operations, we have formulated a “Global Patent Guideline” and established an overseas patent portfolio assessment model to protect our innovations and core products. For details about our IP portfolio, see “Appendix VI — Statutory and General Information — 2. Further Information About Our Business — B. Intellectual Property Rights.”

In addition to relying on intellectual property laws and regulations, we also protect our intellectual property through a series of measures, including signing confidentiality agreements and contractual arrangements with employees, suppliers, customers, and other parties. When encountering infringement, we conduct relevant investigations, obtain proper evidence, take appropriate action such as warnings and legal proceedings, to safeguard our legal rights and interests.

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During the Track Record Period and up until the Latest Practicable Date, we were not involved in any legal proceedings in relation to infringement of any intellectual property rights which would have any material adverse impacts on our business, financial condition, and results of operations. See also “Risk Factors — Risks Relating to Our Industry and Business — Our success depends on our ability to protect our intellectual property rights. Intellectual property infringement by and disputes with third parties may adversely affect our business, financial condition and results of operations.”

PRODUCTION

Production Framework

We take customer orders and market conditions into consideration for our production planning. The sales department consolidates information from customer orders, such as the delivery requirements and deadlines. Production plans are then determined based on the production capacity of corresponding manufacturing bases and supply chain situation.

We leverage intelligent and digital methods to enhance production efficiency. By introducing technologies such as machine vision inspection, digital twin simulation, 5G+, and 3D printing, we are driving intelligent manufacturing. This has enabled us to build a production system with multi-dimensional advantages, including production flexibility and efficiency, product quality and consistency, and optimized energy consumption levels.

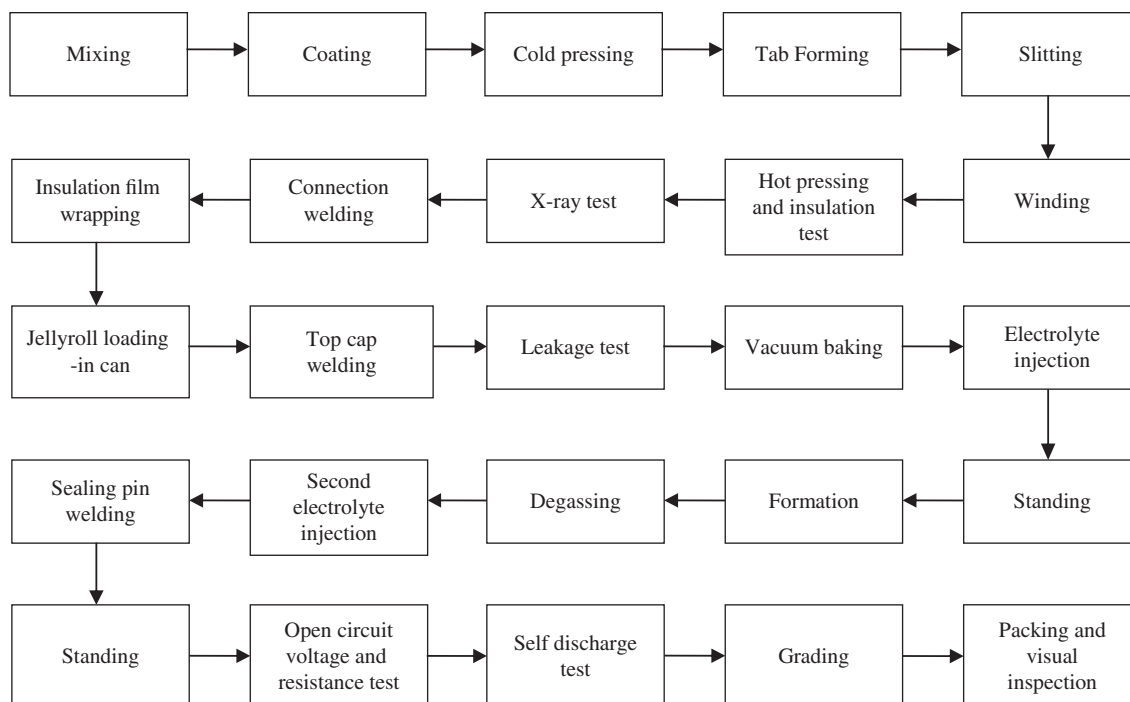
Manufacturing Process

Our manufacturing process primarily includes the manufacturing of battery cells, modules, packs and battery materials.

The complete manufacturing cycle from battery cells, modules, and to packs varies depending on factors such as product types and order volumes, while the cycle from receiving customer orders to product delivery is generally between one to three months.

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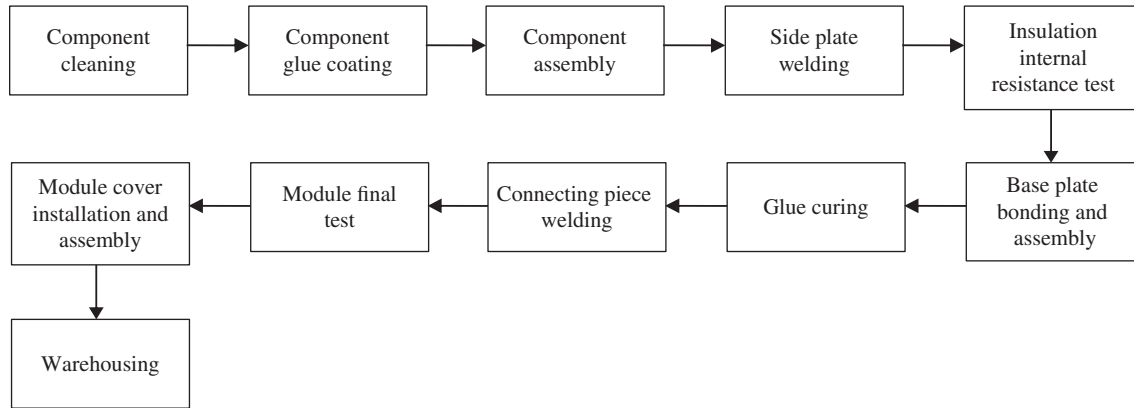
Cell: The manufacturing process of battery cells is complex and requires strict conditions, including cleanliness and humidity control. The following diagram and description illustrate the major manufacturing steps of our cells.



In a strictly controlled manufacturing environment with regulated dust and humidity levels, incoming materials are tested, which will be mixed into slurry according to the specified ratios after passing the test. The cathode is coated onto aluminum foil while the anode is coated onto copper foil to make electrode plates. The electrode plates will then undergo cold pressing, slitting and tab forming. The positive and negative electrodes are separated by a separator membrane and wound into cores of specific sizes and shapes, and then undergo hot pressing, resistance testing, and X-ray test. Soft connection pieces are welded, with insulation film wrapped around the jelly roll. The jelly roll is then inserted into a metal casing, with the top cap welded for leakage testing and vacuum baking. After passing these tests, electrolyte injection and standing processes are carried out, followed by formation, degassing, and sealing pin welding. The batteries will then undergo consistency tests including open circuit voltage, internal resistance, and self-discharge tests, and graded by capacity and packaged for storage.

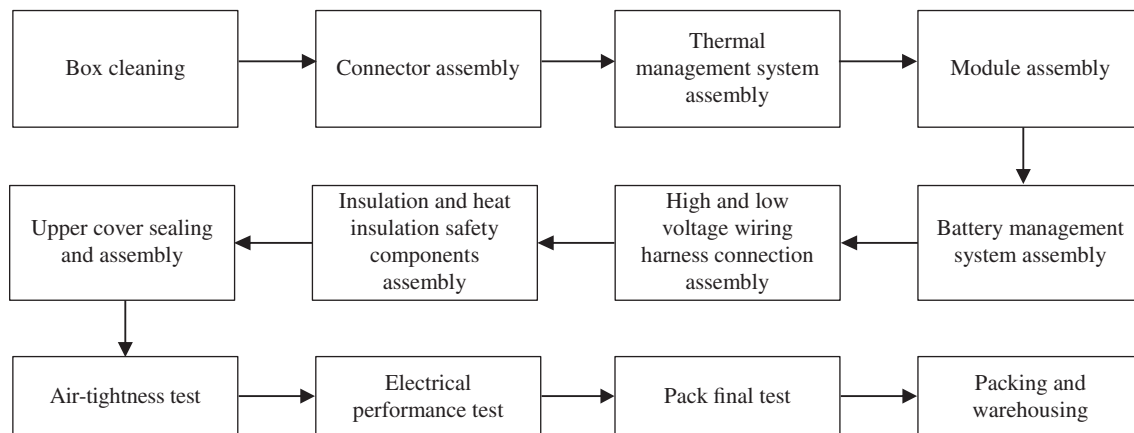
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Modules: A module is composed of multiple battery cells connected in series or parallel, with the number of cells determined by the energy and voltage requirements of the battery. The following diagram and description illustrate the major manufacturing steps of our modules.



Cells, side plates, and end plates for each module are first paired and cleaned, with glue applied to the cells, side plates and end plates for bonding and the cells enclosed by the side plates and end plates for assembly. Next, side plates are welded and tested for insulation resistance, with the bottom plates bonded and assembled, waiting for the glue to cure before the connecting pieces are welded for module testing. After passing the test, the top cover is assembled and the module is put in storage.

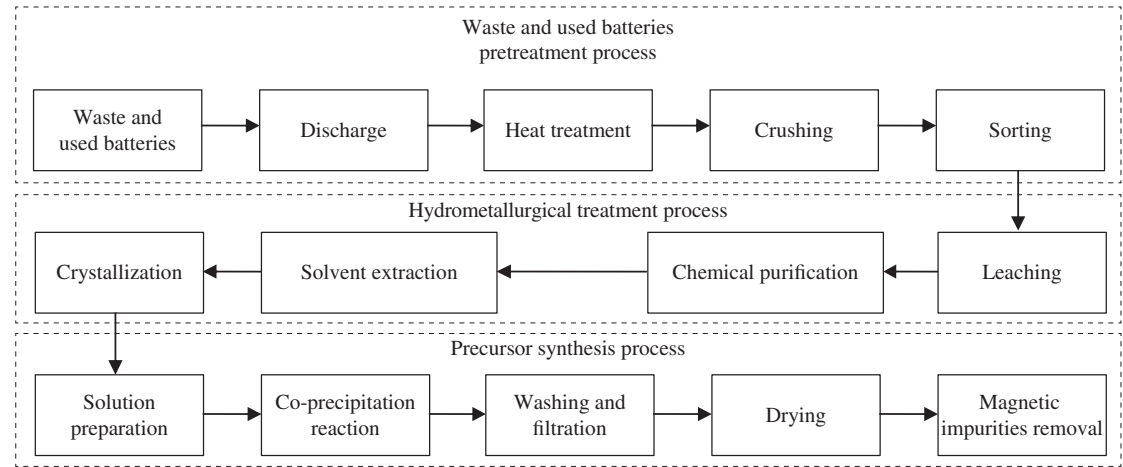
Packs: A pack typically includes a module, battery management system, connectors, and cooling system. The following diagram and description illustrate the major manufacturing steps of our packs.



The box is cleaned, and the required connector harnesses and thermal management system are pre-assembled into the box. The battery modules and battery management system are then separately assembled into the box. The battery modules are then connected one by one using high and low voltage wire harnesses, with safety insulation and thermal components installed, and the boxes sealed by covering them with upper covers to form the battery pack. Air-tightness tests, electrical performance tests, appearance tests are then performed, with the battery packs put in storage after passing those tests.

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Battery Materials and Recycling: We use battery recycling technology to produce lithium-ion battery materials. The main products are precursors, and the production process is divided into three stages: the pretreatment of waste and used batteries, the hydrometallurgical treatment process, and the precursor synthesis process. The following diagram and description illustrate the major manufacturing steps of lithium-ion battery materials.



- **Waste and used batteries pretreatment process:** Discharge the remaining power in the waste batteries to ensure the safety of subsequent processing; neutralize hazardous substances in waste batteries through gradient high-temperature treatment; then separate the positive and negative electrode active powders, negative electrode current collectors, positive electrode current collectors, and positive electrode shells using a crushing and sorting system.
- **Hydrometallurgical treatment process:** Dissolve cobalt, nickel, and manganese compounds from the positive electrode active powders obtained in the pre-treatment process using acid; and remove impurity elements such as iron, calcium, magnesium, copper, and aluminum from the solution while performing necessary separation and purification of nickel, cobalt, and manganese.
- **Precursor synthesis process:** Based on the previous process, the production department formulates solutions according to process requirements, and produces ternary precursor products through reactions, filtration, washing, drying, and impurity separation.

Manufacturing Bases

We possess the world’s largest lithium-ion battery production capacity and an industry-leading global presence. As of December 31, 2024, we had 13 major battery manufacturing bases around the globe, including 11 major domestic manufacturing bases located in Ningde (Fujian), Xining (Qinghai), Liyang (Jiangsu), Yibin (Sichuan), Zhaoqing (Guangdong), Shanghai, Xiamen (Fujian), Yichun (Jiangxi), Guiyang (Guizhou), Jining (Shandong), and

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Luoyang (Henan), and two overseas manufacturing bases — the Thuringia factory in Germany and the Debrecen factory in Hungary. The following table sets forth the production capacity and capacity utilization rate of our production facilities and other related metrics during the periods indicated.

Metrics	For the Year Ended December 31,		
	2022	2023	2024
Production volume (GWh)	325	389	516
Production capacity (GWh)	390	552	676
Capacity utilization rate (%)	83.4	70.5	76.3

Note: Currently, the majority of our production capacity is enabled domestically, while our overseas production capacity remains relatively small and is still in the ramp-up phase of mass production. During the Track Record Period, the vast majority of our production volume was from our domestic manufacturing bases.

The essential information of our 13 major manufacturing bases is set forth below:

Location of manufacturing bases	Site area (m ²)	Products	Land/ Property right
Ningde (Fujian)	5,319,449	EV batteries and ESS batteries	self-owned
Xining (Qinghai)	360,000	ESS batteries	self-owned
Liyang (Jiangsu)	2,226,010	EV batteries and ESS batteries	self-owned
Yibin (Sichuan)	3,479,742	EV batteries and ESS batteries	self-owned
Zhaoqing (Guangdong)	707,671	EV batteries and ESS batteries	self-owned
Shanghai	307,181	EV batteries and ESS batteries	self-owned, leased
Xiamen (Fujian)	2,275,704	EV batteries and ESS batteries	self-owned
Yichun (Jiangxi)	1,119,005	EV batteries and ESS batteries	self-owned
Guiyang (Guizhou)	702,346	EV batteries	self-owned
Jining (Shandong)	785,980	EV batteries and ESS batteries	self-owned
Luoyang (Henan)	316,498	EV batteries	self-owned
Thuringia (Germany)	529,910	EV batteries and ESS batteries	self-owned
Debrecen (Hungary)	1,050,441	EV batteries and ESS batteries	self-owned

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Note:

- (1) The statistical scope for the site area is based on the land certificate obtained as of December 31, 2024. Since our manufacturing base in Shanghai includes both self-owned and leased buildings, the reported area consists of land certificate area for self-owned and gross floor area for leased building.

As of December 31, 2024, three of our factories had been recognized by the World Economic Forum as the only Lighthouse Factories in the global lithium-ion battery industry. Meanwhile, three of our factories have received the “Industrie 4.0 Award” from ROI-EFESO Management Consulting, making us the only company in the global lithium-ion battery industry to receive this prestigious award.

QUALITY CONTROL

We are always highly committed to product quality and safety, considering them vital to our operation. We have established a strict quality management and risk control system that spans across the entire life cycle of product design, procurement, production, sales, usage, and maintenance. Through digital intelligence, such as mechanism simulation and failure analysis, we ensure high standards, comprehensive, and end-to-end product quality and safety.

We have formed a Product Quality and Safety Committee responsible for formulating policies, strategies and objectives, providing top-level guidance for quality and safety of our company. The Quality Department oversees the setup and maintenance of the quality management system, and supervises its effective implementation. During product development, the Quality Department sets up and enforces product testing and validation standards. It is also responsible for controlling product quality throughout the manufacturing process. We have designed our organizational structure for reliability of quality based on three pillars: system construction, management, and technology development. We have innovated management framework for reliability of safety. By integrating reliability and safety into quality management across technology, management and system dimensions, we have built a unique safety and reliability management system based on mechanism research, system safety technology, system reliability analysis technology, and model quantification technology, covering markets, R&D, engineering, supply chain, and operations.

Our quality management system covers all global production bases, ensuring consistency of management standards for product quality. Upon such practice, we can ensure our products constantly meet high quality standards and safety requirements. Leveraging digital intelligence, we manage quality across the entire product life cycle. We have multiple digital systems, including Quality Competitiveness Management Platform, Quality Activity Traceability System, Supply Chain Quality Digitalization System and Reliability Data Center. These can enable us to establish a quality control network which can preemptively identify, prevent and improve product quality. The network provides real-time monitoring and alerting, ensuring robust product quality. As of the Latest Practicable Date, we have set over 7,000 quality control points at critical production stages.

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As a manufacturer of EV batteries and ESS batteries, we comply with the Product Quality Law (《產品質量法》), and the production of our primary products must adhere to relevant national and industry standards, such as GB 38031-2020 Electric Vehicles Traction Battery Safety Requirements (《電動汽車用動力蓄電池安全要求》), among others. We strictly comply with the Product Quality Law (《產品質量法》) and relevant standards to ensure the compliance and safety of our products during the production, sales, and usage processes.

We have also established a comprehensive product recall management mechanism, with internal protocols to govern the recall process. From the beginning of the Track Record Period to the Latest Practicable Date, there have been no incidents of penalties by regulatory authorities for violation of applicable laws and regulation of product or service quality.

RAW MATERIALS AND SUPPLIERS

Our Suppliers

The raw materials that we purchase from our suppliers mainly include cathode, anode, separator and electrolyte. Other materials include copper and aluminum foil, structural parts and electronic parts, among others. Further, cathode includes LFP or ternary material, which involves metals such as lithium, nickel and cobalt as raw materials. Anode are primarily graphite. Cathode materials, anode materials, separators, electrolytes, and copper and aluminum foil are primarily used for cell production. After being connected in series and parallel, the cells are further assembled with structural parts, electronic parts, and other raw materials to manufacture battery modules and packs.

In 2022, 2023 and 2024, our direct material costs were RMB226.7 billion, RMB255.7 billion and RMB202.7 billion, respectively, accounting for 83.8%, 78.9% and 74.1% of cost of sales in the same period, respectively. According to the GGII Report, the four main materials of lithium-ion batteries, i.e. cathode materials, anode materials, separator and electrolyte, account for more than 60% of the direct material cost.

During the Track Record Period, our purchases from the five largest suppliers in each year accounted for 21.3%, 20.3% and 16.3% of our total purchases in the respective year; and purchases from our largest supplier in each year accounted for 5.4%, 5.3% and 6.0% of our total purchases in the respective year. During the Track Record Period, we maintained stable business relationships with our five largest suppliers in each year.

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The following table sets forth the details of our five largest suppliers for each year during the Track Record Period.

Supplier	Background	Procurement amount	Percentage of total procurement	Registered address of headquarters	Scale of operations (registered capital)	Listing status	Products sold to us
		(RMB million)	(%)				
For the year ended December 31, 2022							
Supplier A . . .	A group company in high-tech battery materials industry	18,938.6	5.4	China	RMB484,223,588	Not listed	Cathode material
Supplier B . . .	A lithium-ion battery cathode material supplier, specializing in the research, development, production, and sales of lithium-ion battery cathode materials	16,212.8	4.6	China	RMB757,253,070	Listed	Cathode material
Supplier C . . .	A company engaged in mining, beneficiation, smelting, chemical processing and deep processing	15,590.6	4.4	China	RMB22,946,544,651	Not listed	Cathode material, nickel, cobalt, etc.
Supplier D . . .	A company focusing on the production of lithium-ion battery materials, fine chemicals and specialty chemicals	12,726.8	3.6	China	RMB1,918,823,609	Listed	Electrolyte
Supplier E . . .	A company dedicated to the research, development, production and sales of core materials for lithium-ion batteries	11,199.9	3.2	China	RMB279,242,297	Listed	Cathode material
Total		74,668.8	21.3				

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Supplier	Background	Procurement amount	Percentage of total procurement	Registered address of headquarters	Scale of operations (registered capital)	Listing status	Products sold to us
		(RMB million)	(%)				
For the year ended December 31, 2023							
Supplier B . . .	A lithium-ion battery cathode material supplier, specializing in the research, development, production, and sales of lithium-ion battery cathode materials	15,844.6	5.3	China	RMB757,253,070	Listed	Cathode material
Supplier A . . .	A group company in high-tech battery materials industry	14,174.7	4.7	China	RMB484,223,588	Not listed	Cathode material
Supplier C . . .	A company engaged in mining, beneficiation, smelting, chemical processing and deep processing	11,044.0	3.7	China	RMB22,946,544,651	Not listed	Cathode material, nickel, cobalt, etc.
Supplier F . . .	A company focusing on lithium-ion battery materials, covering cobalt and nickel mining, nonferrous metallurgy and battery materials	10,952.3	3.7	China	RMB70,092,040	Not listed	Cathode materials, nickel, cobalt, etc.
Supplier E . . .	A company dedicated to the research, development, production and sales of core materials for lithium-ion batteries	8,806.1	2.9	China	RMB279,242,297	Listed	Cathode material
Total		60,821.8	20.3				

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Supplier	Background	Procurement amount	Percentage of total procurement	Registered address of headquarters	Scale of operations (registered capital)	Listing status	Products sold to us
		(RMB million)	(%)				
For the year ended December 31, 2024							
Supplier C . . .	A company engaged in mining, beneficiation, smelting, chemical processing and deep processing	16,264.2	6.0	China	RMB22,946,544,651	Not listed	Cathode material, nickel, cobalt, etc.
Supplier B . . .	A lithium-ion battery cathode material supplier, specializing in the research, development, production, and sales of lithium-ion battery cathode materials	9,058.7	3.3	China	RMB757,253,070	Listed	Cathode material
Supplier A . . .	A group company in high-tech battery materials industry	8,219.0	3.0	China	RMB484,223,588	Not listed	Cathode material
Supplier G . . .	A company engaged in nonferrous metal mining and processing	5,781.2	2.1	China	RMB4,319,848,117	Listed	Nickel, cobalt, etc.
Supplier D . . .	A company focusing on the production of lithium-ion battery materials, fine chemicals and specialty chemicals	5,019.1	1.9	China	RMB1,918,823,609	Listed	Electrolyte
Total		44,342.1	16.3				

To the best knowledge of our Directors, none of our Directors, their respective associates or any Shareholder who owns more than 5% of the issued share capital of our Company immediately following the completion of the [REDACTED] had any interest in our five largest suppliers in each year during the Track Record Period.

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Supply Chain Management

We have been striving to build a resilient supply chain adaptable to efficiency, technological innovation, continuous cost reduction and green low-carbon practices. We established a supplier management system covering supplier qualification, tiered management, performance evaluation and exit procedures. We introduced a “Supplier Code of Conduct” that encompasses best practices related to labor, health and safety, environment, compliance management systems and business ethics. We shortlisted a panel of suppliers and have established long-term stable partnerships with key suppliers.

To mitigate risks related to raw material prices and supply, we have established a monitoring system to promptly track supply and demand as well as price changes of key raw materials. We secure material supply and optimize procurement costs through approaches such as procurement in advance, while further maintaining supply chain safety and stability through self-operated mining and production of raw materials, investment partnerships, and signing long-term procurement agreements. Specifically, (i) we have expanded upstream to secure critical mineral resources, ensuring the stable supply of raw materials from the source; (ii) we have developed in-house production capabilities for certain key raw materials and enhance the autonomy and control of our supply chain by combining in-house production and external procurement; (iii) We have further deepened cooperation by investing in high-quality suppliers within the industry chain or establishing joint ventures with them, ensuring supply chain security and helping stabilize the procurement costs of key raw materials; and (iv) we have also entered into long-term procurement agreements, strategic cooperation agreements, or other long-term cooperation agreements with certain suppliers based on business needs, typically for a period of three to ten years, to foster more comprehensive and in-depth collaboration.

Procurement Agreements

Generally, our procurement is conducted through a bidding process. We enter into framework procurement agreements with our suppliers, stipulating general terms of cooperation, and execute raw material procurement through specific orders based on these agreements. The key terms in our framework procurement agreements and orders with suppliers typically include:

- *Material.* We shall list out the type, specifications, and quantity of required materials.
- *Price.* Depending on the type of materials and suppliers involved, prices can either follow the procurement agreement or be determined/adjusted according to the latest market prices at the time of order.
- *Inspection and returns.* Product inspection shall be carried out within the specified period upon delivery. We have the right to return defective materials that fail to meet agreed quality standards, and the supplier shall provide remedies, including returns and/or exchanges.

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- *Credit terms and payment.* Credit terms and payment methods shall be outlined in the purchase orders. We are granted certain credit terms, which is normally 90 days, by our major suppliers.
- *Confidentiality and anti-corruption.* We typically include confidentiality and anti-corruption provisions in our agreements, with confidentiality obligations potentially extending beyond agreement expiration.
- *Renewal and termination clauses.* The framework procurement agreement typically terminates upon the expiration of the agreed term and may also be terminated early under specified conditions.
- *Others.* Other terms such as delivery methods and date.

Due to factors such as fluctuations in material prices, changes in market supply and demand dynamics, and technological advancements, our procurement prices and quantities may vary. For details, see “Risk Factors — Price fluctuation and inadequate supply of materials and equipment for our production could adversely affect our business, financial condition and results of operations.”

MARKETING, SALES AND CUSTOMERS

Our Customers

During the Track Record Period, we generated revenue primarily from sales of EV batteries and ESS batteries, and battery materials sales and recycling. Our EV battery customers primarily consist of domestic and international automotive OEMs. Our ESS battery customers and partners mainly comprise ESS integrators and ESS project developers and operators. The primary customers for our battery materials and recycling segment and battery mineral resources segment are mainly lithium-ion battery material manufacturers.

In 2022, 2023 and 2024, our revenue from the five largest customers in each year accounted for 35.3%, 36.8% and 37.0% of our total revenue in the year, respectively; and revenue from our largest customer in each year accounted for 11.6%, 12.5% and 15.0% of our total revenue in the year, respectively. During the Track Record Period, we maintained stable business relationships with our five largest customers in each year.

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The following table sets forth the details of our five largest customers for each year during the Track Record Period.

Customer	Background	Revenue <i>(RMB million)</i>	Percentage of total revenue <i>(%)</i>	Location of headquarters	Scale of operations (registered capital)	Listing status	Major products purchased from us
For the year ended December 31, 2022							
Customer A . . .	An automotive and clean energy company that engages in businesses related to electric vehicles, and energy storage systems	38,069.5	11.6	Overseas	N/A	Listed	EV battery, ESS battery
Customer B . . .	A group whose businesses span the automotive industry and its supply chain, as well as intelligent electric mobility and energy services	26,511.7	8.1	China	RMB1,030,000,000	Not listed	EV battery
Customer C . . .	A company whose business primarily covers vehicles, components, mobility services, and innovative technology, etc.	25,525.8	7.8	China	RMB11,575,299,445	Listed	EV battery
Customer D . . .	A multinational automotive company that engages in the design, manufacturing, and sales of automobiles	13,882.5	4.2	Overseas	N/A	Listed	EV battery
Customer E . . .	A multinational automobile manufacturer specializing in designing and developing electric vehicles	12,087.2	3.7	China	RMB8,257,456,609	Listed	EV battery
Total		116,076.7	35.3				

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Customer	Background	Revenue	Percentage of total revenue	Location of headquarters	Scale of operations (registered capital)	Listing status	Major products purchased from us
		(RMB million)	(%)				
For the year ended December 31, 2023							
Customer A . . .	An automotive and clean energy company that engages in businesses related to electric vehicles, and energy storage systems	50,116.5	12.5	Overseas	N/A	Listed	EV battery, ESS battery
Customer B . . .	A group whose businesses span the automotive industry and its supply chain, as well as intelligent electric mobility and energy services	32,350.9	8.1	China	RMB1,030,000,000	Not listed	EV battery
Customer C . . .	A company whose business primarily covers vehicles, components, mobility services, and innovative technology, etc.	26,191.2	6.5	China	RMB11,575,299,445	Listed	EV battery
Customer D . . .	A multinational automotive company that engages in the design, manufacturing, and sales of automobiles	24,657.4	6.2	Overseas	N/A	Listed	EV battery
Customer F . . .	A company that engages in the design, development, and manufacturing of new energy vehicles	14,143.0	3.5	China	N/A	Listed	EV battery
Total		147,459.0	36.8				

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Customer	Background	Revenue	Percentage of total revenue	Location of headquarters	Scale of operations (registered capital)	Listing status	Major products purchased from us
		(RMB million)	(%)				
For the year ended December 31, 2024							
Customer A . .	An automotive and clean energy company that engages in businesses related to electric vehicles, and energy storage systems	54,173.4	15.0	Overseas	N/A	Listed	EV battery, ESS battery
Customer B . .	A group whose businesses span the automotive industry and its supply chain, as well as intelligent electric mobility and energy services	27,868.9	7.7	China	RMB1,030,000,000	Not listed	EV battery
Customer H . .	A company that mainly engages in the manufacturing and sales of PV, CV and engines, etc.	22,441.1	6.2	Overseas	N/A	Listed	EV battery
Customer G . .	A company that engages in the design, development, and manufacturing of vehicles and motorcycles	17,447.8	4.8	Overseas	N/A	Listed	EV battery
Customer I . .	A technology-driven manufacturing company, with new energy vehicles as its core business	12,133.1	3.4	China	RMB1,497,124,564	Listed	EV battery
Total		134,064.2	37.0				

To the best knowledge of our Directors, none of our Directors, their respective associates or any Shareholder who owns more than 5% of the issued share capital of our Company immediately following the completion of the [REDACTED] had any interest in our five largest customers in each year during the Track Record Period.

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Sales and Marketing

Guided by our “customer-centric” approach, we are committed to continuously satisfying market demand across various sectors to strengthen our market position and expand our customer base.

We prioritize customer needs by providing customized products to them, i.e. collaborating closely with them from the early stages of product development through technical exchanges and solution alignment. After thorough testing and validation, both parties then establish supply relationships and determine the specifications on product types, models, and pricing terms, etc. After that, both parties will maintain collaboration for a period of time for the corresponding products. Our sales department is in charge of executing the contracts based on specific customer requirements and our internal processes, and delivering the corresponding products and after-sales service.

We emphasize on brand value and continuously enhance our brand management efforts. To cater to different application scenarios, we have introduced multiple brand series of products and services, including “Qilin,” “Shenxing,” “Freevoy,” “Tianxing,” “TENER,” “Bedrock,” and “NING Service.” Additionally, we implement targeted marketing activities to better respond to customer needs, enhance brand recognition, and further elevate our corporate brand image.

Sales Agreements

We generally enter into framework sales agreements with major customers, pursuant to which customers will subsequently place specific purchase orders with us. Our framework sales agreements typically contain the following key terms:

- *Specification.* We usually set relevant technical parameters agreed with our customers in sales agreements or supplementary technology agreement. These parameters specify major technological characteristics of the products and services to be delivered.
- *Price.* We specify the unit price and/or total price of each product and service provided to the customer in the framework sales agreement. We will also negotiate with customers to determine a price adjustment mechanism based on factors such as different product types, business models, cooperation cycles, and fluctuations in raw material prices. Our price adjustment mechanism with customers is linked to the market prices of major metals or commodities such as lithium carbonate. When transacting with customers, we typically negotiate initial pricing based on the material prices at the time (benchmark price) and other factors, and agree that both parties will make adjustments for product pricing accordingly based on the change in the average market price of materials compared to the benchmark price during a certain period before delivery, as well as the actual purchase volume.

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- *Payment and delivery.* We assess applicable payment terms based on our customers’ credit status and historical performance. We generally grant a credit period within 60 days to our major customers. In addition, we have a systematic credit control mechanism that enables us to proactively identify and mitigate risks related to accounts receivable during contract fulfillment. We assume the costs and risks associated with contract performance in accordance with the applicable laws governing the relevant transactions and the trade terms agreed upon with our customers. Furthermore, depending on the product type and business model, we specify corresponding order delivery mechanisms or delivery cycles in our framework sales agreements.
- *Term and termination.* The term of the agreement generally ranges from one to several years and may vary on a case-by-case basis. The renewal of framework agreements is dependent on the outcomes of our negotiations with different customers.

Pricing

We price our products based on various factors, including costs of the materials, production costs, order volumes, delivery requirements, warranty services, market conditions, payment methods and specifications of products required by customers. We closely monitor fluctuations in prices of main materials and related raw materials, and actively work to reduce procurement and production costs, and reassess product pricing levels when necessary. Our framework sales agreements or supplementary agreements include price adjustment mechanisms, providing us flexibility to adjust product pricing when supply-demand dynamics or commercial conditions change.

After-Sales Service

We have consistently put great emphasis on after-sales service, delivering comprehensive, quality, and timely services to both customers and end-users through our global network of service stations. As of December 31, 2024, we had set up over 770 after-sales service stations across 64 countries and regions, including 169 overseas service stations. In addition, we are committed to standardizing after-sales service quality and enhance service sustainability in the battery industry. We launched our own “NING Service” after-sales brand, through which we offer support services, including but not limited to battery maintenance, testing, recycling and reuse, insurance, and training.

We have established comprehensive response mechanisms, as well as product return and replacement procedures. We offer warranty services for the lithium-ion batteries we sell. Generally, we accept return of any product if it has any quality defect and is still within the warranty period stipulated in the sales contract or production specifications. The warranty period of the EV batteries for PV and CV we sell is primarily determined based on their service life or driving mileage, generally ranging from 5 to 10 years or 160,000 to 1,000,000 kilometers. The warranty period of the ESS batteries we sell is determined through negotiations

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with customers and varies according to each project, generally with a range of 3 to 20 years. In 2022, 2023 and 2024, we incurred actual warranty expenses of RMB1.4 billion, RMB0.5 billion and RMB1.2 billion, respectively, which represented a relatively low percentage of our warranty deposits accrued in the respective year. During the Track Record Period and up to the Latest Practicable Date, we did not receive any material customer complaints or product returns, nor any material product returns or order cancellations due to product defects.

Our customer service and management efforts continue to receive external recognition. We have been awarded the Five-Star (Standard), Seven-Star (Excellent), and Twelve-Star (currently the highest industry rating in China) certifications jointly issued by the China General Chamber of Commerce and the National Commodity After-Service Conformity Certification Evaluation Committee.

Overlapping of Suppliers and Customers

In 2022, 2023 and 2024, our five largest suppliers in each year were also our customers during the Track Record Period. Since we purchased direct materials for battery production from these suppliers, including cathode materials, anode materials, separator and electrolyte, etc., and also sold certain upstream materials to them, including lithium carbonate, lithium hydroxide, precursors, etc., they were both our suppliers and customers. In order to secure the supply of direct materials, we sell certain of the above-mentioned upstream materials to some of our direct material suppliers, who then sell back to us after they have processed them into direct materials such as cathode materials. The relevant transactions are conducted at market prices.

Except for Supplier A and Supplier C, the revenue from any of our other five largest suppliers in each year during the Track Record Period accounted for less than 1.0% of our total revenue in the respective year. In 2022, 2023 and 2024, the revenue generated from Supplier A accounted for 2.0%, 1.6% and 1.3% of our total revenue, respectively; and the revenue generated from Supplier C accounted for 1.4%, 0.7% and 2.0% of our total revenue, respectively. For details about our purchase amounts from these suppliers and the respective percentage of our total purchase amounts during the Track Record Period, see “— Raw Materials and Suppliers — Our Suppliers.”

During the Track Record Period, among the five largest customers in each year, Customer B, Customer C, and Customer G were also our suppliers. Since they purchased EV batteries and/or ESS batteries from us and we purchased a small number of waste batteries from them, they were both our customers and suppliers. During the Track Record Period, the amount of our purchases from each of these customers was immaterial for our business, accounting for less than 0.1% of our total purchase amount in the respective year. For details about our revenue generated from these customers and the respective percentage of our total revenue during the Track Record Period, see “— Marketing, Sales and Customers — Our Customers.”

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WAREHOUSING, LOGISTICS AND INVENTORY MANAGEMENT

We established comprehensive systems and procedures for warehousing, logistics, and inventory management, to standardize the entire process from receipt of materials, stock-in of inventory, return of manufacturing materials, to finished product delivery. Meanwhile, we regularly review and update relevant procedures, which are published through our internal systems. We also provide staff training to ensure strict procedural compliance, including inspection, handling and reporting of anomalies to maintain standardized operations.

For inventory management, we track our the storage locations of our inventory, which helps improve warehousing efficiency and achieve full traceability of materials. Each step from receipt of material to finished product delivery undergoes rigorous verification. Regular cycle counts and annual inventory stock-taking are conducted to maintain accuracy and transparency in inventory management, ensuring stable operation of our warehousing and logistics system. Additionally, we perform periodic analysis of slow-moving inventory and timely develop management plans. We have also engaged competent logistics providers to ensure safe, timely, and reliable product delivery.

PROPERTY

We own and lease certain properties primarily to be used as production facilities, warehouses and offices. As of December 31, 2024, we did not have any assets with a carrying amount that equaled or exceeded 15% of our consolidated total assets as of that same date.

Owned Land and Properties

As of December 31, 2024, we had rights to use 117 parcels of land in mainland China and overseas, with a GFA of over 10,000 square meters each, and approximately 35.60 million square meters in aggregate. As of the Latest Practicable Date, our rights to use such construction land were lawful and valid, and there were no disputes or potential disputes over the ownership over such land.

As of December 31, 2024, our Company and the Major Subsidiaries owned 91 properties in mainland China, with an area of over 10,000 square meters each, and approximately 7.98 million square meters in aggregate. Among them, 87 properties have obtained property ownership certificates and four properties have completed the completion acceptance process and are awaiting the issuance of property ownership certificates. The properties are primarily used for production, warehousing, R&D and office purposes. As confirmed by our PRC Legal Advisors, our Company and the Major Subsidiaries legally and validly own the aforementioned properties, with no existing or potential ownership disputes. As of December 31, 2024, our Company and the Major Subsidiaries owned one property overseas with an area of over 10,000 square meters each, which have a total area of approximately 0.13 million square meters. The above-mentioned properties are legal and valid, and there are no disputes or potential disputes over the ownership.

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Leased Properties

As of December 31, 2024, our Company and the Major Subsidiaries had 17 leased properties in mainland China in relation to our business operations, with a GFA of over 10,000 square meters each, and approximately 0.47 million square meters in aggregate, primarily for the warehousing purpose. As of December 31, 2024, our Company and the Major Subsidiaries owned two leased properties overseas with a GFA of over 10,000 square meters each, which are related to our business operations, totaling approximately 0.12 million square meters.

As of December 31, 2024, our Company and the Major Subsidiaries in mainland China have not registered and filed certain property leases, and the lessees were facing the risk of being ordered by the competent authorities to make corrections within a certain period of time, and being subject to a fine of up to RMB10,000 per lease in the event of failure to make corrections after within the deadline. As confirmed by our PRC Legal Advisors, as of December 31, 2024, our Company and the Major Subsidiaries have not received any notification from the relevant authorities ordering rectification in relation to the aforesaid lease registration and filing issue, nor has it been penalized by any relevant authorities as a result. Meanwhile, according to the Civil Code of the PRC and other relevant regulations, the lack of registration and filing of lease agreements does not affect the legal effect of such lease agreements, and the failure to register and file the aforesaid property lease agreements will not have any material adverse impact on our production and operation.

As of December 31, 2024, we were not exposed to any circumstance where the loss of any single owned or leased property would have material adverse impact on our production and operations.

COMPLIANCE AND LEGAL PROCEEDINGS

During the Track Record Period and up to the Latest Practicable Date, we had complied in all material respects with the applicable laws and regulations relating to our business operations. However, we may from time to time become a party to various legal, arbitration or administrative proceedings arising in the ordinary course of business. For details, see “Risk Factors — Risks Relating to our Operations — Any litigation, legal and contractual disputes, claims or administrative proceedings against us could be costly and time-consuming to defend or settle, and could adversely affect our reputation.” During the Track Record Period and as of the Latest Practicable Date, there was no litigation, arbitration or administrative proceedings pending or, to our best knowledge, threatened against our Company or any of our Directors which could have a material and adverse effect on our financial condition or results of operations.

We noted that the U.S. Department of Defense (“DoD”) included our Company in the list of Chinese Military Companies on January 7, 2025. We made a public response on the same day. We have never engaged in any military-related businesses or activities, therefore such designation by the DoD is a mistake. It does not restrict us from conducting business with entities other than a small number of U.S. governmental authorities, thus is expected to have

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no substantial adverse impact on our business. We are proactively engaging with DoD to address the false designation. We cannot guarantee that such attempts will be successful or that the relevant government agencies will not take any further actions. We may be subject to such actions, which may have a material adverse effect on our business and results of operations. See also “Risk Factors — Risks Relating to our Operations — Policies and regulations affecting, among other things, international trade and investment may adversely affect our business and results of operations.”

COMPETITION

The global lithium-ion battery industry is relatively concentrated. According to the GGII Report, based on EV battery usage volume in 2024, the top five and top ten EV battery companies accounted for 74.7% and 89.4% of the global market, respectively. In terms of shipment volume, the top five and top ten energy storage battery manufacturers accounted for 73% and 96% of the global market in 2024, respectively. There is a notable overlap between the global top ten companies in the EV battery market and those in the ESS battery market.

We continuously invest in cutting-edge technologies, optimize our product portfolio, explore cross-industry innovative applications, and drive the development of the zero-carbon ecosystem, thereby strengthening our competitive edge in an ever-evolving market.

INFORMATION SECURITY AND PRIVACY

We place significant emphasis on information security management, drawing on international best practices in our operational activities. By establishing a high-standard data security management system that meets regulatory standards and ensures full coverage, we have laid a robust foundation for information security, benefitting both domestic and international clientele. We strictly abide by the Cybersecurity Law of the People’s Republic of China (《中華人民共和國網絡安全法》), Data Security Law of the People’s Republic of China (《中華人民共和國數據安全法》), the Personal Information Protection Law of the People’s Republic of China (《中華人民共和國個人信息保護法》), the General Data Protection Regulation (GDPR) of the European Union, and other national or regional laws and regulations to conduct business. We also established the Security and Secrecy Committee (SSC) with the subordinated Security and Secrecy Office (SSO). The SSO carries out specific tasks across all of our departments and manufacturing bases with support from external consulting, testing, and auditing agencies. We have achieved the highest level of TISAX (Trusted Information Security Assessment Exchange) certification, jointly issued by the German Association of the Automotive Industry (VDA) and the European Network Exchange (ENX).

In the course of outbound daily operations, we may need to collect and process personal information of our individual users, visitors, and partners, involving various scenarios including personal information collection and use, and entrusted third-party processing. We strictly comply with applicable laws and regulations, including the Personal Information Protection Law of the People’s Republic of China (《中華人民共和國個人信息保護法》), the Data Security Law of the People’s Republic of China (《中華人民共和國數據安全法》), the

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Cybersecurity Law of the People’s Republic of China (《中華人民共和國網絡安全法》), the EU GDPR, and other application laws and regulations, and enhance our data compliance management practices. We integrate data and privacy compliance efforts within our compliance management framework, which includes proactively following the developments and interpretations of laws and regulations, building institutional systems, conducting compliance risk assessments, performing compliance reviews, and providing training.

AWARDS AND ACHIEVEMENTS

The following table sets forth some awards we received and certain achievements we made.

Name of Award	Awarding Entity	Year
Second Prize of National Scientific and Technological Progress Awards	The State Council of the People’s Republic of China	2024, 2024*
China ESG 50	Forbes China	2024
Industrie 4.0	ROI-EFESO Management Consulting	2024
Global 500	Fortune	2023, 2024
China’s “50 Most Innovative Companies”	Forbes China	2023
Global Lighthouse Factory	World Economic Forum	2021, 2022, 2023
The 100 Most Influential Companies	TIME	2022, 2023
Global 500 — The World’s Most Valuable and Strongest Brands . . .	Brand Finance	2023
“China ESG Model” Enterprise	China Media Group	2023
TECHNOBEST 2024 Award	AUTOBEST	2023
Best Inventions	TIME	2022

Note:

- * In 2024, our Group and its subsidiaries won two 2023 Second Prizes of National Scientific and Technological Progress.

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ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

ESG Management Framework

Our Corporate Sustainability Management Committee (“CSMC”) is headed by the Secretary of the Board and comprises relevant senior management members and department heads as its members. Under the supervision of the CSMC, we also established the Council of Corporate Sustainability Management Committee (“CCSMC”), consisting of key members from various business departments. The CCSMC is tasked with developing the overarching blueprint and executing sustainability management initiatives.

In 2023, we became a member of the United Nations Global Compact (UNGC), and committed to supporting its ten principles across four key areas encompassing human rights, labor, environment, and anti-corruption. By taking actions to fulfill commitments and better advance the progress of sustainable development goals, we continue to improve information transparency, and communicate the values and principles of sustainable development to a wider array of stakeholders.

Material ESG Topics

Material ESG topics serve as key focal points for the management of our sustainable development. Following stakeholder engagement principles, we regularly conduct importance assessments by consulting both internal and external stakeholders to determine our material topic matrix. In 2024, the key material topics reviewed and confirmed by the CCSMC included R&D innovation, talent cultivation and development, product quality and safety, climate change response, circular economy. To systematically promote the improvement and enhancement of these material topics, our Company has established an ESG management indicator system based on three levels: “dimension – topic – indicator.” All indicators are assigned to the relevant responsible departments, with ESG management specialists designated within each department to coordinate and drive the improvement and enhancement of related ESG indicators.

Environment

Climate change

We have positioned climate change and carbon emissions as core strategic priorities in our sustainable development agenda, and have established a climate governance framework based on our sustainability management system. In 2023, we officially announced our targets to achieve carbon neutrality in our core operations by 2025 and across the value chain by 2035. To deliver on these goals, we launched six major initiatives: Zero-Carbon Design, Zero-Carbon Factory, Zero-Carbon Supply, Zero-Carbon Manufacturing, Zero-Carbon Power, and Circular Ecosystem. Driven by continuous innovation, we will continue developing low-carbon products and technologies, systematically advancing process optimization and energy efficiency initiatives, vigorously expanding renewable energy projects, and strategically deploying battery recycling – all to comprehensively advance carbon neutrality across our operations and value chain.

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Furthermore, in accordance with relevant requirements, we regularly carry out greenhouse gas emissions accounting at our operational battery production facilities, and perform independent verification of greenhouse gas emissions, strengthening the foundation of our carbon emissions data. Meanwhile, all of our Zero-carbon factories have all obtained PAS 2060:2014 carbon neutrality certification from SGS, a certification institution.

Total GHG Emissions from Battery Manufacturing Bases⁽¹⁾

Item	Unit	For the year ended December 31,		
		2022	2023	2024
Total Scope I GHG emissions ⁽²⁾	tCO ₂ e	610,885.46	765,338.97	930,440.28
Total Scope II GHG emissions ⁽²⁾	tCO ₂ e	2,631,947.26	1,477,835.08	1,423,359.12
Total GHG emissions.	tCO ₂ e	3,242,832.72	2,243,174.05	2,353,799.40

Notes:

- (1) The total GHG emissions from the battery manufacturing bases includes GHG emissions from Scope I and Scope II. The calculation of GHG emissions from Scope I and Scope II was made by referring to ISO 14064-1:2018 and the General Guideline of the Greenhouse Gas Emissions Accounting and Reporting for Industrial Enterprise (《工業企業溫室氣體排放核算和報告通則》) (GB/T32150-2015);
- (2) Scope I covers emissions from fossil energy consumption during operations, production process emissions and fugitive emissions of the battery sector; Scope II calculates emissions of purchased electricity consumed and steam in battery production.

Total GHG Emissions from the Group⁽¹⁾

Item	Unit	For the year ended December 31, 2024
Total Scope I GHG emissions ⁽²⁾	tCO ₂ e	2,401,702.32
Total Scope II GHG emissions.	tCO ₂ e	3,550,150.78
Total Scope III GHG emissions ⁽³⁾	tCO ₂ e	112,350,996.78
Total GHG emissions.	tCO ₂ e	118,302,849.88

Notes:

- (1) In 2024, we started to measure scope of GHG emissions at the Group level, in which the scope of data statistics was expanded from battery manufacturing bases to all companies with substantial environmental impacts within the Group, to which companies in the battery materials and recycling and battery mineral resources sectors were added.
- (2) Emission factors for coal and LPG were derived from the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and emission factors for acetylene were calculated using the mass balance method. GHG emissions from other energy types were calculated with reference to the battery manufacturing bases.
- (3) We selected some of the Scope III categories for accounting and disclosure based on our materiality assessment criteria and taking into account our industry characteristics, business relationships, data availability and disclosure costs.

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Energy management

We actively advance our energy management through various measures, including enhancing energy efficiency and implementing renewable energy solutions. In 2024, we implemented 310 energy conservation measures company-wide, resulting in annual savings of 255 million kWh per year in electricity consumption, 7.5 million cubic meters per year in natural gas consumption, and 375,500 tons per year in steam consumption. These energy savings are equivalent to avoiding approximately 264,600 tons of CO₂ equivalent emissions. In 2024, the proportion of our zero-carbon power usage in core operating segments reached 74.51%, an increase of about 9% compared to 2023.

Environmental compliance, waste and water resources management

During the Track Record Period, we strictly adhered to the relevant provisions of the Environmental Impact Assessment Law of the PRC (《中華人民共和國環境影響評價法》), the Regulations on the Administration Construction Project Environmental Protection (《建設項目環境保護管理條例》) and the Interim Measures for Environmental Protection Acceptance of Completed Construction Projects (《建設項目竣工環境保護驗收暫行辦法》) to complete the environmental impact assessment work for construction projects. All projects that have been put into production or operation have completed the environmental protection acceptance procedures.

We have established internal management systems covering the entire Group to address the discharge and disposal of wastewater, waste gas, and solid waste (including hazardous waste) generated during production and operations, ensuring compliance with relevant laws and regulations on pollution discharge. In addition, we have developed a self-monitoring program for pollutants such as wastewater and waste gas, which has been implemented as required. The monitoring results have met all relevant requirements.

Our wastewater discharges mainly consist of industrial wastewater and domestic sewage, which are treated to meet discharge standards through on-site wastewater treatment facilities and municipal wastewater plants. Our air emissions are treated through air pollution control facilities to meet emission standards before discharge. For general industrial solid waste and hazardous waste, we engage qualified disposal agencies for harmless disposal or comprehensive utilization, or after classification and collection, commission downstream suppliers for harmless disposal or comprehensive utilization.

In 2024, the total generation of general industrial solid waste for our Company was 10.0 million tons, with a disposal quantity of 9.2 million tons and a total of 0.9 million tons of general industrial solid being recycled and reused. The total generation of hazardous waste was 17.1 thousand tons, with a disposal quantity of 15.7 thousand tons and a total of 1.5 thousand tons of hazardous waste being recycled and reused. The pollutants in wastewater included chemical oxygen demand (COD) of 95.2 tons, ammonia nitrogen (NH₃-N) of 15.5 tons; and the pollutants in waste gas included nitrogen oxides (NO_x) of 2,841.7 tons, sulfur dioxide (SO₂) of 12,067.1 tons, and volatile organic compounds (VOCs) of 1,094.3 tons.

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Item	Unit	For the year ended December 31,		
		2022	2023	2024
Total water intake ⁽¹⁾	M ³	20,407,511.94	25,479,086.86	3,579,322,963.72
Disposal of general industrial solid waste ⁽²⁾	tons	90,648	81,523	9,180,825
Disposal of Hazardous waste ⁽²⁾	tons	11,297	12,311	15,659

Notes:

- (1) The main reason for the increase in the data of total water intake in 2024 is that the statistical scope of the data is further expanded compared with that in 2022 and 2023. The scope of statistics has been expanded from battery manufacturing bases to all companies within the Group that have substantial environmental impacts. The scope of statistics mainly includes new companies in the battery materials and recycling and battery mineral resources sectors;
- (2) The main reason for the increase in waste management data in 2024 is that the statistical scope of data has been further expanded compared with 2022 and 2023. The statistical scope has been expanded from battery manufacturing bases, wholly-owned subsidiaries in the field of battery materials, and key environmental supervision units to all companies with substantial environmental impacts in the Group's consolidated financial statements. The expanded statistical scope mainly includes companies in the battery materials and recycling, and battery mineral resources sectors.

Social Responsibility

Supply Chain Management

We continually reinforce our sustainable supply chain management capabilities by integrating sustainability into our supply chain management system. This involves actively implementing environmental and social responsibility risk management for suppliers, promoting carbon emission reduction throughout the supply chain, and supporting the sustainable development transition of the industry. We incorporate ESG-related metrics, including but not limited to low-carbon and social responsibility indicators, into supplier performance evaluations as additional scoring factors. We present sustainability awards annually to recognize excellent sustainability management performance. For suppliers with poor performance, we issue non-compliance rectification plans and oversee corrective actions.

In addition, we have leveraged digital technology to establish a supply chain compliance traceability system with both internal and external tracking capabilities, which can comprehensively trace and document each step of product manufacturing and supply chain management to ensure compliance with relevant regulations and standards.

BUSINESS

The Sustainability Transparency Audit of our CREDIT Value Chain consists of Carbon Footprint, Recycling, Energy, Due Diligence, Innovation & Transparency, covering six modules, i.e. sustainability governance systems, business ethics, environmental protection, labor practices, sustainable procurement and critical minerals management. Such audit generates a supplier sustainability risk rating based on the audit results, with recommendations for suppliers to improve.

Occupational Health, Safety and Care

We are committed to abiding by all applicable regulatory requirements, preventing and reducing hazards and risks that may harm the health of our employees, and ensuring the health and safety of our employees and surrounding communities. Strictly complying with the *Labor Law of the People’s Republic of China* (《中華人民共和國勞動法》), the *Law of the People’s Republic of China on Prevention and Control of Occupational Diseases* (《中華人民共和國職業病防治法》) and the applicable laws and regulations in overseas locations of operation, we have continuously strengthened the occupational health protection of employees, and systematically sorted out the occupational health management system documents. Meanwhile, we have established management practices in areas such as recruitment and dismissal, remuneration and promotion, working hours and leave, with reference to applicable international standards, including the conventions of the International Labor Organization, in order to safeguard the lawful rights and interests of our employees.

We conduct regular information sessions on occupational health and safety awareness for employees, including equipment safety, safety regulations, construction safety, and incident case studies. Meanwhile, through themed posters, health knowledge training, and contests, we continue to improve safety awareness of our employees.

We strictly comply with applicable laws and regulations and are committed to lawful and compliant employment practices. All of our full-time employees are aged 18 or above and have entered into labor contracts with us. In line with the continued expansion of our international business, we have been promoting the global integration of our human resources management systems and implementing specialized overseas human resource management initiatives to ensure compliance with local laws, regulations and cultural practices in different countries and regions.

We offer all employees competitive welfare and benefits, including but not limited to social insurance, paid leave, holiday benefits and recreational activities. We actively enrich our employees’ cultural life, place strong emphasis on both their physical and mental well-being, remain attentive to the needs of employees facing difficulties, and strive to create a harmonious and fulfilling working environment.

We uphold a culture of equality, diversity, innovation, and zero tolerance for discrimination, fostering a transparent and trusting environment that values honesty and inclusiveness.

BUSINESS

Community Relations Management

We consistently uphold the principle of balancing enterprise growth with social responsibility, actively engaging in various social welfare areas such as community development, education assistance, emergency relief, environmental conservation, and cultural and sports initiatives. Through dedicated charitable funds and donations, we diligently fulfill our corporate citizenship obligations, jointly fostering social value.

We aim to foster a culture of active engagement in public welfare among our employees, encouraging them to address social challenges through practical actions. Our “CATL Volunteer Service Team” has been driving charitable and volunteer initiatives since 2017. We also partner with non-profit organizations in our operating locations, providing donations to meet local community needs and help address social challenges.

Corporate Governance

Anti-corruption and Anti-bribery

We maintain firm adherence to regulatory compliance, and aim to create a work environment characterized by “compliance, integrity, and honesty.” We have established a Code of Conduct Committee (“COC”) under the Board of Directors, which has overall responsibility for integrity-building initiatives across all business units and subsidiaries. The COC is responsible for formulating the company’s integrity-building policies, establishing comprehensive rules and procedures centered on anti-corruption and business ethics, investigating employees who violate the company’s code of conduct, and reporting directly to the Board of Directors. We comprehensively enhance our anti-bribery management capabilities through integrity system building, fraud risk assessment, integrity culture education, and integrity supervision mechanisms.

LICENSES, PERMITS AND APPROVALS

We are subject to regular inspections, reviews and audits and are required to maintain or renew the permits, licenses and certifications necessary for our operations. During the Track Record Period and up to the Latest Practicable Date, we had obtained all necessary licenses, approvals, and permits from the competent government departments and regulatory authorities that are material for our business operations in the jurisdictions where we operate.

BUSINESS

The following table sets forth our key licenses and permits. As of the Latest Practicable Date, the following licenses and permits are all valid:

Holder	Name of license, approval, permit
CATL	Radiation Safety License, Pollutant Discharge Permit, Registration Receipt of Pollution Discharge from Stationary Pollution Sources
CATL-JS	Radiation Safety License, Pollutant Discharge Permit
UABC	Radiation Safety License, Pollutant Discharge Permit
CATL-SC	Radiation Safety License, Pollutant Discharge Permit
CATL-FD	Radiation Safety License, Pollutant Discharge Permit
CATL-RQ	Radiation Safety License, Pollutant Discharge Permit
CATL-RT	Radiation Safety License, Registration Receipt of Pollution Discharge from Stationary Pollution Sources
Hunan Brunp	Hazardous Chemicals Operation License, Hazardous Waste Operation License, National Production License for Industrial Products, Hazardous Chemicals Registration Certificate, Pollutant Discharge Permit
Ningbo Brunp	Hazardous Chemicals Registration Certificate, Hazardous Chemicals Operation License

INSURANCE

We maintain insurance policies in accordance with relevant laws and regulations and based on our assessment of the needs of our operations and industry practices. In accordance with the requirements of relevant laws and regulations, we take out social insurances for our employees working in China, including pension insurance, unemployment insurance, work-related injury insurance, maternity insurance and medical insurance. Our current insurances also cover, among others, property insurance, product liability insurance, environmental pollution liability insurance, cargo transportation insurance, and D&O liability insurance. We believe that our current insurance coverage is adequate to meet the needs of our operations and consistent with industry practices in China. For more information, please refer to “Risk Factors — Our insurance coverage is limited and may not cover all losses, which may increase our operating costs.”

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EMPLOYEES

As of December 31, 2024, we had a total of 131,988 employees, most of whom were based in China. The following table sets forth the number of our employees by function as of the same date.

Function	Number of employees	% of the total employees
Production	96,725	73.3
Technology	20,346	15.4
Administration	11,419	8.7
Sales	2,806	2.1
Finance	692	0.5
Total	131,988	100.0%

We recruit employees primarily through referrals, headhunters, online job portals and campus job fairs. We offer new employee orientation training and regular on-the-job training to our employees. We and employees enter into individual employment contracts covering matters including salary, bonuses, employee benefits, confidentiality obligations, non-compete clauses, work product and intellectual property transfer clauses and reasons for contract termination. The remuneration packages of our employees include salary and bonuses, which are usually determined based on their seniority, performance appraisal and term of service. We also provide share incentives and promotion opportunities to motivate our employees.

Sharing success with employees and empowering them to grow is one of the core elements of our corporate culture. We always strive to provide employees with comprehensive social benefits, a safe working environment and diverse career development opportunities. Meanwhile, we strictly abide by the laws, regulations and standards on workplace safety in relevant countries and regions, and are committed to creating a safe and healthy working environment for employees, and ensuring the safety and physical and mental health of employees by implementing a highly efficient management system.

During the Track Record Period and up to the Latest Practicable Date, we had not experienced any labor disputes or strikes that could have a material and adverse effect on our business, financial condition or results of operations.

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RISK MANAGEMENT AND INTERNAL CONTROL

We have adopted and implemented comprehensive risk management policies, covering risks that may arise in R&D, procurement management, production management, sales management and new project construction. Meanwhile, we are dedicated to overseeing and accessing the effectiveness of risk management and internal control systems to ensure that these systems are corrected and effectively controlled during business development in a timely manner.

In order to monitor the continuous implementation of post-[REDACTED] risk management policies and corporate governance measures, we have taken or will continue to take risk management measures as follows:

- Our Board is responsible for monitoring our internal control system, assessing its effectiveness and maintaining suitable and effective risk tolerance levels.
- Our audit department assists our management with developing risk management policies and reviewing major risk management matters, providing guidance to relevant departments on risk management measures, and overseeing the implementation of risk management policies.
- Our financial affairs department, legal and compliance department, human resources department and other relevant departments are responsible for implementing our risk management policies and conducting daily risk management activities.
- When necessary, we engage external professional advisors to work with our internal audit and legal teams to conduct regular reviews to ensure the validity of all registrations, licenses, permits, filings and approvals.