

Stock Code: 688005

Company Abbreviation: Ronbay Technology

**Ningbo Ronbay New Energy Technology Co., Ltd.
Annual Report 2022 (Abridged English Version)**

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Section I Important Notes

- 1 The Board of Directors, the Board of Supervisors, the directors, supervisors, and senior managers of the Company shall guarantee the truthfulness, accuracy, and completeness of the contents of the Annual Report, which is free of any false records, misleading statements, or major omissions, and shall bear joint and several liability.
- 2 All directors of the company attend the Board of Directors meetings.
- 3 Pan-China Certified Public Accountants (Special General Partnership) issued a standard unqualified audit report for the Company.
- 4 Profit distribution plan or accumulation fund to increase capital stock plan approved by the Board of Directors during the reporting period.

As audited by Pan-China Certified Public Accountants (Special General Partnership), as of December 31, 2022, the profit available for distribution of the parent company at the end of the period had reached RMB 181,965,693.74. As decided by the Board of Directors, the Company intends to distribute the profit in 2022 on the basis of the total share capital registered on the registration date of the implementation of equity allocation. The profit distribution plan is as follows: The listed company intends to pay cash dividend of RMB 3.02 (tax included) for every 10 shares to all shareholders. As of December 31, 2022, the Company had had a total share capital of 450,883,265 shares, based on which the proposed total cash dividends were RMB 136,166,746.03 (tax included). This year's cash dividends account for 10.06% of the Company's 2022 net profit attributable to the parent company. The Company's 2022 annual profit distribution plan has been deliberated and approved at the 21st meeting of the second Board of Directors of the Company, and it needs to be submitted to the General Meeting of Shareholders for deliberation.

Section II Definitions

Unless the context otherwise requires, the following words shall have the following meanings in this Report:

Definition of common words		
Company, The Company and Ronbay Technology	shall mean	Ningbo Ronbay New Energy Technology Co., Ltd.
Beijing Ronbay	shall mean	Beijing Ronbay New Energy Technology Co., Ltd., a wholly-owned subsidiary of the Company
Skyland	shall mean	Tianjin Skyland Technology Co., Ltd., a majority-owned subsidiary of the Company
Battery Triangle Fund	shall mean	Hubei Ronbay Battery Triangle One Equity Investment Fund Partnership (Limited Partnership)
Shanghai Ronbay	shall mean	Shanghai Ronbay New Energy Investment Partnership (Limited Partnership), controlling shareholder of the Company
Ronbay Management	shall mean	Beijing Ronbay New Energy Investment Management Co., Ltd.

Ronbay Development	shall mean	Beijing Ronbay New Energy Investment Development Co., Ltd.
Ronbay Technology	shall mean	Beijing Ronbay New Energy Technology Investment Management Co., Ltd.
Zunyi Ronbay Partnership	shall mean	Zunyi Ronbay New Energy Investment Center (Limited Partnership)
CATL	shall mean	Contemporary Amperex Technology Co., Limited and its controlled companies Jiangsu Contemporary Amperex Technology Limited, Fuding Contemporary Amperex Technology, Sichuan Contemporary Amperex Technology and CATL-SAIC Power Battery Co., Ltd.
Farasis	shall mean	Farasis Energy (Ganzhou) Co., Ltd. and its subsidiary Farasis Energy (Zhenjiang) Co., Ltd.
SVOLT	shall mean	SVOLT Energy Technology Co., Ltd., its controlled companies SVOLT Energy Technology Baoding, SVOLT Energy Technology Wuxi and its subsidiary SVOLT Energy Technology (Wuxi) Co., Ltd.
EVE	shall mean	EVE Energy Co., Ltd. and its subsidiaries EVE Battery Co., Ltd., EVE Jineng Co., Ltd. and EVE Power Co., Ltd.
GEI	shall mean	GEI Co., Ltd., Jingmen GEI New Materials Co., Ltd., and GEI (Wuxi) Energy Materials Co., Ltd.
Lygend	shall mean	Lygend Resource Technology Co., Ltd.
WeLion	shall mean	Beijing WeLion New Energy Technology Co., Ltd.
Samsung SDI	shall mean	Samsung SDI Co., Ltd., subordinate to Samsung Group.
SK on	shall mean	The battery subsidiary of SK Innovation Co., Ltd., a major energy and chemical company in South Korea
Tianqi Lithium	shall mean	Chengdu Tianqi Lithium Co., Ltd.
Albemarle	shall mean	Albemarle Management (Shanghai) Co., Ltd.
GGII	shall mean	An industry research consultancy focused on China's strategic emerging industries, consisting of lithium, electric vehicles, LED, robotics, new materials, and intelligent vehicle institutes.
Lithium battery	shall mean	A class of batteries consisting of lithium metal or lithium alloy as cathode materials and using a non-aqueous electrolyte solution. Lithium batteries can be divided into lithium-metal batteries and lithium-ion batteries. All references to "lithium batteries" in this Report are lithium-ion batteries.
Lithium-ion battery	shall mean	A secondary battery (rechargeable battery) that operates primarily by moving sodium ions between the cathode and anode. In the process of charging and discharging, Li ⁺ is embedded and deembedded between the two electrodes. During charging, Li ⁺ is deembedded from the cathode and

		embedded into the anode through the electrolyte, and the anode is in a sodium-rich state. The opposite is true for electrical discharge.
Sodium-ion battery	shall mean	A secondary battery (rechargeable battery) that operates primarily by moving sodium ions between the cathode and anode. In the process of charging and discharging, Na ⁺ is embedded and deembedded between the two electrodes. During charging, Na ⁺ is deembedded from the cathode and embedded into the anode through the electrolyte, and the anode is in a sodium-rich state. The opposite is true for electrical discharge.
Cathode material	shall mean	one of the main components of lithium batteries, the performance of which directly affects the performance index of lithium batteries.
Precursor	shall mean	The intermediate product of highly uniform distribution of various elements prepared by solution process, which can be converted into the finished product by chemical reaction, and plays a decisive role in the performance index of finished product.
Ternary cathode materials/ternary materials	shall mean	ternary composite cathode materials made of such raw materials as nickel salt, cobalt salt, and manganese salt, or nickel salt, cobalt salt, and aluminum salt in lithium battery cathode materials.
NCM (Lithium nicocobalmanganate)	shall mean	A ternary material with the chemical formula of LiN _x Co _y Mn _z O ₂ , x+y+z=1, the most widely used ternary material in China now; the higher the nickel content, the higher the specific capacity.
NCA (Nickel-cobalt lithium aluminate)	shall mean	A ternary material with the chemical formula of LiN _x Co _y Al _z O ₂ , x+y+z=1.
NCMA (Nickel-cobalt-manganese lithium aluminate)	shall mean	A ternary material with the chemical formula of LiN _x Co _y Mn _z Al _n O ₂ , x+y+z+n=1.
Lithium iron phosphate (LFP)	shall mean	An olivine-structured phosphate, used as a cathode material for lithium-ion batteries, mainly used in lithium-ion power batteries and lithium-ion energy storage, with the chemical formula of LiFePO ₄ .
Lithium ferromanganese phosphate (LMFP)	shall mean	A new phosphate solid solution lithium-ion battery cathode material formed by replacing part of iron (Fe) with manganese (Mn) on the basis of lithium iron phosphate (LiFePO ₄), with the chemical formula of LiMn _x Fe _{1-x} PO ₄ .
New energy vehicles	shall mean	vehicles that adopt unconventional vehicle fuel as a power source (or use conventional vehicle fuel and adopt new on-board power devices), integrate advanced technology in power control and drive of vehicles, and form advanced

		technical principles, new technologies and a new structure.
Energy density	shall mean	Energy per unit volume or unit mass of a battery, divided into volumetric energy density (Wh/L) and mass energy density (Wh/kg).

Section III Basic Information and Main Financial Data of the Company

1 Company Profile

Company Stock Profile

Applicable Not applicable

Company Stock Profile				
Stock Class	Stock Exchange and Board	Stock Abbreviation	Stock Code	Stock Abbreviation before Change
A share	Shanghai Stock Exchange, Science and Technology Innovation Board	Ronbay Technology	688005	/

Contact Person and Contact Information

Contact Person and Contact Information	Secretary of the Board of Directors (Domestic representative of information disclosure)
Name	Ge Xin
Office Address	39 Tanjialing East Road, Yuyao, Zhejiang Province
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2 Main accounting data and financial indicators of the Company

2.1 Main accounting data and financial indicators in the past three years

Unit: RMB Currency: RMB

	2022	2021	Increase or Decrease of this Year over Last Year (%)	2020
Total assets	25,660,046,343.51	14,701,416,639.02	74.54	6,135,115,227.73
Net assets attributable to shareholders of listed companies	6,964,671,593.28	5,428,982,869.88	28.29	4,483,521,663.86
Operating revenue	30,122,995,138.19	10,259,004,445.19	193.62	3,794,556,721.35
Net profit attributable to shareholders of listed companies	1,353,229,887.56	911,041,341.99	48.54	213,064,313.24
Net profit	1,316,756,769.65	808,246,609.29	62.92	160,135,229.76

attributable to shareholders of listed companies after deducting non-recurring gains and losses				
Net cash flow from operating activities	-240,981,050.07	-191,850,584.26	Not applicable	707,926,374.27
Weighted average return on equity (%)	21.94	18.41	Up by 3.53%	4.85
Basic earnings per share (RMB/share)	3.00	2.06	45.63	0.48
Diluted earnings per share (RMB/share)	2.97	2.01	47.76	0.48
R&D investment to operating revenue (%)	1.62	3.50	Down by 1.88%	3.85

2.2 Main quarterly accounting data in the reporting period

Unit: RMB Currency: RMB

	Quarter 1 (January to March)	Quarter 2 (April to June)	Quarter 3 (July to September)	Quarter 4 (October to December)
Operating revenue	5,168,288,343.81	6,384,859,991.55	7,726,794,459.21	10,843,052,343.62
Net profit attributable to shareholders of listed companies	292,538,030.75	443,432,927.82	182,176,780.06	435,082,148.93
Net profit attributable to shareholders of listed companies after deducting non-recurring gains and losses	296,320,715.45	426,387,290.44	188,344,963.29	405,703,800.47
Net cash flow from operating activities	-115,300,138.46	1,065,728,706.56	-439,975,774.17	-751,433,844.00

Notes on differences between quarterly data and disclosed periodic report data

Applicable Not applicable

Section IV Management Discussion and Analysis

1 Main Business, Main Products or Services

The Company is mainly engaged in the R&D, production and marketing of ternary cathode material for lithium batteries and their precursors. The products are mainly used in the manufacturing of lithium batteries, and are mainly applied in the new energy vehicle power batteries, energy storage equipment and electronic products. The leading products are NCM811 series, NCA series, Ni90 series and above ultra-high nickel cathode materials and precursors.

As the first cathode material manufacturer in China to realize the mass production of NCM811 series products and apply them to the international mainstream terminal automobile enterprises, the Company is a world leader in NCM811 series product technology and production scale. The Company has set up a number of advanced production bases in East China, Central China, Southwest China and South Korea, and built the industry chain focusing on the recycling and reusing of cathode materials.

In the future, cathode materials will be developed in the direction of high energy density, safety and low cost. Lithium ferromanganese phosphate and sodium cathode materials will be widely used in low-end power market and energy storage market due to their high cost performance. While further strengthening the competitive advantage of high-nickel materials, the Company will also accelerate the layout of lithium ferromanganese phosphate and sodium cathode materials, and continue to maintain its leading position in market share.

2 Main Business Models

The Company has put in place an independent R&D, procurement, production and marketing system, mainly through the R&D, manufacturing and marketing of ternary cathode materials and their precursors to achieve profitability.

(1) R&D model

The Company has developed a customer-centered, market-oriented R&D system and continued to optimize it. It has further formed a three-level R&D organization of “group level—business level—factory level”, and established a R&D model centered on customer requirements by the business units and combining the R&D of forward-looking new industries and high-end products by the research institute. Through the form of integrated product development (IPD), the Company has established a cross-departmental product development team. The Central Research Institute of the Company has put in place a “horizontal + vertical” all-round R&D system through the integration of the R&D resources of China, Japan and South Korea, and the fusion of resources and capabilities of cutting-edge research, technological innovation, evaluation and testing, resource recovery and engineering development, so as to support the R&D capacity building from original innovation to mass production transformation and process improvement.

In terms of product development and industrialization, the Company has trained a large number of R&D technicians, formed a systematic training mode for new R&D personnel, carried out R&D system training and knowledge sharing to continuously empower technical personnel and provide a steady stream of reserve talents for business expansion. In addition to providing material samples, the Company will recommend the working conditions according to the customers’ battery product development, assist the customers in finalizing the battery system, and jointly promote the development of the product application market.

(2) Procurement model

The procurement model of the Company mainly consists of procurement strategy and supplier management. In terms of procurement strategy, for major raw materials such as nickel, cobalt, manganese

and lithium, the Company has established long-term partnerships with Ganfeng Lithium, Albemarle, GEI, Tianqi Lithium, Huayou Cobalt, Lygend and other domestically and internationally well-known raw material suppliers. A list of relatively stable, properly competing and dynamically adjusted qualified suppliers has been formed to ensure the continuous supply of raw materials of good quality at a reasonable price. In terms of supplier management, the Company has kept procurement under strict control by promoting standardized bidding process, systematic supplier evaluation and other ways to guarantee the reliability of raw materials or equipment and cost competitiveness.

(3) Production model

The Company mainly adopts the production model based on sales, developing a sound production process control procedure, and establishing a set of rapid and effective customer order processes centered on and oriented towards customer orders and medium- and long-term requirements. After signing an order with the customer, the Company carries out production plan preparation, quality control, shipment, and other whole-process production organization management according to the product technical indicators, quantity and delivery time required by the customer, so as to ensure the consistency of delivery on time and product quality. It helps reduce the inventory levels, so as to keep the costs under reasonable control and improve the efficiency of the use of funds.

The Company has also set certain safety stock levels according to market forecast, production capacity and inventory situation to improve delivery speed and maintain balanced production. For the production of some new materials, the Engineering Department will optimize the layout of production lines and equipment structures according to the special requirements of new products. In terms of quality control, the Production Department has established critical control points according to product performance requirements and related processes, and formulated control items and target values.

(4) Marketing model

The Company mainly adopts the direct sales model, selling the products in both domestic and international markets to downstream customers, mainly large and well-known domestic and international lithium battery manufacturers and other end customers. Due to the complex material system of lithium-ion batteries, the power lithium-ion battery has undergone extensive research and development, and requires high precision control in the manufacturing process. Cathode material suppliers are required to provide supporting technical solutions and professional and timely technical support and services under different material systems and control systems, so as to ensure the excellent quality of lithium-ion battery products.

In order to solve the problems of wide distribution of customers, high development speed and large scale differences, the Company adopts the parallel model of regional management and large project management in management. Four production bases have been established in Hubei, Guizhou, Zhejiang and South Korea, and offices in Ningde, Shenzhen and South Korea have been set up, so as to maximize the use of market resources, realize the rapid response of product technology, product quality and logistics transportation, and quickly respond to customer requirements. For strategic customers, customized production can be further provided according to their specific requirements for product technical parameters, in order to meet their requirements for stable product supply and high performance.

3 Industry conditions

(1) The development stage, basic characteristics and main technical thresholds of the industry

Thanks to the Peak Carbon and Carbon Neutrality policies, new energy is developing rapidly worldwide. The lithium-ion battery cathode material industry in which the Company engaged is a key material industry in the new energy, new material and new energy vehicle segments. The explosion of the new energy vehicle market drives the rapid expansion of the lithium battery industry. The cathode material is one of the key materials in lithium batteries and the cathode material industry is in a stage of rapid

development, featuring robust demand in the current and future downstream and terminal markets.

In 2022, the increasing heat of LFP batteries and high-nickel ternary batteries was seen in the global installed capacity of power batteries, and LMFP and sodium cathode materials started to show an emerging edge. Driven by low cost, high safety and the growth of the energy storage market, the installed capacity of LFP batteries has increased significantly year-on-year. Due to the price restriction of lithium and nickel, high-nickel ternary batteries have a slowdown in permeability growth, but secure a stable position as one of the mainstream technologies thanks to high density energy. LMFP has excellent comprehensive properties and is expected to replace medium- and low-nickel ternary materials and part of lithium iron; sodium cathode materials have been preliminarily applied in energy storage and low-speed power fields, and are expected to replace LFP and lead-acid batteries in some fields by virtue of their low cost, high safety and excellent low-temperature performance.

In the long run, the development of power batteries needs to take into account cost and energy density goals, and the two technical paths represented by LMFP and high-nickel ternary batteries are the most clear. Compared with LFP batteries, LMFP batteries have higher density energy, and retain the safety and low cost properties of LFP cells. The high-nickel battery path can significantly reduce the material cost and ensure high specific capacity. Thanks to the more competitive per-watt-hour cost and the continuous emergence of innovative technology in lithium battery structure, high-nickel batteries, as the mainstream choice of high-end models and long-endurance models of domestic and foreign OEMs, undoubtedly have a trend of long-term expansion in market application.

At present, the high-nickel ternary cathode material industry has a high technical threshold, mainly reflected in the development technical barriers, production technical barriers and quality certification barriers. The high R&D technical threshold requires not only technical modification such as doping and cladding, but also calcination under oxygen, which puts forward increasingly higher requirements on production line design ability, personalized product development ability, technical service ability, and more stringent requirements on humidity control of the production environment, corrosion resistance and automation level of equipment.

Furthermore, high-nickel ternary cathode material is one of the most important raw materials in power batteries, which has a great impact on the core performance and safety performance of power batteries. Considering product stability and safety, automobile enterprises and power battery enterprises have more complex certification and testing procedures for NCM811, NCA and other products. Not only long-term product performance testing is required, the comprehensive supply ability, automatic production management level, low cost, quality stability and consistency of mass production of manufacturers must be assessed in detail. The overall certification cycle will last more than 2 years.

(2) Analysis of the Company's position in the industry and its changes

During the reporting period, based on the new integration strategy, the Company transformed and upgraded into a comprehensive cathode material supplier covering the whole market. While firmly following the high-nickel route, the Company has actively built its presence in LMFP and sodium battery materials, and expanded their application fields to the high-, medium - and low-end power, small power, energy storage and digital markets, growing into the fastest transforming cathode material company.

According to the statistics of ICC, the cumulative output of domestic ternary materials in 2022 was 602,300 tons, up by 51.3% year on year; the cumulative output of domestic high-nickel materials (series 8 and above) was 269,400 tons, up by 76.9% year on year; and the permeability reached 44.7%. The data of ICC further shows that in 2022, the domestic market share of the Company's high-nickel ternary cathode material reached 33%, ranking first in the industry for three consecutive years, and maintaining the first global market share for two consecutive years, taking an expanding lead. During the reporting

period, the Company built a high nickel production capacity of 250,000 tons, leading the world in production capacity, and completed and put into operation the first overseas high-nickel cathode production capacity project in China's cathode industry—the base in South Korea, advancing the production capacity globalization process of China's cathode industry. The leading customers of the Company's high-nickel products are CATL, Farasis, SVOLT, SK on, EVE and other well-known lithium-ion battery manufacturers at home and abroad. As the major high-nickel cathode supplier of CATL and Farasis, the Company has made its high-nickel products into the international mainstream customer supply system, taking the lead in the large-scale application of new energy vehicle power batteries in the world.

In 2022, the Company realized the rapid entry into the LFP track through the acquisition of Skyland. As the only enterprise in the world to achieve mass production of LMFP, the Company is a leader in the development and certification of existing products for many mainstream customers at home and abroad. The background of high lithium price provides a strategic opportunity for the industrialization of sodium-ion batteries. Through self-research, the Company has comprehensively laid out three technical focuses of layered oxide, Prussian blue/white and polyanion, and completed submitted sample verification with dozens of downstream customers. With industry-leading comprehensive development capability and a mass production schedule, the Company has a commanding lead in the fastest commercialization of layered oxide technology route.

In 2023, the Company's production capacity layout in China and Korea will be gradually implemented, and the strategic planning research in Europe and America will be gradually carried out. The Company will continue to promote technology upgrading and new product development and application, firmly implement the new integration strategy, closely follow the industry trend, and consolidate its position as the world's leading cathode material supplier.

(3) The developments and future trends of new technologies, new industries, new business forms and new models during the reporting period

During the reporting period, the new energy vehicle market developed rapidly, and the performance requirements of power batteries and energy storage batteries continued to improve. As one of the cores of new energy power batteries, cathode material directly affects the energy density, cycle, rate, internal resistance and other performance indicators of the batteries, which is a high cost part of lithium/sodium batteries. The following are the developments and future trends of new technologies during the reporting period:

4680 tabless cylindrical battery

The 4680 battery is a new cylindrical battery with a diameter of 46mm and a height of 80mm. It is suitable for medium- and high-end passenger cars. The battery adopts the tabless, large cell design and dry battery technology to improve work efficiency and safety, and offers the advantages of high energy density, low cost, high safety and long life. According to public market data, the single cell capacity and power of the 4680 battery have been increased by 5 and 6 times, respectively, and the driving range has been increased by 16% and the cost has been reduced by 14% at the vehicle level. The large-scale process improvement has achieved efficiency and cost reduction. The core difficulties of this technical path are mainly reflected in the welding process, dry battery electrode technology and yield. In 2022, Tesla 4680 battery increased the product yield from 20% at the beginning to 92% through technological improvement, and the weekly production capacity of 4680 battery reached 868,000, breaking through the bottleneck of yield. The year 2023 is expected to be the first year of mass production.

The high safety 4680 cylindrical battery is adapted to the high density system, its packaging structure features high thermal safety and mechanical properties, greatly reducing the risk of high-nickel ternary applications. Currently, the 4680 battery mainly uses NCM811 cathode, and the subsequent use of ultra-

high nickel Ni90 in replacement of NCM811 can also achieve cost reduction and efficiency. With 4680 battery to achieve mass production and production line expansion, high-nickel ternary material will be the first to benefit. As China's first cathode material manufacturer realizing NCM811 series product mass production and application in the international mainstream terminal carmakers, the Company will embrace broad market opportunities from 4680 battery mass production and application.

Sodium-ion battery

The sodium-ion battery is a secondary battery with a cost reduction of 30% to 40% compared with the LFP battery. It also offers excellent low temperature performance by a capacity retention rate of more than 88% at the -20°C low temperature test, much higher than that of the LFP battery. In the future, it is expected to be widely used in energy storage, low-speed electric vehicles, two-wheeled electric vehicles, electric boats and other fields with low energy density requirements but strong cost sensitivity. In the context of high-priced lithium and the outburst of key energy storage scenarios in 2022, sodium-ion batteries with similar working principles to lithium-ion batteries flourished. Demand pull and technical thrust have become the key points of sodium-ion battery industrialization from 0 to 1.

The current mainstream cathode materials for sodium-ion batteries are layered oxides, Prussian blue analogues, polyanionic compounds, etc. With its simple preparation method, easy mass production and conversion, high energy density and high rate performance, layered oxide is the main layout focus of domestic enterprises and is expected to be the first to realize industrialization. Prussian compounds have the advantages of low cost and high specific mass energy density. Polyanionic compounds offer the main advantages of low cost of raw materials, stable structure and good cycling performance. At present, the sodium-ion battery cathode material presents the situation of co-existence of multiple routes.

Now the Company is comprehensively laying out three technical focuses of layered oxide, Prussian blue/white and polyanion, and has completed submitted sample verification with dozens of downstream customers, showing industry-leading comprehensive development capability and mass production schedule.

LMFP battery

The LMFP battery is an upgrade of the LFP battery, and a new type of phosphate lithium-ion battery cathode material formed by doping a certain proportion of manganese on the basis of lithium iron phosphate. High energy density is a core strength of the LMFP battery compared with the LFP battery. The LMFP battery has an energy density of about 15% higher, offering a higher voltage platform and retaining the safety and low-cost properties of LFP cells. With the progress of modification technologies such as carbon coating, nanocrystallization and lithium supplement technology, the conductive properties that restricted the development of LMFP in the past have been improved, and the industrialization process has been accelerated. According to market estimates, LMFP will be stably mass produced in China in 2023, and extensively applied to electric vehicles. The Company has realized the mass production of LMP through the acquisition of Skyland, and is actively working with downstream customers on certification, topping the list in development progress.

Lithium-rich manganese-based cathode material

The lithium-rich manganese-based material features cheap manganese as the main transition metal element, with a discharge specific capacity up to 250 mAh/g or above, and a higher mass energy density compared with LFP, NCM and NCA. With a current actual capacity of about 1.5 times of that of currently commercialized cathode materials, the lithium-rich manganese-based material can improve the power battery's life. With a nickel content only about 30% of that of the ternary materials and no cobalt element, it requires low cost.

At present, the lithium-rich manganese-based material is still in the research and development stage, and technical problems such as improving magnification performance, inhibiting voltage attenuation of

the cycle and storage process are yet to be addressed. If technical bottlenecks are solved, the lithium-rich manganese-based material will become the next generation lithium-ion battery cathode material with great potential, to be widely used in automobiles, energy storage, small power and digital fields.

Solid-state battery

The biggest difference between solid state lithium batteries and traditional lithium batteries is the electrolytes. While traditional lithium batteries use a diaphragm and electrolyte with a liquid substance in between, solid-state batteries utilize solid electrolyte. Solid-state lithium batteries are safer and have a higher energy density than traditional lithium batteries.

Solid-state battery electrolytes in use or close to commercial use include polymers, sulfides and oxides. Among them, the oxide electrolyte has the best air stability and is widely used in solid-state batteries with a solid-liquid mixed system, requiring low cost. The main drawback is that the interface contact problem has not been solved perfectly. Oxide electrolytes are more suitable for power batteries. Now most of the domestic enterprises choose the technical route of the oxide system, with steadily improved manufacturing processes and modification levels. Furthermore, sulfide system electrolytes with ionic conductivity comparable to liquid electrolytes solution shows higher rate performance in the all-solid-state system. The leading cell and carmakers in Japan, Korea, Europe and the United States are actively rolling out the sulfide all-solid-state battery business. Due to the narrow electrochemical window based on sulfide electrolyte and poor stability of electrolyte and cathode and anode interfaces, further improvements are required to realize industrialization.

Based on the intrinsic defects of electrolytes, the Company has prepared solid electrolytes with high ionic conductivity, developed the ternary cathode material suitable for solid-state batteries, improved the compatibility of the ternary cathode and solid-state electrolyte interface, which has been highly recognized by downstream customers at home and abroad.

4 Business situation analysis and discussion

During the reporting period, the global new energy vehicle market demand maintained a rapid growth trend. According to the data in the White Paper on the Development of China's New Energy Vehicle Industry (2023), global sales of new energy vehicles reached 10.824 million vehicles in 2022, up by 61.6% year on year. According to statistics from GGII and other organizations, the global shipments of ternary cathode materials in 2022 were about 980,000 tons, with a year-on-year growth of 55%. The global shipments of high-nickel cathode materials were about 328,000 tons, with a year-on-year growth of 64%. The market of the ternary cathode materials continues the trend of high-nickel cathode materials, and the product upgrading keeps accelerating.

Benefiting from the robust demand from downstream battery enterprises, the accelerated launch of high energy density models by mainstream carmakers in Europe and the United States, as well as the continuous improvement of profitability through technological progress and supply chain optimization, the Company achieved a significant improvement in performance in 2022. During the reporting period, the Company realized the operating revenue of RMB 30.123 billion, with a year-on-year growth of 193.62%; the net profit attributable to listed companies reached RMB 1.353 billion, up by 48.54% year on year.

(1) Ranked first in the global market share of ternary materials, constantly optimizing the product and customer structure

In 2022, the total sales volume of the Company's high-nickel series 8 and above ternary cathode products came up to nearly 90,000 tons, with a year-on-year growth of 70.13%. Among them, cutting-edge materials such as high-nickel, low-cobalt and ultra-high nickel materials had achieved a 1,000-ton shipment. The data from ICC further shows that in 2022, the domestic market share of the Company's

high-nickel ternary cathode material reached 33%, ranking first in the industry for three consecutive years, and maintaining the first global market share for two consecutive years, taking an expanding lead. During the reporting period, the Company built a high nickel production capacity of 250,000 tons, and four cathode material bases in Ezhou and Xiantao of Hubei Province, Zunyi of Guizhou Province and Chungju in South Korea.

During the reporting period, the Company actively expanded the customer base, and established partnerships with domestic new-energy vehicle enterprises and mainstream European and American carmakers to develop cutting-edge products.

(2) Merged and conducted an integrated layout of LMFP enterprises, taking an industry-leading position in product technology, market development, production and marketing scale.

During the reporting period, the Company formally built its presence in LMFP through the acquisition of Skyland and its subsidiaries. With an existing production capacity of 6200 tons/year, the Company is the only enterprise to achieve mass production of LMFP, producing 3C digital, power batteries and other products in the market, and taking a leading position in product development for many well-known battery customers at home and abroad.

(3) Launched the pioneering new strategic product—sodium-ion battery cathode material, showing industry-leading comprehensive development capability and a mass production schedule.

As a new battery material, the sodium-ion battery cathode material has significantly improved product competitiveness compared with traditional materials, and is expected to be extensively applied in the low-end power battery market, energy storage market, 3C and small power market in the future. Now the Company has comprehensively laid out three technical focuses of layered oxide, Prussian blue/white and polyanion, and has completed submitted sample verification with dozens of downstream customers, with a sodium-ion battery cathode material capacity of about 1.5 tons/year. During the reporting period, the Company cumulatively sold dozens of tons of sodium-ion battery cathode materials, showing industry-leading comprehensive development capability and a mass production schedule.

(4) Advanced the strategic layout of globalization rapidly, and made remarkable progress in the development of production capacity and customers in South Korea.

The Company's Chungju Base in South Korea is the first high-nickel cathode production capacity project built by Chinese enterprises overseas, and South Korea's production capacity is obviously scarce.

On the one hand, Chinese exports to the United States will be subject to a 25% tariff, while exports to Europe will be subject to a 6% tariff. South Korean products exported to European and American markets are entitled to the zero tariff policy.

On the other hand, under the Inflation Reduction Act announced in August 2022, the United States plans to invest 370 billion U.S. dollars in the climate and clean energy sectors, and some 20 countries, including South Korea and Australia, that have signed free trade agreements with the U.S. will receive a certain percentage of subsidies for their products. Compared with those produced by the China precursor material production base, the precursors produced by the Chungju Base in South Korea meet the requirements of the Act on qualified key minerals, and can receive a tax credit of 3,750 U.S. dollars/vehicle. Compared with the cathode materials produced by the China cathode material production base, the cathode materials produced by the Chungju Base in South Korea do not fall under the prohibitions stipulated in the Act and are expected to receive a tax credit of U.S. dollars/vehicle for battery packs under the Act. Therefore, the production capacity layout of the Chungju Base in South Korea is of strategic significance.

During the reporting period, the Chungju Base in South Korea has built a production capacity of 20,000 tons/year of high-nickel cathode materials, and the production line has completed the audit and verification by mainstream customers in Japan, South Korea and the United States, which has the basis for volume expansion. At present, the penetration rate of new energy vehicles in European and North

American markets is significantly lower than that in China. As the Company is advancing its internationalization strategy rapidly, its products are mainly applied in overseas markets, embracing huge space for future development.

(5) Unfolded research on cutting-edge technologies, taking a lead in R&D

The Company's high-nickel and ultra-high nickel multi-product sequence R&D technologies lead the industry. The cutting-edge lithium-rich manganese-based samples have passed customer certification, and the pilot test of the spinel nickel manganese product has been completed. The related products manifest excellent performance in capacity, recycling and rate. The quality and energy density of solid-state battery cathode materials have greatly improved, which has been recognized by domestic and international solid-state battery customers.

The problems of residual alkali and high pH value, serious gas production, poor recycling of sodium-ion battery layered oxide cathode materials have been overcome, and the Company has taken the lead in realizing the mass production finalization of several types of sodium-ion battery layered oxide cathode materials in the industry. Various technical indicators have been evaluated by different customers and are at the forefront of the industry.

The LMFP materials have been certified by multiple mainstream customers at home and abroad, taking the lead in the world to achieve 1,000-ton mass production and shipment. Meanwhile, technical breakthroughs in the new generation high ferromanganese ratio products and LFM and ternary blended products have been made, realizing small-scale mass production, and the products of some customers have entered the batch stability test stage.

(6) Set a new high in the number of patents applied, establishing an improved intellectual property protection system

The Company has constantly strengthened scientific research and innovation efforts, and trained scientific research and innovation talents. As it develops new materials and new technologies while deepening the advantages of high-nickel materials, a wide intellectual property protection network centered on the upstream and downstream of the industrial chain has been established. In 2022, the Company applied for 604 patents in total, 346 of which were awarded, continuously upgrading the Intelligence First concept. The Company has obtained a large number of independent intellectual property rights centered on the product layout, which can provide a strong guarantee to expand the market for all products.

(7) Comprehensively practiced the New Integration strategy

The New Integration strategy is an upgraded systematic competition strategy on the basis of traditional integration competition, and it is an upgrade of the business model. During the reporting period, the New Integration strategy of the Company was fully implemented to integrate resources to the greatest extent and build a competitive new energy industry chain.

The most important role of the New Integration strategy is to strengthen supply chain management. Through investment along the industrial chain and the establishment of strategic partnerships with upstream and downstream enterprises, the stable procurement and cost advantages of upstream raw materials are guaranteed, so as to achieve bulk centralized supply to downstream customers. In 2022, the Company invested in Lygend through Ronbay Battery Triangle Fund, and signed a Long-term Order Purchase Agreement with Lygend, forming the double cooperation of long-term purchase and capital. The Company has further established long-term supply relationship with CALT and WeLion, carried out in-depth cooperation in battery and material technology, products and supply chain, and jointly promoted the rapid development of high-nickel batteries in the terminal market.

In 2022, the Company concluded a series of strategic cooperation agreements with multiple levels of government, including Hubei Province, Xiantao City and Hanyang District of Wuhan, aiming to build a

systematic layout of Ronbay Technology in Hubei Province, including multi-dimensional deep cooperation with production bases, Central China headquarters, New Energy Technology Research Institute and equity investment fund.

5 R&D description

(1) R&D achievements obtained during the reporting period

During the reporting period, the Company comprehensively promoted the concept of integrated product development in the Central Research Institute and related business departments, greatly optimized the collaboration between the Research Institute and various departments of the Company, and made the organizational structure more reasonable. Furthermore, it also planned the Central China New Energy Technology Research Institute and other regional R&D centers and entered into the Cooperation Agreement between Hubei New Energy Technology Research Institute and Central China Regional Headquarters with Hanyang District People's Government, Wuhan. In order to improve the cell and material detection and analysis abilities, the Company carried out battery chemistry research, and increased investment in cathode and precursor detection and electrochemical mechanism research. In view of the rapid development of the new energy industry chain (peers, customers, industry technology status and development trend, etc.), the Market Analysis Business Department was established to collect and analyze industry information to be used as the basis for the direction of research and development technology improvement, effectively supporting the Company's material development and mass production introduction speed, and significantly improving the research and development strength.

During the reporting period, the Company applied for 357 new patents. Among them, 136 domestic patents for invention and 221 domestic utility model patents; the Company received 208 new patents awarded, including 12 domestic patents for invention and 196 domestic utility model patents. The details are as follows:

Serial No.	Disclosure (Announcement) Number/Application Number	Title	Patent Type	Legal Status
1	201910309120.2	A sulfide solid electrolyte with high ionic conductivity based on the liquid phase method and its preparation method	Invention	Awarded
2	201910309109.6	A sulfide solid electrolyte with high ionic conductivity based on wet ball milling and its preparation method	Invention	Awarded
3	201811604074.0	A high-nickel cathode material with a single particle orientation arrangement and its preparation method	Invention	Awarded
4	201811454811.3	A ternary cathode material and its preparation method	Invention	Awarded
5	202010397121.X	A preparation method for a narrow particle size distribution ternary precursor	Invention	Awarded
6	202110217122.6	A nano lithium zirconium fluoride in-situ cladded high-nickel ternary cathode material and its preparation	Invention	Awarded

		method and lithium-ion batteries		
7	201911250375.2	A high rate monocrystalline type NCMA cathode material with cladding layer and its preparation method	Invention	Awarded
8	202110453689.3	A spinel type single-crystalline cobalt-free high voltage lithium nickel-manganate cathode material and its preparation method and lithium-ion batteries	Invention	Awarded
9	202010455679.9	A modified high specific capacity high-nickel ternary cathode material and its preparation method	Invention	Awarded
10	202110565272.6	A high-nickel precursor material and its preparation method and application	Invention	Awarded
11	201910952471.5	A method for preparing an inner tank of a rotary kiln based on the built-in heating mode	Invention	Awarded
12	202110326303.2	A preparation method of manganese vanadium lithium phosphate cathode material	Invention	Awarded

(2) List of intellectual property acquired during the reporting period

	New Increase this Year		Cumulative Number	
	Patents Applied	Patents Awarded	Patents Applied	Patents Awarded
Patents for Invention	136	12	261	72
Utility Model Patents	221	196	343	274
Total	357	208	604	346

(3) Ongoing Projects

Serial No.	Project Name	Estimated Total Investment	Current Investment Amount	Cumulative Investment Amount	Progress or Periodic Results	Intended Goal	Technical Level	Application Prospects
1	Ni96 New Product Development	1,620.00	630.81	1,258.48	Mass production stage	To develop high capacity, low cost, excellent high temperature cycle ultra-high-nickel polycrystalline products (Ni \geq 92%).	Product full battery test reveals 1/3C capacity \geq 215mAh/g, showing low cost high capacity and good cycle life.	Mainly applied in new energy vehicles and secondarily applied in digital products
2	Multi-element High Energy Density NCMA	2,970.00	848.36	2,039.58	Production line commissioning stage	To make NCMA cathode materials with high capacity and stable structure.	Product full battery test reveals 1/3C capacity \geq 205mAh/g; the thermal stability of the product is significantly improved, and the cycle and storage performance are further optimized; main product process is finalized.	Mainly applied in new energy vehicles and secondarily applied in digital products
3	Series 6 High Voltage Material Development	1,047.00	503.27	503.27	Production line commissioning stage	To develop series 6 high voltage single-crystal materials up to the performance requirements of low cost, long cycle and high safety.	Full battery test under high voltage reveals 1/3C capacity up to 195 mAh/g; the good cycle life and safety performance can meet the use requirements of new energy vehicles.	Mainly applied in new energy vehicles and secondarily applied in digital products
4	Series 8 Low	1,365.00	431.45	547.30	Pilot run stage	The overall	Product full battery test	Mainly applied in

	Cost New Product Development					performance of the products prepared by the precursor system reaches the level, the cost is effectively reduced and the competitiveness of the series 8 products improved.	reveals 1/3C capacity $\geq 200\text{mAh/g}$; the physical and chemical properties of the products have been verified by the client side, reaching the leading level of similar products in the industry.	new energy vehicles and secondarily applied in digital products
5	Series 7 New Product Development	2,855.00	414.57	1,092.32	Pilot run stage	To develop series 7 products with high energy density and high temperature performance under high voltage.	Full battery test under the voltage of 4.35V reveals 1/3C capacity $\geq 196\text{mAh/g}$;	Mainly applied in new energy vehicles and secondarily applied in digital products
6	Low Cobalt Long Cycle Lithium-Rich Manganese-Based Cathode Material Development	875.00	329.87	377.02	Pilot test stage	To develop lithium-rich manganese-based cathode materials with an energy density equivalent to NCM811 and good cycle.	The low cobalt material buckle battery is 0.33C current density at room temperature and discharge specific capacity $\geq 225\text{mAh/g}$; low cost and high capacity, suitable for liquid battery, the sample has been sent to many domestic and international cell enterprises for testing.	Mainly applied in new energy vehicles and secondarily applied in digital products
7	High Voltage Nickel Manganese	918.00	212.31	252.47	Pilot test stage	To develop a high voltage nickel-manganese binary	The prepared cathode material has a soft package full gram capacity	Mainly applied in new energy vehicles and

	Cathode Material					product with high energy density, low cost and long cycle to replace medium- and low- nickel and lithium iron phosphate materials.	≥132mAh/g, excellent cycle performance, rate/low temperature performance. At present, the Company has worked with many customers at home and abroad to solve the battery matching problem of high voltage system.	secondarily applied in electric tools and digital products
8	Sodium-ion Battery Cathode material Development	2,888.00	763.45	763.45	Production line commissioning stage	To develop the sodium-ion battery cathode material with low cost and excellent electrochemical performance.	The capacity, cycle and gas production performance of sodium-ion battery cathode material have reached the industry-leading level in the full battery test, and can meet the needs of low-speed new energy vehicles and electric two-wheelers.	Applications in new energy vehicles, small power market and energy storage, broad market prospects
9	Series 9 Single-crystal Cathode Material Development	2,087.00	555.13	555.13	Production line commissioning stage	To develop high-nickel series 9 single-crystal material with high energy density and excellent cycle performance to meet the product performance requirements of	Product full battery test reveals 1/3C capacity ≥208mAh/g; comprehensive performance has met customer requirements for tonnage supply.	Mainly applied in new energy vehicles and secondarily applied in digital products

						customers.		
10	Series 8 Low Cost Single-crystal Material	2,632.00	1,588.78	1,891.48	Pilot run stage	To develop high-nickle single-crystal materials with lost cost, high energy density and excellent cycle.	The physical and chemical properties of the products have been verified by the client side, reaching the leading level of similar products in the industry.	Mainly applied in new energy vehicles and secondarily applied in digital products
11	Sodium-Ion Battery Cathode Material	1,123.00	209.89	964.80	Pilot test stage	To develop sodium-ion battery layered oxide and Prussian blue analogue cathode materials with low cost and excellent electrochemical performance.	The capacity, cycle and gas production performance of layered cathode material have reached the industry-leading level in the full battery test, and can meet the needs of low-speed new energy vehicles and electric two-wheelers.	Mainly applied in low-speed new energy vehicles, electric two-wheelers and energy storage
12	LMFP Cathode Material Development	315.00	120.87	120.87	Pilot test stage	To develop a high energy density and high voltage LMFP cathode material to meet customer needs.	The high energy density LMFP cathode material is developed and its performance indexes are industry-leading.	Mainly applied in new energy vehicles and secondarily applied in small power products

13	All Solid-state Battery Cathode Material	1,629.00	218.62	1,550.32	Small experiment stage	<p>Through the research and development of solid-state battery technology, master the cathode material suitable for solid-state battery system and the production technology of solid-state electrolyte, and develop at least one high-nickel cathode material suitable for solid-state battery. The lithium-ion conductivity of the solid-state electrolyte produced should be higher than 1mS/cm, and the solid-state battery produced should reach the domestic advanced level in energy density, cycle performance and safety performance.</p>	<p>Through the research and development of solid-state battery technology, the conductivity of solid-state electrolyte ions prepared has exceeded the project target, realizing stable production in kg, and delivering industrially advanced product performance. At present, a number of modified high-nickel ternary materials have been developed to achieve compatibility between the cathode and electrolyte interface, and offer industry-leading performance indicators.</p>	Applied in 3C/EV, and mainly in EV
14	NCM90 Precursor	1,781.00	1,193.48	1,545.23	Mass production	To develop NCM precursor products	The products are uniformly-shaped with no	Mainly applied in new energy

	Development				stage	with high capacity, high cycle life and high safety (Ni≥90%).	agglomeration and good sphericity, which reduces the control difficulty in the sintering process. The final cathode material has the characteristics of high capacity and good circulation.	vehicles and secondarily applied in digital products
15	NI96 Precursor Development	2,855.00	1,248.43	1,490.64	Pilot test stage	To develop the ultra-high-nickel precursors with high capacity and excellent cycle performance to improve gas production, internal resistance and high temperature cycle performance.	The uniformly-shaped products offer good dispersion, narrower particle size distribution width than that of the conventional batch process; the final cathode material featuring low gas production and excellent high temperature cycle can be used in soft pack cells.	Mainly applied in new energy vehicles and secondarily applied in digital products
16	Series 8 Low Cost Precursor Development	2,724.00	111.80	1,859.98	Pilot test stage	To develop series 8 NCM precursor products with low cost, high safety and high cycle life.	The products provide good crystallization, no cracking and good particle consistency, solving the high-nickel and low cobalt product capacity and cycle problems.	Mainly applied in new energy vehicles and secondarily applied in digital products
17	Development of Self-comminution	1,600.00	100.13	100.13	Mass production stage	The lithium hydroxide after comminution has a	The comminute device is used to pulverize and regulate the composition	Applied in the whole process from crushing to

	Process of Lithium Hydroxide					stable particle size, and a change in the content of the main elements, with industry-leading magnetic foreign matter, moisture increment and CO2 increment levels.	of compressed gas. Material moisture, magnetic foreign matter and CO2 levels are effectively controlled, reaching the advanced level of similar products in the industry.	packaging of lithium salt raw materials for the ternary cathode materials
18	Development of Sintering Process for High-nickel Ternary Polycrystalline Materials	13,000.00	5,528.81	7,002.96	Mass production stage	There is no significant difference between the material performance indicators and the conventional process; the single line production capacity is greatly improved, and the material processing cost is significantly reduced.	The production capacity and human efficiency are improved through technological innovation to reach the advanced level of similar products in the industry.	Mainly applied in new energy vehicles and secondarily applied in digital products
19	Design and Development of Full Battery Soft Pack Battery Detection Process	2,400.00	30.66	129.24	Mass production stage	Able to test the internal resistance, rate properties, cycle properties and gas storage/ production properties and other electrochemical performance	The production and testing capabilities of soft pack batteries have reached the professional level of cell factories.	Study the application effect of ternary cathode material in terminal, and provide effective data technical support for

						indicators such as of more than 100 batteries per day.		research and development, improvement and enhancement of material properties
20	Development of Sintering Process for High-nickel Ternary Single-crystal Materials	3,000.00	2,251.92	2,267.41	Mass production stage	To shorten the existing sintering period, improve the single line production capacity, and lay a foundation for high-nickel single-crystal increment.	The normally-shaped and evenly-distributed products have reached the normal level of the same period in the physical and chemical indicators of the quality line, electrical properties, cycle and gas production. After process exploration, optimization and solidification should be carried out to form a unified standard.	Mainly applied in new energy vehicles and secondarily applied in digital products
Total	/	49,684.00	17,292.61	26,312.08	/	/	/	/

6 Discussion and analysis of the Company's future development

6.1 Industry pattern and trend

It is imperative to transform the global energy pattern into new energy. With the rapid development of new energy vehicles, energy storage and other fields, the market forecasts that the lithium battery industry will grow by more than 10 times in the next decade.

The development of the industry drives innovation in battery structure. The 4680 cylindrical battery and CTP battery further innovate the power battery structure and promote the wide application of high-nickel and ultra-high-nickel cathode material technology. Tesla has launched the 4680 cylindrical battery which increases the energy of a single battery by 5 times, improves the mileage by 16%, and reduces the cost by 14%. It will be released in large quantities soon. CALT has released the CTP battery (CTP3.0) which has a maximum volume space utilization rate of 72%, increases the energy density of the ternary battery system to 255Wh/kg, and offers a vehicle endurance over 1000km. The mass production of the CTP battery has been realized, which will further drive demand for the Company's high-nickel and ultra-high-nickel cathode material products.

The Company anticipates that cathode materials will be developed in the direction of low cost and high energy density while meeting high safety requirements. High-nickel ternary batteries are mainly used in the high-end market for new energy vehicles. According to statistics from GGII and other organizations, the penetration rate of high-nickel materials (series 8 and above) in China will reach 44.7% in 2022, and the ternary market will continue the high-nickel trend, while product upgrading will continue to accelerate. With the maturity of high-nickel technology, the improvement of yield and the scale development of material system, high energy density advantage will become prominent, the battery comprehensive cost will be reduced and the market share of high-nickel batteries will be further increased. The highly cost-effective LMFP and sodium-ion battery cathode materials and other products will be used in the medium- and low-end power battery market and energy storage market, 3C digital and small power market.

China's lithium battery and material enterprises are playing an increasingly important role in the global new energy industry chain. According to SNE Research, the global installed capacity of power batteries in new energy vehicles reached 517.9Gwh in 2022, revealing a year-on-year increase of 71.8%. SNE's data showed that six Chinese companies were included in the list of the world's top 10 battery suppliers in 2022, taking up a combined market share of 60.4%, up by 12% year-on-year. According to statistics from GGII and other organizations, the global shipments of ternary cathode materials in 2022 were about 980,000 tons, of which 550,000 tons were shipped by China, accounting for about 56% of the world's total shipments. In 2022, the Company's ternary cathode materials had a global market share of about 9%, showing a year-on-year increase of 1%, and ranking first in the world. In the future, the global market share of Chinese enterprises will further increase.

Overseas market demand is growing rapidly, and global reach has become the consensus of the industry. According to the data of the European Automobile Manufacturers Association, the registered volume of new energy passenger vehicles in 30 European countries reached 2.589 million in 2022, up by 14.6% year on year. As revealed by the data of the Alliance for Automotive Innovation, 913,000 new energy light vehicles were sold in the United States in 2022, up by 41.1% year on year. With the increasing global attention to and efforts in new energy industry chain, countries have also developed relevant industrial policies to cultivate local enterprises (such as the IRA Act of the United States). The production capacity on overseas bases helps enterprises to improve their anti-risk ability. The Company

has completed and put into operation the 20,000 tons/year high-nickel cathode material base in South Korea. With a total planned production capacity of 100,000 tons/year, the base will serve mainstream battery and terminal customers in Japan, Korea and the United States.

6.2 Corporate development strategy

In 2022, the Company completed its transformation to a comprehensive supplier of cathode materials covering the whole market, and the high-nickel ternary, LMFP and sodium-ion battery materials will achieve comprehensive coverage of the high-end, medium-end and low-end power battery markets, and energy storage market, 3C digital and small power markets. Positioned as an operator in the lithium battery new energy material industry, the Company focuses on high-nickel cathode materials, and builds its presence in LMFP and sodium-ion battery cathode materials to establish a competitive circular industry chain centered on the battery triangle. The Company carries out comprehensive innovation with a focus on the main business of cathode materials that involves product innovation, process and equipment innovation, supply chain innovation and management innovation, so as to establish industry barriers between competitors; on the other hand, through strategic cooperation and capital cooperation, business synergy, innovation synergy and strategic synergy are established with upstream and downstream enterprises, so as to improve the efficiency of the whole industrial chain, reduce costs, build a competitive industrial chain and achieve win-win results for partners in the industrial chain.

In 2023, the Company will accelerate the strategic layout of globalization which is reflected not only in the industrial layout, but also in the overall spatial layout. In the future, the Company will explore other overseas markets except China and South Korea. From the perspective of global markets, the penetration rate of new energy vehicles in China in 2022 was close to 30%, significantly higher than that in other markets. With the improvement of China's battery technology and consumption level, the share of high-nickel cathode materials in the Chinese medium and high-end markets will be further improved. At present, the Company's high-nickel products are sold to overseas terminal markets through its main battery customers. In 2022, the penetration rate of new energy vehicles in the European market was over 20%, and that in the American market was less than 10%, revealing a great room for growth in the overseas markets. As the Company's production base in South Korea is relatively rare in the country, the Company will accelerate the expansion of this base to better serve international customers.

The Company will adhere to the development mission of developing new energy industry, improving human living environment, creating a better future for the business and employees, and giving back to the community. The vision of the Company is to build a highly commercially civilized new energy industry cluster with first-class innovation ability.

6.3 Business plan

The new energy industry has maintained rapid growth and is expected to have a growth room of more than 10 times in the future. In 2022, the global installed capacity of lithium batteries for new energy vehicles was 517GWh. With the increasing demand for new energy vehicles and the outbreak of energy storage market, the installed capacity of lithium batteries is expected to exceed 6000GWh in 2030, which represents a growth room of more than 10 times compared with 2022.

The current penetration rate of electrification in Europe and America is low, revealing significant structural development opportunities in the overseas markets. In 2022, the penetration rate of new energy vehicles in 30 European countries was 22.9% and that in the United States was 6.7%. The transformation of energy structure to new energy in Europe and the United States and the increase of penetration rate of electric vehicles are inevitable. Currently, the overall European and American markets have greater opportunities, and the installed capacity of lithium batteries is growing at a faster rate.

The competition pattern of the cathode material industry will be further concentrated from dispersion. From 2018 to 2022, the market share of ternary cathode CR5 increased from 48.2% to 59%. In the future, with the finalization of product technology and the continuous expansion of market and product competitive advantages of large-scale leading enterprises, the market share will be further concentrated.

(1) Upgraded from a high-nickel leader to a platform-oriented and collectivized comprehensive supplier of cathode materials, promoting comprehensive coverage of market applications

In July 2022, the Company held a strategic press conference and announced that it would transform from a high-nickel leader into a platform-oriented and collectivized comprehensive supplier of cathode materials. With products covering high-nickel materials, ferromanganese lithium and sodium-ion battery materials, and applications covering high-end, medium-end and low-end power, small power, energy storage and digital markets, the Company is the only and fastest growing cathode material company in the industry.

In 2023, the Company will further maintain the leading edge in series 8 high-nickel products, actively expand new customers and improve the market share. Meanwhile, the Company will promote the mass production of series 9 ultra-high-nickel products with higher energy density, and complete the development of high-voltage and high-nickel material and NCA product lines, so as to create a comprehensive high-nickel product sequence and further strengthen the product lead.

Lithium ferromanganese product is the next generation upgraded product of LFP, offering the advantages of higher energy density and lower cost. With the upgrading of product technology and the expansion of production capacity, lithium ferromanganese product is expected to replace LFP in the power battery market in the future. The Company shipped nearly 1,000 tons of lithium ferromanganese products last year, ranking first in sales. In 2023, the Company will further integrate internal and external resources to promote the mass production of lithium ferromanganese products.

In sodium-ion battery cathode materials, the Company has comprehensively laid out three technical focuses of layered oxide, Prussian blue/white and polyanion, and completed submitted sample verification with dozens of downstream customers, manifesting an industry-leading level in comprehensive development capability and mass production progress. The Company has achieved a number of technological breakthroughs in relation to low residual alkali, high pressure compaction, long cycle, low gas production and low cost, that have been successfully applied to the finalized products. It is expected to achieve mass production in 2023.

(2) Strengthening the global reach and accelerating the expansion of overseas production capacity and international customers

In 2022, the Company built a 20,000 tons/year high-nickel cathode material capacity in Chungju, South Korea. The South Korean Base is the first factory completed and put into operation overseas by a Chinese cathode enterprise, which is a crucial step in the global layout of Ronbay and truly starts the process of capacity globalization of Ronbay and even China's cathode industry. The base will continue to expand to a capacity of 100,000 tons, with production lines covering the full range of high-nickel, ultra-high-nickel NCM, NCA and NCMA products.

The completion and production of the South Korean Base will help Ronbay better serve the overseas customers. Based on the South Korean Base, Ronbay will better respond to the needs of international customers in the areas of technology research and development, manufacturing and business communication. The release of production capacity in South Korea will promote the strategic interaction between Ronbay and customers in Japan and South Korea, and influence the markets of Europe, the United States and Southeast Asia, serving the overseas factories of international customers and Chinese customers, truly embracing customers and serving

the world. Overseas capacity also helps the Company reduce supply chain risks, ensure supply chain sustainability, provide product and supply chain diversification solutions, and create value for customers.

The South Korean Base will help the Company establish an overseas operations system and realize a comprehensive international transformation. The smooth operation of the South Korean Base will help Rongbai further promote the internationalization of operations, supply chains, platforms and teams. The Company is now preparing a North American office and will expand to Europe in the future.

(3) Resolutely implementing the New Integration strategy through industrial investment

During the reporting period, the Company formally built its presence in lithium ferromanganese through the acquisition of Skyland and its subsidiaries. Skyland has a number of stable customers in the electric two-wheeler market. In the four-wheeler power battery market, Skyland has conducted in-depth material research and development cooperation with many well-known battery manufacturers at home and abroad, and accumulated a profound customer base. This acquisition will help the Company expand the cathode material market, enrich the product structure, and achieve full coverage of “high-end, medium-end and low-end” materials. The Company will also continue to consolidate front-end resources through investment and acquisition, and prepare for the next generation technology and process, so as to enhance the comprehensive competitiveness of phosphate products such as lithium ferromanganese products.

During the reporting period, the Company invested in Lygend through Hubei Ronbay Battery Triangle One Equity Investment Fund Partnership (Limited Partnership) and entered into the Long-term Order Purchase Agreement with it. According to the agreement, Lygend, as the core supplier of nickel-cobalt wet process intermediate (MHP) and nickel-cobalt sulfate of the Company, will steadily supply 20% of its total annual shipments of battery nickel-cobalt products (MHP or nickel-cobalt sulfate or cobalt sulfate) to the Company every year.

Meanwhile, Lygend will give priority to supply the surplus shipments beyond the 20% battery nickel-cobalt products to Ronbay. The execution of the Long-term Order Purchase Agreement will help the Company improve its main business operation ability.

The Company will firmly implement the New Integration strategy, analyze the best supply chain path through the in-depth control of the whole industrial chain, and then establish long-term strategic partnerships through investing in the upstream and downstream parts of the industrial chain, build the lowest cost supply chain, and achieve sound operation and profit.

The Company will continue to focus on the development progress of global nickel, lithium and other resources, select projects with cost advantages, carry out cooperation in the form of equity participation, and increase access to low-priced preferential resources. On the one hand, the Company can form effective synergies with existing industries, on the other hand, the Company can further share the growth of the whole industry through industrial investment.

(4) Continuing cutting-edge research and development and mass production, and improving the intellectual property protection system

The Company will study cutting-edge technologies, develop high-nickel cathode materials suitable for all-solid-state batteries, and make breakthroughs in the higher capacity ultra-high nickel technology. Continuous efforts will be made to increase R&D investment and R&D personnel recruitment, improve the comprehensive technical strength. This year, the Company will start the construction of Hubei New Energy Technology Research Institute and build the South Korean Research Institute, and establish transnational R&D institutions. In terms of intellectual property, we plan to complete more than 200 patent applications and more

than 10 PCT patent applications in 2023, and advance the establishment of the intellectual property management system.

(5) Comprehensively deepening reforms in organizational development and advancing the implementation of the “three-system” architecture

In order to better serve the implementation of the New Integration strategy, the Company began to carry out platform-based and collectivized reform in 2022, established and strengthened the enterprise operation and management center, and promoted its overall collaborative operation through the PMO (Project Management Office) process system. In 2023, the reform of the three organizational systems will be promoted to build a complete cadre and talent development system. On the basis of optimizing the existing business unit system, the Company will deepen the organizational reform of the three systems of market, R&D and delivery, and establish a profession-oriented business organization and operation mechanism. Meanwhile, the Company will strengthen the building of the cadre team, establish a matching four-level partner incentive mechanism, and build a competitive talent system by attracting top-notch talents from around the world, which will help further realize the integrated operations of the whole Company and achieve the market objectives more agilely.

Section V Corporate Governance

1 Notes on corporate governance

During the reporting period, the Company continuously improved its corporate governance structure and standardized its operations in accordance with the requirements of *The Company Law*, *The Securities Law*, *The Governance Guidelines for Listed Companies*, and *The Rules for Stock Listing on the Science and Innovation Board of Shanghai Stock Exchange* and other laws, regulations, rules and normative documents. The actual situation of corporate governance conforms to the requirements of *The Code of Governance for Listed Companies* and other normative documents issued by the China Securities Regulatory Commission.

1. Regarding shareholders and shareholders’ meetings: The Company has formulated the rules of procedure for the shareholders’ meetings, thus able to convene and hold the shareholders’ meetings in strict accordance with the requirements of the standard opinions of the shareholders’ meetings. In terms of venue selection, more shareholders should be invited to attend the shareholders’ meetings and exercise their voting rights. The Company can treat all shareholders equally and ensure that shareholders exercise their rights.

2. Regarding the relationship between controlling shareholders and listed companies: The code of conduct of controlling shareholders guarantees that the controlling shareholders do not directly or indirectly interfere with the decision-making and business activities of the Company beyond the shareholders’ meeting; The Company and the controlling shareholders are “independent” in terms of personnel, assets, finance, organization and business. The Board of Directors, the Board of Supervisors and the internal organization of the Company operate independently. The Company’s connected transaction follow legal procedures, adopt a rational price and fulfill the obligation of information disclosure.

3. Regarding directors and the Board of Directors: The Company elects the directors in strict accordance with the appointment procedures for directors stipulated in the Articles of Association; the director number and composition of the Board of Directors shall meet the requirements of laws and regulations; the Board of Directors of the Company has formulated the rules of procedure for the Board of Directors, so that the directors of the Company can attend the Board of Directors and the shareholders’ meetings with a serious and responsible attitude, familiarize themselves with relevant laws and regulations, and understand the rights, obligations

and responsibilities of directors.

4. Regarding the supervisors and the Board of Supervisors: The Board of Supervisors shall strictly implement the relevant provisions of the Company Law and the Articles of Association, and the supervisor number and composition of the Board of Supervisors shall meet the requirements of laws and regulations; The Board of Supervisors of the Company has formulated the rules of procedure for the Board of Supervisors. The supervisors of the Company can conscientiously perform their duties and supervise the Company's finance and the lawful compliance of the directors and senior managers in the execution of duty in the spirit of being responsible to shareholders.

5. Regarding performance evaluation and incentive and constraint mechanism: The Company has established fair and transparent performance and performance evaluation standards and procedures for directors, supervisors and senior managers, and put in place an evaluation mechanism that links compensation with corporate performance and individual performance, thus maintaining the stability of senior managers and core employees, and effectively conducting comprehensive evaluation on each employee, thus ensuring sustainable corporate development.

6. Regarding stakeholders: The Company fully respects the legitimate rights of shareholders, employees, customers, suppliers and other stakeholders, and carries out effective communication and cooperation with them, strengthens the protection of employees' rights and interests, supports the workers' congress and trade union organizations to exercise their functions and powers according to law, and jointly promotes the sustainable and sound corporate development.

7. Regarding information disclosure and transparency: The information disclosure media designated by the Company are *China Securities Journal*, *Shanghai Securities News*, *Securities Daily*, *Securities Times* and the website of Shanghai Stock Exchange. The Company fully fulfills the information disclosure obligations of listed companies in strict accordance with relevant laws, regulations and rules. The directors, supervisors and senior managers of the Company ensure that the information disclosed by the Company is true, accurate, complete, prompt and fair.

2 Information of directors, supervisors, senior managers and core technicians

Name	Position Held (Notes)	Gender	Age	Start Date of Tenure	End Date of Tenure
Bai Houshan	Chairman	Male	59	2018/3/9	2024/6/29
You Sangyul	Vice Chairman	Male	63	2018/3/9	2024/6/29
Zhang Huiqing	Director	Male	56	2018/3/9	2024/6/29
Song Wenlei	Director	Male	57	2021/6/30	2024/6/29
Yu Qingjiao	Independent Director	Male	53	2018/3/9	2024/6/29
Jiang Hui	Independent Director	Female	46	2018/3/9	2024/6/29

Zhao Yiqing	Independent Director	Female	41	2018/3/9	2024/6/29
Zhu Yan	Chairman of the Board of Supervisors	Male	48	2018/3/9	2024/6/29
Shen Cheng	Supervisor	Female	40	2021/6/30	2024/6/29
Chen Ruitang	Supervisor	Male	60	2018/3/9	2024/6/29
Tian Qianli	Financial Director	Male	43	2021/12/4	2024/6/29
Liu Dexian	Deputy General Manager	Male	49	2018/3/24	2024/6/29
Ge Xin	Secretary of the Board of Directors	Female	40	2021/6/30	2024/6/29
Zhang Yuan	Director (Resigned)	Female	39	2021/6/30	2022/10/29
Lee Jonghee	Key Technician	Male	48	2018/3/12	To date
Chen Mingfeng	Key Technician	Male	38	2018/12/31	To date
Yuan Xujun	Key Technician	Male	39	2018/3/12	To date

Notes: Vice Chairman You Sangyul concurrently works as the General Manager of the Company and Director Zhang Huiqing concurrently works as the Deputy General Manager of the Company with the term of office from March 24, 2018 to June 20, 2024 as senior managers.

3 Resumes of directors, supervisors, senior managers and core technicians

Name	Main Work Experience
Bai Houshan	Bai Houshan, male, born in 1964, has Chinese nationality and permanent resident status in the U.S. He graduated from the Central South University as a major in nonferrous metallurgy, and Northeastern University as a major in heavy metal smelting by fire process, and obtained a Master's Degree in Business Administration from Tsinghua University. From September 1984 to July 1987, Mr. Bai worked as a technician in the Metallurgy Office of Shenyang Institute of Mining and Metallurgy. From September 1987 to March 1990, he studied heavy metal smelting by fire process at the Northeastern University; from March 1990 to December 2001, he successively served as assistant engineer, engineer, senior engineer, professor-level senior engineer, team leader, director of Electronic Powder Material Factory, manager of North Mine Electronic Center, deputy director of Metallurgy Office of Shenyang Institute of Mining and Metallurgy; from December 2001 to March 2012, he served as the Director and General

	<p>Manager of Beijing Dangsheng Material Technology Co., Ltd. Since 2013, he has been working as the Chairman and General Manager of Ronbay Holdings. From October 2015 to the present, he has served as Chairman of the Board of Directors of the Company. He has been a director of ZOWEE Technology since May 2022.</p>
You Sangyul	<p>You Sangyul, male, born in 1960, has South Korean nationality. After graduation from the Graduate School of Physics, Hanyang University, he successively worked as a researcher of Samsung SDI Research Institute and Director of Samsung SDI Material and Pharmaceutical Manufacturing Department from August 1984 to November 2002; from January 2003 to April 2005, he served as Technical Consultant and General Manager of JAMR (a Sino-Canadian joint-venture). From May 2005 to December 2009, he worked as General Manager of L&F Lithium Cathode Material Business Unit. In 2010, he founded EMT Corporation and served as Chairman and General Manager. He has been serving as the Vice Chairman and General Manager of the Company from October 2014 to now.</p>
Zhang Huiqing	<p>Zhang Huiqing, male, born in 1967, has Chinese nationality and no permanent resident status overseas. After graduation from the Beijing University of Chemical Technology, he further obtained an on-the-job MBA degree from the University of Science and Technology Beijing. From 1989 to 1998, Mr. Zhang successively served as Production Dispatching Specialist, Deputy Director and Director of Production Planning Office, Manager of Production Department and Manager of General Management Department of Jinan Sanai Fluoro Chemical Co., Ltd.; from January 1999 to February 2000, he worked as Production Manager of Shengbang Lyve Group Business Unit of VICOME Co., Ltd.; after that, he worked as Production Manager of Beijing Friend Chemicals Co., Ltd. from March 2000 to December 2001, and successively served as Factory Director, Assistant General Manager, Production Director, Operations Director, Deputy General Manager/Production Director of Beijing Dangsheng Material Technology Co., Ltd. from 2002 to July 2012. Then he served as Deputy General Manager of Ronbay Holdings from 2013 to 2014 and Director and Deputy General Manager of the Company.</p>
Zhang Yuan	<p>Zhang Yuan, female, born in 1984, has Chinese nationality and no permanent resident status overseas. After graduation from the Central South University as a Bachelor in Administration, she obtained the Doctorate Degree in Administration. From 2012 to October 2016, she served as Strategic Analyst, Macro Analyst and Deputy General Manager of Consulting Department of Minsheng Securities Co., Ltd. From October 2016 to October 2019, she served as Vice President of Fund Management Department of CITIC Construction Investment Management Co., Ltd. After that, she worked as Director of the Chairman's Office, Secretary and Chief Financial Officer of the Board of Directors, and Director successively from November 2019 to October 2022.</p>
Song Wenlei	<p>Song Wenlei, male, born in 1966, has Chinese nationality and no permanent resident status overseas. He graduated from the School of Economics and Management of Tsinghua University with a Master's Degree in Finance. From November 1997 to December 2009, he successively served as General Manager of Research Department, Venture Capital Department and Acquisition and Merger Business of CITIC Securities Co., Ltd.; after that, he worked as Managing Director of Goldstone Investment Co., Ltd. from January 2010 to July 2013; from August 2013 to April 2018, he</p>

	served as Chief Investment Officer and Managing Director of CITIC Construction Investment Management Co., Ltd., and General Manager of CITIC Construction Investment M&A Fund. Since May 2018, he has been working as the General Manager of Strategic Investment and Development Business Unit and the Chief Investment Officer of Strategic Equity Investment of Sunshine Insurance.
Yu Qingjiao	Yu Qingjiao, male, born in 1966, has Chinese nationality and no permanent resident status overseas. Graduating from the Party School of the CPC Central Committee with a Bachelor's degree in Economic Management, he is a member and senior planner of the China Association for the Promotion of Democracy. From September 1995 to July 2003, served as the Assistant Director of the Policy, Law and Regulation Research Office of Shandong Huangdao Power Plant; then he worked as the Market Director of the Air Conditioning Business Unit of AUCMA Holding Co., Ltd. from August 2003 to July 2006; he has been serving as the Chairman of Qingdao Haineng Enterprise Management Planning Co., Ltd. since April 2006, the Chairman of Beijing Haineng Times Cultural Development Co., Ltd. since November 2009; he worked as the Assistant to the Chairman and Spokesperson of the China Battery Industry Association from December 2010 to April 2012, and an Independent Director of RLG Australia from January 2016 to December 2016; and he has been serving as the Chairman of Beijing Xiwang Investment Management Co., Ltd. since January 2017, the Secretary General of the Zhongguancun New Battery Technology Innovation Alliance since August 2018, an Independent Director of Henan Huiqiang New Energy Material Technology Co., Ltd. since July 2019, the Chairman of Beijing Hairong Huida Network Technology Co., Ltd. since June 2020, an Independent Director of Sichuan Changhong New Energy Technology Co., Ltd. since August 2020, the Chairman of Hairong Huida (Qingdao) Network Technology Co., Ltd. since March 2021, and an Independent Director of Ronbay Technology since March 2018.
Jiang Hui	Jiang Hui, female, born in 1977, has Chinese nationality and no permanent resident status overseas. With a Master's Degree in Finance from the University of Sydney, she served as the Director of the Management Department of Ishizuka Electronics Co., Ltd. from 2004 to 2010, and the Human Resource Director of Beijing Dangsheng Material Technology Co., Ltd. from 2010 to 2014; then she has been working as the Deputy General Manager of Shanghai Dingyi Intelligent Technology Co., Ltd. since 2015 and an Independent Director of the Company since March 2018.
Zhao Yiqing	Zhao Yiqing, female, born in 1982, has Chinese nationality and no permanent resident status overseas. She received her Doctorate Degree in Management from Renmin University of China, and has been teaching at the School of Accounting, Capital University of Economics and Business since 2011. From January 2017 to December 2017, she served as an Independent Director of Easy Exchange (Hong Kong) Currency Services Co., Limited. Then she served as an Independent Director of Shenzhen Tongye Technology Co., Ltd. from March 2017 to September 2021; she has been serving as an Independent Director of Wuxi Lutong Viscom Network Co., Ltd. since August 2021; and an Independent Director of the Company since March 2018.
Ge Xin	Ge Xin, female, born in 1983, has Chinese nationality and no permanent resident status overseas. With a Master of Science Degree in Organic Chemistry from Changchun University of Technology, she holds the Qualification Certificates of Securities Practitioner and Fund Practitioner, and Board Secretary of Shanghai Stock Exchange and Shenzhen Stock Exchange. She served as the General Manager of Beijing Dangsheng Material

	Technology Co., Ltd. from July 2009 to May 2013, and the Operations Director of Beijing Ronbay Investment Holding Co., Ltd. from May 2013 to September 2017; then she worked as the Director of Fund Management Department of Hanhua Financial Holding Co., Ltd. Capital Group from October 2017 to November 2018; from November 2018 to June 2021, she served as the Director of the Office of the President, Director of Investor Relations, Director of the Office of the Board of Directors and Chairman of the Board of Supervisors of Woaiwojia Holding Group Co., Ltd.; and she has been working as the Secretary of the Board of Directors and Assistant to the President of the Company since June 2021.
Tian Qianli	Tian Qianli, male, born in 1980, has Chinese nationality and no permanent resident status overseas. After graduation from the International Business School of the University of International Business and Economics with a Master's Degree in Business Administration, he served as a Senior Auditor at Pricewaterhousecoopers Zhongtian Certified Public Accountants, a special general partnership, from August 2006 to June 2010; then he served as the Financial Manager and Senior Manager of Investment and Financing of UPC Wind Asia (Hong Kong) Co., Ltd. from June 2010 to April 2013; from April 2013 to April 2018, he served as the Director of Investment Department of Xinjiang Goldwind Technology Co., Ltd.; from April 2018 to September 2019, he served as the Deputy General Manager and Chief Financial Officer of Jiawo Agricultural Development Co., Ltd.; after that, he worked as the Executive Vice President and Chief Financial Officer of China Oil HBP Technology Co., Ltd. from September 2019 to April 2021; from April to December 2021, he successively served as the General Manager and Chief Financial Officer of the Company's Financial Management Center; and he has been serving as the Financial Officer of the Company since December 2021.
Zhu Yan	Zhu Yan, male, born in 1975, has American nationality. After graduation from Stanford University with an MBA degree, he served as Managing Partner, Head of Investment Department and member of Investment Committee of Tsing Capital from October 2007 to September 2016. Working as the Legal Representative, Executive Director, General Manager and Managing Partner of Hubei Changjiang NIO New Energy Investment Management Co., Ltd. since October 2016, he has also serving as the Chairman of the Board of Supervisors of the Company since March 2018.
Shen Cheng	Shen Cheng, female, born in 1983, has Chinese nationality and no permanent resident status overseas. She received her Bachelor's Degree in Finance from Durham University, UK. From May 2008 to May 2014, she was a representative of the Shanghai Representative Office of the City of London Government. She has been working as the Executive Director of Shanghai Ouqing Xinjin Venture Capital Co., Ltd. since July 2014.
Chen Ruitang	Chen Ruitang, male, born in 1963, has Chinese nationality and no permanent resident status overseas. He graduated from the Central South University with a Bachelor's Degree in Nonferrous Metallurgy. From July 1984 to March 1989, he worked as an engineer at Aluminum Corporation of China Guiyang Aluminum Magnesium Design & Research Institute. From March 1989 to March 2013, he served as the Chief Engineer of Zhengzhou Research Institute of Chalco; then he worked as the Deputy Chief Engineer of Hunan Zhongda Metallurgical Design Institute Co., Ltd. from April 2013 to October 2015. He has been serving as the Chief Engineer of Engineering Design Institute of the Company since October 2015 and the Employee Representative Supervisor of the Company since July 2017.
Liu Dexian	Liu Dexian, male, born in 1974, has Chinese nationality and no permanent resident status overseas. He graduated from Beijing Institute of

	Technology with a Master’s Degree in Materials Science and Engineering. From January 1999 to May 2004, he successively served as the Marketing Engineer, Marketing Manager and Assistant to General Manager of Beijing Dangsheng Material Technology Co., Ltd. Then he worked as the Sales Manager and Regional Sales Director of Base Metals Business Unit of Vale in China from June 2004 to July 2017. He has been working as the General Manager, Assistant President and Deputy General Manager of the International Trade Business Unit of the Company since July 2017.
Lee Jonghee	Lee Jonghee, male, born in 1975, has South Korean nationality. He graduated from Kyushu University in Japan with a Doctorate Degree in Applied Chemistry. From 2002 to 2004, he worked as a research engineer at the Korea Institute of Energy Research; he then served as a research assistant at the Japan Institute of Applied Chemistry from 2004 to 2007 and a senior engineer at Samsung SDI Battery Development Center from 2007 to 2012; during the period from 2012 to 2016, he served as the Chief Engineer of Battery Materials Research Center of GS Energy Co., Ltd. He has been working as the Vice President of the Central Research Institute of the Company since 2017.
Chen Mingfeng	Chen Mingfeng, male, born in 1985, has Chinese nationality and no permanent resident status overseas. He graduated from Qingdao University of Science and Technology with a Bachelor’s Degree in Inorganic Non-metallic Materials Engineering. From July 2007 to January 2014, he served as a R&D Engineer, the Manager of R&D Technology Department, R&D Director, Manufacturing Director and Assistant to General Manager of Jinhe New Materials; from February 2014 to February 2015, he served as the Director of Jinhe New Materials Research Institute; from March 2015 to April 2016, he served as the General Manager and Chief Technical Expert of the Company’s Precursor Plant. After that, he worked as the Deputy General Manager of Zhejiang Meidu Haichuang Lithium Technology Co., Ltd. from May 2016 to April 2018, and the Deputy General Manager of Zhejiang Desheng New Energy Technology Co., Ltd. from May 2018 to December 2018. From December 2018 to date, he has successively served as the General Manager of the Precursor and Renewable Resource Research Center, the General Manager of Strategic Operations Center & the General Manager of Linshan Branch, and the Senior Expert of Central Research Institute.
Yuan Xujun	Yuan Xujun, male, born in 1984, has Chinese nationality and no permanent resident status overseas. He received his Bachelor of Science Degree in Chemistry from Ningbo University. From July 2007 to June 2008, he worked as a research assistant of the Fuel Cell Business Unit of Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences; from July 2008 to September 2014, he successively served as a R&D engineer and the R&D Manager of Jinhe New Materials; engaged in the research and development of cathode materials for lithium-ion batteries since October 2014, he currently works as the Deputy General Manager of Cathode Business Unit.

Section VI Important Matters

1 The Company shall, in accordance with the principle of materiality, disclose the major changes in its business conditions during the reporting period, as well as the events occurred during the reporting period that had a material impact on its business conditions and are expected to have a material impact in the future.

During the reporting period, in response to challenges such as rising raw material prices, the Company provided customers with cutting-edge high-energy density

products through comprehensive industry-leading competitive advantages in relation to technological innovation and product research and development, collaborative customer service, engineering equipment development and production line design, maintained the first-mover advantage and a good market reputation in the industry, and promoted the sustainable corporate development strategy.

During the reporting period, the Company achieved the operating revenue of RMB 30.123 billion, with a year-on-year growth of 193.62%; the net profit attributable to shareholders of listed companies came up to RMB 1.353 billion, up by 48.54% year on year; the net profit attributable to shareholders of listed companies after deducting non-recurring gains and losses was RMB 1.317 billion, up by 62.92% year on year; the net cash outflow from operating activities reached RMB 241 million.

Section VII Changes in Shares and Shareholders

1 Statement of Changes in Shares

1. Unit: Shares

	Before This Change		Increment and Decrement of This Change (+, -)					After This Change	
	Quantity	Ratio (%)	New Shares Issued	Shares Allotted	Shares Converted from Provident Fund	Others	Sub-total	Quantity	Ratio (%)
I. Shares with Sales Restriction Conditions	172,227,332	38.44				-1,763,150	-1,763,150	170,464,182	37.80
1. Shares held by the state	0	0							
2. Shares held by state-owned legal persons	0	0							
3. Shares held by other domestic capital	172,227,332	38.44				-1,763,150	-1,763,150	170,464,182	37.80
incl: shares held by non-state-owned legal persons in Mainland China	167,475,400	37.38						167,475,400	37.14
shares held by natural persons in Mainland China	4,751,932	1.06				-1,763,150	-1,763,150	2,988,782	0.66
4. Shares held by foreign capital	0	0							
incl: shares held by legal persons outside of Mainland China	0	0							

shares held by natural persons outside of Mainland China	0	0							
II. Negotiable Shares without Sales Restriction Conditions	275,810,300	61.56	3,079,372			1,529,411	4,608,783	280,419,083	62.20
1. RMB ordinary shares	275,810,300	61.56	3,079,372			1,529,411	4,608,783	280,419,083	62.20
2. Foreign shares offered in Mainland China									
3. Foreign shares offered outside of Mainland China									
4. Others									
III. Total Number of Shares	448,037,632	100	3,079,372			-233,739	2,845,633	450,883,265	100

Notes:

1. On July 11, 2022, the first installment of 3,079,372 Class II restricted shares first granted under the 2020 Restricted Share Incentive Plan was registered with Shanghai Branch of China Securities Depository and Clearing Co., Ltd. For details, please refer to the Announcement on the Vesting Result and Offering of the First Installment of Restricted Shares First Granted under the 2020 Restricted Share Incentive Plan (2022-054) disclosed by the Company on the Shanghai Stock Exchange website (<http://www.sse.com.cn>) and relevant designated media on July 14, 2022.
2. On July 19, 2022, the first sales restriction period of the partial Class I restricted shares first granted under the 2020 Restricted Share Incentive Plan expired, and 1,529,411 shares started to be circulated. For details, please refer to the Reminder Announcement on the Lift of Sales Restriction for Offering and Circulation of the First Installment of Restricted Shares First Granted under the 2020 Restricted Share Incentive Plan disclosed by the Company on the Shanghai Stock Exchange website (<http://www.sse.com.cn>) and relevant designated media on July 12, 2022 (2022-52).
3. On September 6, 2022, 233,739 partial Class I restricted shares for buyback cancellation under the 2020 Restricted Share Incentive Plan were canceled with

Shanghai Branch of China Securities Depository and Clearing Co., Ltd. For details, please refer to the Announcement on the Implementation of Buyback Cancellation of Partial Class I Restricted Shares under the 2020 and 2021 Share Incentive Plan (2022-079) disclosed by the Company on the Shanghai Stock Exchange website (<http://www.sse.com.cn>) and relevant designated media on September 2, 2022.

In summary, the total number of shares of the Company increased from 448,037,632 to 450,883,265 during the reporting period.

- 2 The total number of common shareholders, the total number of preferred shareholders whose voting rights have been restored, the total number of shareholders holding special voting shares and the top 10 shareholders

Unit: Shares

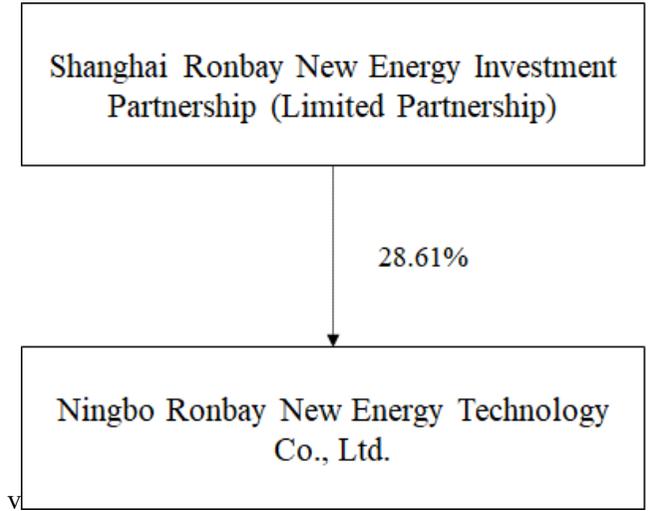
The total number of common shareholders as of the end of the reporting period (Shareholders)								29,917
The total number of common shareholders as of the end of last month prior to the disclosure date of the Annual Report (Shareholders)								28,463
The total number of preferred shareholders whose voting rights have been restored as of the end of the reporting period (Shareholders)								0
The total number of preferred shareholders whose voting rights have been restored as of the end of last month prior to the disclosure date of the Annual Report (Shareholders)								0
The total number of shareholders holding special voting shares as of the end of the reporting period (Shareholders)								0
The total number of shareholders holding special voting shares as of the end of last month prior to the disclosure date of the Annual Report (Shareholders)								0
Shareholding of the top 10 shareholders								
Shareholder Name (Full)	Increment and	Number of	Ratio			Pledge, Mark or Freezing	Nature of	

Name)	Decrement within the Reporting Period	Shares Held at the End of the Period	(%)	Number of Shares with Sales Restriction Conditions Held	Number of Restricted Shares Including Refinancing Shares on Loan	Share Status	Quantity	Shareholder
Shanghai Ronbay New Energy Investment Partnership (Limited Partnership)	0	129,000,000	28.61	129,000,000	129,000,000	None	0	Others
Beijing Ronbay New Energy Investment Development Co., Ltd.	0	13,957,800	3.10	13,957,800	13,957,800	None	0	Non-state-owned Legal Person in Mainland China
Hong Kong Securities Clearing Company Limited	13,200,990	13,200,990	2.93	0	0	None	0	Legal Person outside of Mainland China
China Merchants Bank Company Limited—Huaxia SSE Science and Technology Innovation Board 50 Index Exchange-traded Fund	6,041,894	11,666,329	2.59	0	0	None	0	Others
Huzhou Haiyu Equity Investment Partnership (Limited Partnership)	-3,759,145	10,094,835	2.24	0	0	None	0	Others
Gongqingcheng Rongcheng Investment	-2,300,915	9,940,490	2.20	0	0	None	0	Others

Management Partnership (Limited Partnership)								
Beijing Ronbay New Energy Investment Management Co., Ltd.	0	8,800,000	1.95	8,800,000	8,800,000	None	0	Non-state-owned Legal Person in Mainland China
Beijing Ronbay New Energy Technology Investment Management Co., Ltd.	0	8,240,300	1.83	8,240,300	8,240,300	None	0	Non-state-owned Legal Person in Mainland China
Zunyi Ronbay New Energy Investment Center (Limited Partnership)	0	7,477,300	1.66	7,477,300	7,477,300	None	0	Others
Hubei Changjiang NIO New Energy Industry Development Fund Partnership (Limited Partnership)	0	6,978,961	1.55	0	0	None	0	Others

<p>Notes on the association or concerted action of the above shareholders</p>	<p>Shanghai Ronbay New Energy Investment Partnership (Limited Partnership), Beijing Ronbay New Energy Investment Development Co., Ltd., Beijing Ronbay New Energy Investment Management Co., Ltd., Beijing Ronbay New Energy Technology Investment Management Co., Ltd. and Zunyi Ronbay New Energy Investment Center (Limited Partnership) are under the same control of Bai Houshan, the actual controller of the Company, and Bai Houshan is one of the limited partners of the Company's employee shareholding platform Gongqingcheng Rongcheng Investment Management Partnership (Limited Partnership).</p>
<p>Notes on preferred shareholders whose voting rights have been restored and number of shares held</p>	<p>None</p>

3 Block diagram of the property rights and control relationship between the Company and the controlling shareholder



4 Block diagram of the property rights and control relationship between the Company and the actual controller

