TIANNENG POWER
INTERNATIONAL LIMITED
天能動力國際有限公司

(Incorporated in the Cayman Islands with limited liability)
Stock code：00819

2021
ANNUAL REPORT

CONTENTS

CORPORATE INFORMATION

Executive Directors

Dr. Zhang Tianren *(Chairman)*
Mr. Zhang Aogen
Mr. Shi Borong
Mr. Zhang Kaihong
Mr. Zhou Jianzhong

Independent Non-Executive Directors

Mr. Huang Dongliang
Mr. Wu Feng *(Resigned as an Independent non-executive Director with effect from 30 June 2021)*
Mr. Zhang Yong
Mr. Xia Yongyao *(Appointed as an Independent non-executive Director with effect from 30 June 2021 and subsequently resigned as an Independent non-executive Director with effect from 15 March 2022)*
Mr. Xiao Gang *(Appointed as an Independent non-executive Director with effect from 15 March 2022)*

Audit Committee Members

Mr. Huang Dongliang *(Chairman)*
Mr. Wu Feng *(Resigned as a member of the Audit Committee with effect from 30 June 2021)*
Mr. Zhang Yong
Mr. Xia Yongyao *(Appointed as a member of the Audit Committee with effect from 30 June 2021 and subsequently resigned as a member of the Audit Committee with effect from 15 March 2022)*
Mr. Xiao Gang *(Appointed as a member of the Audit the Audit Committee with effect from 15 March 2022)*

Remuneration Committee Members

Mr. Wu Feng *(Chairman) (Resigned as the chairman of the Remuneration Committee with effect from 30 June 2021)*
Mr. Huang Dongliang
Mr. Zhang Aogen
Mr. Xia Yongyao *(Chairman) (Appointed as the chairman of the Remuneration Committee with effect from 30 June 2021 and subsequently resigned as the chairman of the Remuneration Committee with effect from 15 March 2022)*
Mr. Xiao Gang *(Chairman) (Appointed as the chairman of the Remuneration Committee with effect from 15 March 2022)*

Nomination Committee Members

Dr. Zhang Tianren *(Chairman)*
Mr. Huang Dongliang
Mr. Wu Feng *(Resigned as a member of the Nomination Committee with effect from 30 June 2021)*
Mr. Xia Yongyao *(Appointed as a member of the Nomination Committee with effect from 30 June 2021 and subsequently resigned as a member of the Nomination Committee with effect from 15 March 2022)*
Mr. Xiao Gang *(Appointed as a member of the Nomination Committee with effect from 15 March 2022)*

Company Secretary

Ms. Hui Wai Man Shirley

Auditor

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23/F Tower 2, Enterprise Square Five,
38 Wang Chiu Road, Kowloon Bay,
Kowloon, Hong Kong

Statutory Address

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Hong Kong

Principal Share Registrar

Conyers Trust Company (Cayman) Limited
Cricket Square, Hutchins Drive,
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Grand Cayman
KY1-1111,
Cayman Islands

Hong Kong Branch Share Registrar and Transfer Office

Tricor Investor Services Limited
Level 54, Hopewell Centre
183 Queen's Road East
Hong Kong

Public Relations

Porda Havas International Finance Communications Group
Unit 2301, 23/F, The Centrium,
60 Wyndham Street,
Central,
Hong Kong

Listing Information

The Stock Exchange of Hong Kong Limited
Stock Code: 00819

Company's Website

http://www.tianneng.com.hk

COMPANY PROFILE

Tianneng Power International Limited ("Tianneng" or the "Company"), together with its subsidiaries (the "Group"), is a leading company in the sector of batteries for new-energy vehicles in the People's Republic of China ("China" or the "PRC"), founded in 1986. In 2007, Tianneng was listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange") (Stock Code: 00819.HK). After more than 30 years of development, the Group has become an energy group focusing on the manufacturing and services of motive batteries for light electric vehicles and integrating the research and development (R&D), production and sale of various types of batteries (including motive batteries for electric vehicles, start-stop batteries for automobiles, energy storage batteries and motive batteries for special electric vehicles), the recycling of waste batteries and renewable resources, green and intelligent manufacturing industrial parks, and smart logistics platforms.

FINANCIAL HIGHLIGHTS

(Amounts are expressed in thousand of RMB except per share data)

Consolidated Statement of Comprehensive Income (Note 1)

	2021	2020	2019	2018	2017
Revenue	**85,615,917**	53,525,039	40,613,555	34,750,848	26,903,901
Profit/(Loss) before taxation	**1,836,942**	2,949,728	2,126,041	1,530,650	1,407,588
Taxation	**(285,730)**	(445,153)	(400,091)	(295,474)	(227,356)
Profit/(Loss) for the year	**1,551,212**	2,504,575	1,725,950	1,235,176	1,180,232
Non-controlling interests	**251,260**	27,654	44,123	46,898	1,863
Profit/(Loss) attributable to the owners of the Company	**1,299,952**	2,476,921	1,681,827	1,188,278	1,178,369
Earnings/(Loss) per share (RMB/share)					
– Basic	**1.15**	2.20	1.49	1.05	1.05
– Diluted	**1.13**	2.15	1.47	1.03	1.02

Consolidated Statement of Financial Position (Note 2)

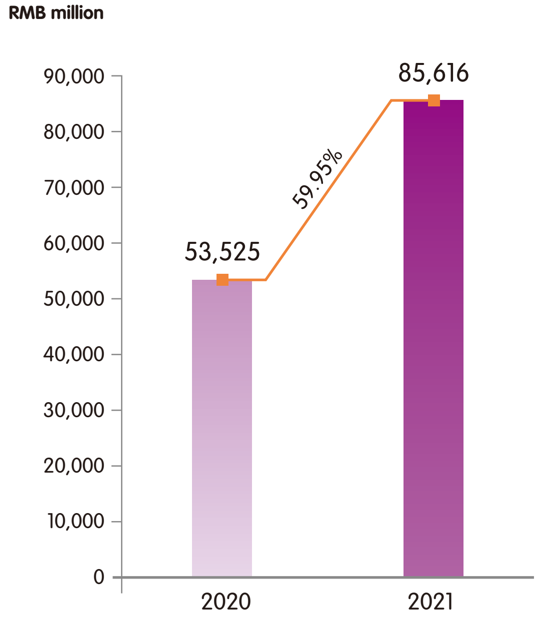
	Year ended 31 December				
	2021	2020	2019	2018	2017
Total assets	**32,738,944**	23,200,435	19,130,327	16,856,292	13,981,698
Total liabilities	**17,362,012**	13,741,146	11,843,811	11,467,094	8,918,212
Net assets/Total equity	**15,376,932**	9,459,289	7,286,516	5,389,198	5,063,486

Notes:

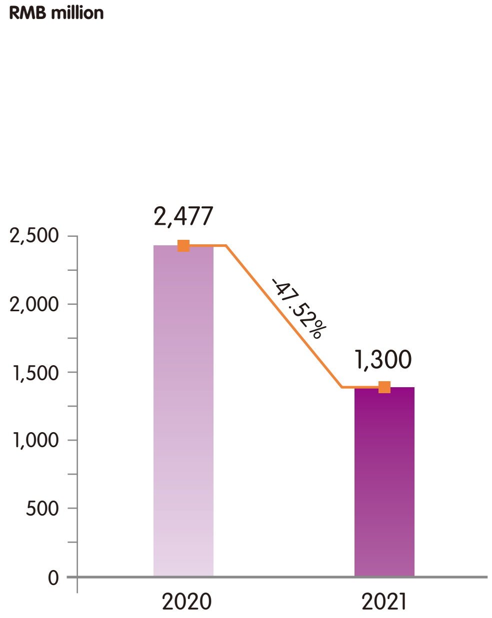
1. The results for the year ended 31 December 2017 are set out on page 61 of the Annual Report 2017 of the Company. The results for the years ended 31 December 2018 and 2019 are set out on page 56 of the Annual Report 2019 of the Company. The results for the year ended 31 December 2020 is set out on page 62 of the Annual Report 2020 of the Company. The results for the year ended 31 December 2021 is set out on page 72 of the Annual Report 2021 of the Company. All such information is extracted from the financial statements prepared under Hong Kong Financial Reporting Standards ("HKFRSs").

2. The consolidated statement of financial position as at 31 December 2017 are set out on page 62 of the Annual Report 2017 of the Company. The consolidated statement of financial position as at 31 December 2018 and 2019 are set out on page 57 of the Annual Report 2019 of the Company. The consolidated statement of financial position as at 31 December 2020 is set out on page 63 of the Annual Report 2020 of the Company. The consolidated statement of financial position as at 31 December 2021 is set out on page 73 of the Annual Report 2021 of the Company. All such information is extracted from the financial statements prepared under HKFRSs.

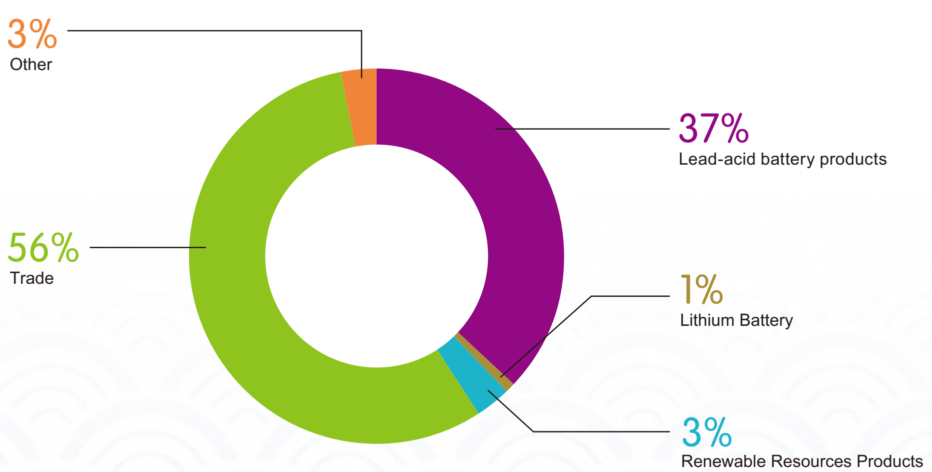
SALES TURNOVER



PROFIT ATTRIBUTABLE TO SHAREHOLDERS

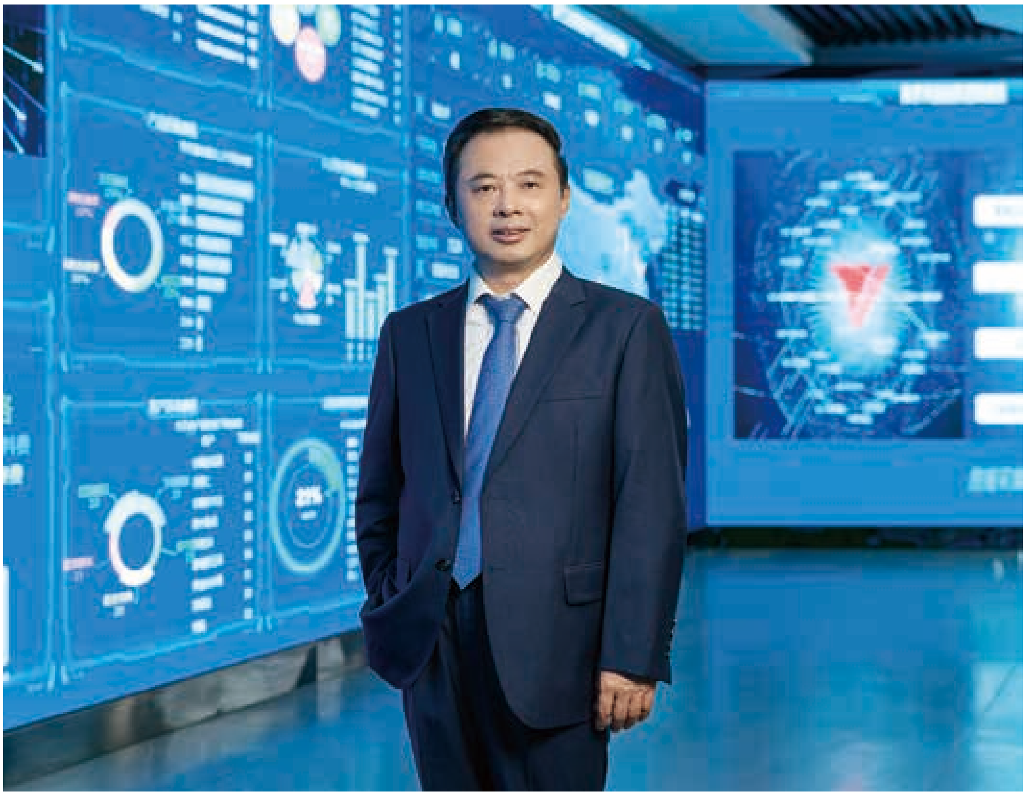


SEGMENT TURNOVER



* Lead-acid battery products mainly applied in bicycle (tricycle) battery, four-wheeler battery, tubular battery, starter battery, energy storage battery and standby battery.

CHAIRMAN'S STATEMENT



Adhering to the Practice of Digitalization and Innovation Driven
Improving Our Overall Layout of Sustainable Development

Dear shareholders:

2021 was an important year in the overall upgrade and development of Tianneng. Under the backdrop of global energy transition, facing an industry situation with both opportunities and challenges and the development task in the new stage, Tianneng adheres to its operating vision of "sustainable development in an ecological environment", overcame difficulties and forged ahead, continued to promote its strategy of globalization, and formed the "Industry, Technology, Capital" three-wheel-driven overall layout. The comprehensive strength of the Group has reached a new level, and its ability of scientific research and innovation have also been improved.

Profit Attributable to Shareholders and Dividend during the Year

For the year ended 31 December 2021, the Company's consolidated turnover was approximately RMB85,616 million, representing an increase of 59.95% as compared to that of the previous year. Profit attributable to owners of the Company was approximately RMB1,300 million, representing a decrease of approximately 47.52% as compared to that of the previous year. Basic earnings per share was approximately RMB1.15. Tianneng Power proposes to declare a cash dividend of HK40 cents per ordinary share (the "Share(s)") held by the shareholders of Tianneng (the "Shareholders"). The proposal shall be subject to the consideration and approval by the Shareholders at the annual general meeting to be held on 27 May 2022.

2021: Dedicated in the Informatization and Ecological Development, Focus on Energy Development in Stages

Tianneng Power (Stock code: 00819.HK) was successfully listed on the Hang Seng Shanghai-Shenzhen-Hong Kong Autonomous and Electric Vehicles Index in April 2021 and its subsidiary Tianneng Share (Stock code: 688819.SH) was listed on the FTSE China A 400 Index and the CSI STAR&CHINEXT 50 Index in June 2021. On top of enhancing its principle business of high-end eco-friendly battery, the Company will explores opportunities of developing products with resource recycling and high-energy cleaning energy, invests in the research and development of the new generation of lithium batteries and hydrogen fuel industry clusters, thereby forming a strategic path of "Focus on Major Business, Moderate Diversification" and strive to achieve Tianneng's globalization goal with high-quality and sustainable development of its business.

Seizing the market development opportunities and continue to promote the growth of the Group. With the implementation of the New National Standard Policy, the Group constantly made improvement in the R&D investment and product development in the field of high-end eco-friendly battery, launched a product series that fully met the requirements of New National Standard and market demands, combined digitalized experience to provide better services, and continued to improve the leading status in the field. For lithium-ion batteries, the Group targeted at the industrial ecological track, focused on the market opportunities such as mini power battery, energy storage, electric vehicle, and industrial chain, thereby built a core closed loop. For hydrogen power, the Group actively promoted the core technology breakthrough of hydrogen fuel cell and industrial development, successfully developed the high-power metal plate reactors and long-life span graphite plate reactor, as well as formalized strategic cooperation with Zhejiang Geely New Energy Commercial Vehicle Group Co., Ltd. (浙江吉利新能源商用車集團有限公司), Nanjing Golden Dragon Bus Co., Ltd. (南京金龍客車製造有限公司), Yadea Technology Group Co., Ltd. (雅迪科技集團有限公司) and other enterprises, thereby continue to explore the reserve of cutting-edge technologies. Meanwhile, for the recycling sector, the Group further optimized the business model of cloud recycling platform, strengthened the energize capability of the industrial chain, leveraged technologies of the Internet, digitalized reconstruction of the traditional recycling industry through advanced technologies such as big data, artificial intelligence and the Internet of Things, to meet the demands of customers and end-users on battery recycling and echelon utilisation.

Constantly improving our R&D system. Tianneng insisted on perceiving technological R&D as the primary productive force, strengthened the formation of its international and local R&D talent team, and enhanced the international competitiveness of the Group. The Group has built a national postdoctoral R&D institute and direct affiliated R&D organizations, enhanced new technology reserves, developed solutions for key issues and difficulties, promoted the demonstration and application of mature technologies, accelerated its frontier layout in solid-state batteries, sodium-ion batteries and fuel cells and other fields, expanded and enriched the innovative resources of strategic partnerships, as well as explored and established Tianneng's unique and brand new technology and innovation model.

In 2021, the Group participated in the formulation of 16 technical standards such as national standards and industry standards, and the first international standard prepared partly by the Company has been officially issued and implemented. Over 500 projects and honours were completed and declared by Tianneng, and it also completed over 600 patent applications, as well as received honorary titles such as National Green Design Product, National Green Supply Chain Management Enterprise (國家綠色供應鏈管理企業), Chinese Patent Excellence Award (中國專利優秀獎), National Supply Chain Innovation and Application Demonstration Enterprises (全國供應鏈創新與應用示範企業), and Advanced Entity for Technology Innovation of Light Industry in China (中國輕工業科技創新先進集體). Key projects such as Ministry of Industry and Information Technology ("MIIT") Innovative Development Project of Industrial Internet (工信部工業互聯網創新發展工程) and Ministry of Science and Technology's Key National R&D Project (科技部國家重點研發計劃) have achieved successful progress. Major projects such as MIIT's Green Supplier Bidding (工信部綠色供應商招標) and MIIT's National Fund for the Development of Electronic Information (工信部國家電子資訊發展基金) have passed the acceptance..

Implementing digitalized manufacturing. The Group has commenced upgrades on intelligence manufacturing, attributed by integrated construction empowered by big data and science, the Group promoted the development of R&D, production and marketing of industrial Internet systems and mid- and back-office management informatization, thereby gradually materialising the goal of "Modernised Intelligence Factories". 40 digitalization projects were completed throughout 2021. The Wushan digital model factory of Tianneng in Huzhou City, Zhejiang Province commenced trial operation, undertook the "Brain for Industries (產業大腦)" project of the motive battery industry in Zhejiang Province, striving towards the vision of "Digitalized Tianneng Ecosystem".

Proactively develop our internal and external circulation, so as to position ourselves for global development. Tianneng has formed a layout of sixteen major production bases in seven provinces in China to further expand production capacity. Meanwhile, the Group has implemented the national Belt and Road Initiative, optimized its resources allocation in the international market and expanded its market. The Group comprehensively increased its market share overseas through diversified paths. The Group focused on major markets such as Western Europe, Southeast Asia, North America and Oceania and strengthened its overseas business mechanism. At present, the Group has established offices in Vietnam and India in Asia and various countries in Africa, to promote international exchange and actively seeking new opportunities, new cooperations and new projects.

2022: Creating a Comprehensive Blueprint for High-quality Development

The transformation process of the global new energy landscape and structure continues to accelerate. In the face of global climate change and environmental requirements, we undertake the mission of "eco-friendly" development. Tianneng will uphold the concept of "Technology-led" to pursue breakthroughs, strengthen the development of its R&D system, accelerate the integration of the industrial chain, improve its overall competitiveness in the market, and make larger contributions to the development of global green smart energy as well as the ultimate realization of the "Carbon Neutrality" Goal.

In 2022, the Group will continue to concentrate on making progress while maintaining stability as its general tone, adhence to its principle of market demand-oriented, and further optimizing its strategy of sustainable development. Tianneng would take lead management as the backbone of the Company's development, and it will focus on its principal business development, strive to establish new business in energy batteries, resources recycling and emerging industry, aiming to enhance its overall high-quality development.

Meanwhile, the Group will make full use of capital to empower the industry, leveraging our platform advantages and deepen industrial cooperation. Tianneng will carry out industry integration, optimize resource allocation and with its attention on the strategic goals to improve the industrial ecosystem of the Group while raising the technology content in our products so as to strengthen the Group's core competitiveness.

In addition, the Group will accelerate the promotion of the "intelligentization, platform-building, globalization" strategy. Focusing on the three chain management systems of "industrial chain, supply chain, value chain" and accurately seize the opportunities of the national strategies of "Dual Circulation" and "Dual Carbon". We strive to build the world's leading ecological chain systems, namely smart energy, resources recycling and modern servicing industries, targeting to create a high-quality sustainable development blueprint for Tianneng.

Appreciation

I would like to take this opportunity to extend my sincere gratitude to all staff for their outstanding contribution and to management for their continuous effort. It is the constant effort of each and every member that facilitates the Group to achieve remarkable results. I would also like to express my gratitude to all shareholders, customers and business partners for their long-term support and affirmation.

Zhang Tianren
Chairman

Hong Kong, 30 March 2022

MANAGEMENT DISCUSSION AND ANALYSIS

OPERATION REVIEW

2021 is the start of China's "14th Five-Year Plan" and also the first year of the "Carbon Peaking" and "Carbon Neutrality" ("Dual Carbon") plan. In 2021, China issued a series of policies at both the state and local level to better achieve the "Dual Carbon" goal. Those policies boostered the development of environmental and energy-saving industries, the construction of new power systems, and the upgrading and transformation of China's manufacturing industry. As a world-leading green energy solution provider, Tianneng has participated in the state and global "Carbon Peaking" and "Carbon Neutrality" process, to fulfill its missions in green commuting, new energy storage, and recycling.

Under the leadership of the Group's management and the support from governments at all levels, all the staff of the Group worked in a down-to-earth manner and dedicated themselves to the long-term prospect, laying the foundation and fostering the growth drivers for a sustainable, healthy and high-quality development. During the reporting period, the Group realised a turnover of approximately RMB85,616 million and a net profit of approximately RMB1,551 million, representing an increase of 59.95% and a decrease of 38.06% respectively year-on-year, primarily because the raw and auxiliary materials' prices of the Company's major products recorded a year-on-year increase. The major raw and auxiliary materials of the Company include lead metal and alloy, PE plastics, as well as anode and cathode materials, diaphragm and electrolyte for lithium-ion batteries.

In 2021, Tianneng forged ahead with determination, made a series of innovations and breakthroughs in the dynamic environment, implemented the strategy of "intelligence, platform-building, globalization", utilized "Industry, Technology, Capital" as the development guidance, and achieved good operating results.

During the reporting period, the Group saw synergetic development of lead batteries and lithium-ion batteries, proceeded with the industrialisation of fuel cells steadily, and deeply deployed five application scenarios, including micro-mobility, passenger vehicles, commercial vehicles, smart energy storage, and recycling. It provided multi-technology, multi-product and systematic green energy solutions for each scenario and created a new recycling business model with a fully closed loop of the production, application, echelon utilization, recycling, and regeneration for batteries.

Currently, the Group has established production bases and logistics systems in places where the demands for batteries are vigorous, such as Zhejiang, Anhui and Henan provinces. The total battery production capacity exceeds 100 GWh. Three internationally advanced industrial parks for circular economy have been built and operated, which can process over 700,000 tons of used lead batteries and lithium-ion batteries every year. In tandem with that, Tianneng actively developed its internal and external circulation and established offices in Vietnam, India and multiple African countries, as the Company actively engages itself in global operations. The Group's overall strength ranked among the Global 500 New Energy Companies in 2021, Fortune China 500 in 2021 by the Fortune magazine, Top 500 Chinese Civilian-run Enterprises in 2021, Top 500 Chinese Manufacturing Enterprises in 2021 and other rankings. On the list of 2021 Fortune China 500 released in July 2021, Tianneng ranked 17th in terms of return on equity (ROE).

In recent years, Tianneng has capitalized on the opportunities of the digital economy to build a user ecosystem operation platform, an industrial Internet of Things platform and an enterprise intelligent manufacturing platform, forming a "Cloud-based Tianneng" (雲上天能). During the process of digital transformation, Tianneng created a user-centric green ecosystem model based on the characteristics of the industry and its own product attributes. For example, Tianneng independently developed a "green energy full life cycle management service platform", which is not only applicable to Tianneng's smart factories in cross-provincial production, order tracking, inventory control, smart logistics, etc., but is also useful for industrial chain collaboration. The platform greatly improves production efficiency, saves consumption of energy and raw materials, and at the same time ensures product quality and reduces defective rates, enabling flexible production. During the reporting period, the Group was selected into the list of "Future Factory" pilot enterprises in Zhejiang in 2021 and the list of provincial key industrial internet platform projects in 2021 announced by the Economic and Information Technology Department of Zhejiang Province.

Tianneng attaches great importance to R&D and has established a three-tier R&D structure that comprises Central Research Institute, Technology Centres of Business Divisions, and Technology Departments of Production Bases, each of which has its own focus and synergizes with each other. Tianneng has also established an open innovation mechanism, and successively established open innovation centers in the Guangdong-Hong Kong-Macau Great Bay Area, the Yangtze River Delta, and the Beijing-Tianjin-Hebei Region. Consolidating the lead battery business, the Group vigorously develops the lithium-ion battery business, steadily facilitates the industrialization of fuel cells, and continues to explore new battery technologies such as sodium-ion batteries and solid-state batteries. During the reporting period, Tianneng independently developed the Power Durable core technology system, launched the Balance Tech (衡科技) series lithium-ion manganese iron phosphate (LMFP) batteries and mass-produced liquid-cooled lithium-ion energy storage pack. Nanjing Jinlong Passenger Buses and Geely Passenger Buses, both equipped with Tianneng hydrogen fuel cell system, listed into the "Catalogue of Power-Driven Vehicle Manufacturing Enterprises and Products" of MIIT. The key technologies for recycling of used motive batteries were listed in the 2021 Zhejiang Provincial Key Technology Innovation Project Plan. Up to now, Tianneng has obtained more than 2,900 authorized national patents and has won 9 Chinese Patent Awards. Tianneng ranked 53rd on the List of Top 500 Invention Patents of Civilian-run Enterprise in 2021 (2021年民營企業發明專利500家榜單) and ranked 83rd on the List of Top 500 R&D Investment of Civilian-run Enterprise in 2021 (2021 年民營企業研發投入500家榜單) of All-China Federation of Industry and Commerce (中華全國工商業聯合會).

The Group will continue to cultivate scientific research, stimulate innovation, and devote itself to the R&D and application of new technologies, new techniques and new materials to meet the demands of diverse markets and customers and shape the core competitiveness for the Company's high-quality development.

Tianneng launched the first generation of Power Durable core technology system during the 4th "819 Battery Day"

In recent years, Tianneng has been striving to realize the transformation from a product supplier to a solution provider and from an accessory manufacturer to a manufacturing consumer brand. Tianneng is undergoing a transition from "TO B" to "TO B+C" dual drive mode at both the brand and product levels. For example, the Group launched the "Tianneng Smart Commute platform" (天能智行平台), which provided battery charging and replacement users with a complete set of solutions including battery sales, battery leasing, shopping mall service, and financial support. Another example is that the Group has developed the "Tianneng Recycling Cloud" platform (天能回收雲平台) to delayer recycling channels and digitalize customers' information. Moreover, the Group has also built an online and offline integrated sales model through the "Tianneng Retail" platform (天能零售通平台) and "Integrated Vehicle for Sales and Service" (銷服一體專用車), which provided customized distribution and sales services for terminals and opened up new opportunities for brand communication. Based on its stable and stellar product quality, systematic after-sales service, and strong sales base, "Tianneng" has become a well-known brand for new energy batteries.

The Company has been further recognised by capital markets for the robust growth of its performance over recent years. During the reporting period, the Company was included in the Hang Seng Shanghai-Shenzhen-Hong Kong Autonomous and Electric Vehicles Index and became the sole Hong Kong listed battery firm selected into such index. In January 2021, the Company's holding subsidiary, Tianneng Battery Group Co., Ltd. ("Tianneng Share", Stock code: 688819.SH), was listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange. In June 2021, Tianneng Share was included in the China A400 Index by FTSE (the second-largest global index compilation company) and amongst the constituent stocks of the STAR & CHINEXT 50 Index compiled by China Securities Index Co., Ltd (中證指數有限公司).

The " Integrated Vehicle for Service and Sales" provides
timely response to the needs of end customers

Tianneng actively builds an eco-friendly enterprise and embeds the concept of sustainable development throughout the entire life cycle of its production. Up to now, the Group has been selected for more than 40 green manufacturing lists, including the national green factories, green design products, green supply chain management enterprises. Tianneng has been actively making plans to support farmers and students constantly to fulfill its social responsibilities with actions. In Xinchuan Village, Zhejiang, Tianneng carried out the "Strengthening the Village and Helping the People" campaign, to lead the villagers to the path of common prosperity. Tianneng has also formed a one-to-one funding relationship with Dadong Village in Anhui and Jijia Village in Guizhou near the production bases to build poverty alleviation workshops. Excellent environmental, social and corporate governance (ESG) allowed Tianneng to be included in the "Excellent Case of Chinese Civilian-run Enterprise for Social Responsibility" (中國民營企業社會責任優秀案例) and the "Top 100 Chinese Civilian-run Enterprises for Social Responsibility" (中國民營企業社會責任100強), and to obtain the AA rating for ESG from MSCI.

The Group is mainly engaged in three lines of business, namely, the R&D, manufacturing and sale of 1) high-end eco-friendly batteries; 2) new energy batteries; 3) renewable new materials.

I. High-end eco-friendly batteries

High-end eco-friendly batteries are a series of sealed maintenance-free lead battery products created by Tianneng relying on its R&D and technology innovations.

Lead batteries have the advantages of cost-effective, safety, stability, and high recyclability. They are the most commonly used batteries for vehicles and equipment such as light electric vehicles, special electric vehicles and start-stop systems in automobiles. Lead batteries enjoyed a stable overall growth in market demand during the reporting period. According to the National Bureau of Statistics, the cumulative output of lead batteries in China of 2021 was 251.9 million kVAh, representing a year-on-year increase of 13.7%.

Tianneng is a leading enterprise in lead batteries, and enjoys wide brand recognition and quality recognition among consumers. According to the data from China Battery Industry Association, Tianneng's market share exceeded 40% in lead motive batteries for domestic light electric vehicles, and has sustained a momentum of year-on-year growth in market share over the past few years.

During the reporting period, the operating revenue of high-end eco-friendly battery business amounted to approximately RMB31,821 million, representing an increase of 12.29% year-on-year. As the Group's key business, high-end eco-friendly batteries have maintained the momentum of high-quality sustainable development.

In recent years, apart from establishing production bases and logistics systems in the eastern coastal areas of China, the Group has also strategically deployed in Southwest China and utilized local raw material advantages and logistics advantages to exert its influence in Yunnan, Guizhou, Guangxi, and other markets, as well as prepare for the Southeast Asian market. During the reporting period, Tianneng Guizhou Taijiang Base (Phase II) was put into operation, which marked another milestone in the rapid development of Taijiang company.

Tianneng Green Intelligent Manufacturing Factory

1. Two-wheeled and three-wheeled electric vehicles battery

Lead batteries are currently one of the most commonly used batteries for two-wheeled and three-wheeled electric vehicles such as electric bicycles, tricycles, light motorcycles, and scooters, with primary application to the power systems of vehicles for daily commuting, logistics and express delivery. Thanks to their safety, stability, and good cost-effective performance as well as the rigidity of demand, lead batteries have grown into essential consumer goods for commuting among the Chinese public with a huge market size. In recent years, the thriving new economy has driven the demand for two-wheeled and three-wheeled electric vehicles in short-distance delivery and express delivery. Meanwhile, the COVID-19 pandemic has propelled the transformation to the "one person one vehicle" commuting mode for end consumers. Thus, the market of two-wheeled and three-wheeled electric vehicles has embraced another peak in its growth.

According to the White Paper for the Development of the Chinese Two-wheeled Electric Vehicles Industry (2021) (《中國電動二輪車行業發展白皮書(2021)》) published by EVTank, a research institute, a total of 48.34 million two-wheeled electric vehicles were produced in 2020, representing a year-on-year increase of approximately 27.22%. Given the aggregate ownership of 340 million vehicles, approximately every four Chinese people own a two-wheeled electric vehicle. Due to the frequent daily use of the consumers, lead batteries need replacement every 0.5 to 3 years, generating an even greater replacement demand from a massive base of individual consumers.

The Company has established a wide range of deep-rooted sales and after-sales service channels. Following years of development and accumulation, the Company has built an integrated marketing and after-sales network of over 3,000 distributors that covers extensive end markets. In recent years, the Company has been engaged in an ongoing digital transformation of its sales network. Tianneng has launched the Tabor Cloud (泰博雲), a digital tool to help its distributors to know about the latest market supply and demand situation and to grasp market growth points immediately. Distributors' capabilities of business operation have been sharpened and refined.

On 15 April 2019, China formally implemented the Safety Technical Specifications for Electric Bicycles GB17761-2018 as the new national standard (the "New National Standard"), which specifies such standards as the weight and maximum hourly speed for electric bicycles. The implementation of the New National Standard has promoted the healthy growth of the light electric vehicles market and fostered the elimination of the outdated production capacity of the industry.

Amidst the healthy industry development, the Company continued to enhance its R&D and product quality, launched a product series that fully met the requirements of the New National Standard, and provided better services combined with digital experience, improving its leading position. During the reporting period, the Company presented its Nano-Carbon Crystal vehicle batteries that pioneered the industry with its application of the new materials, namely nano carbon alloy and lanthanum crystal alloy, as well as the cutting-edge technology of 720° 3D mixed paste (立體混膏). The new product has addressed the issues of lead batteries in respect of anode and cathode additives. The Company also launched the T9-MAX electric graphene battery equipped with the durable technology in a warranty of up to 24 months, which provides a quick charge of more than 85% within an hour so as to satisfy the consumers' demand for endurance, high qualty, and sound pricing.

T9-MAX Electric Graphene Battery using durable technology

As of the present, the Company has developed two brands of "Tianneng" and "Huiyuan", and a series of products such as Electric Graphene (極電石墨烯), Nano Carbon Crystal (納米碳晶), King Kong (金剛), New Black Gold (真黑金), Longevity King (長壽王), Long Mileage King (長跑王) and Big Black Bull (大黑牛), catering to the demands from various market segments.

Two-wheeled and three-wheeled electric vehicles battery series meet the needs of diversified segments

2. Start-stop batteries

Start-stop batteries are applied to the ignition and lighting of automobiles, motorcycles, vessels, and internal combustion engines. Capable of effectively reducing emissions, the start-stop system is an energy-saving and emissions-reducing technology that has been growing rapidly in recent years. The system has marked an uptick in its penetration rate since 2016. According to the China Industry Information Network, China reached a 70% market penetration for its automobile start-stop batteries in 2020. Lead batteries have become the mainstream batteries in automobile tstart-stop systems, due to safety, cost-effective performance, and wide temperature range. The start-stop battery business is one of the key industries developed by the Company on the basis of consolidating its leading position in lead motive batteries.

Based on different customers segments, the market of start-stop batteries can be divided into new car and stock replacement markets. Automobile start-stop batteries have an average operating life of three to five years, with approximately a fifth of operating vehicles in need of battery replacement each year. During the reporting period, based on optimizing and integrating the existing sales network and consolidating and deepening the stock replacement market, the Company has made breakthroughs in the new car market. The Company has realized volume shipment to Jiangling Motors, Sinotruk, and Cowin Auto; in addition, the Company has met the standard of OEM factories for passenger vehicles and has been in contact with many OEMs. During the reporting period, Tianneng also set up an overseas sales team for automobile batteries to expand overseas channels by taking advantage of the Company's strength in the new car market and brand recognition.

In June 2021, Tianneng held a press conference on its strategies for new automobile start-stop batteries. At the press conference, Tianneng presented a new concept, "Replacement and Upgrade Deliver Greater Durability than Original Installations", to upgrade the brand; at the same time, it released five new product series, including the superior start battery series of Classic, Premium, Selection, and the start-stop battery series of AGM and EFB, to build a complete spectrum for vehicle battery products.

Looking forward, Tianneng's automobile start-stop batteries will leverage the Group's brand merits and technology accumulation to keep exploring its market potential.

Tianneng start-stop batteries product series

3. Energy storage batteries and backup batteries

Energy storage batteries are mainly used in solar and wind power generation equipment as well as other electric equipment. Backup batteries are mainly used for communication backup, continuous power supply system, emergency lighting and other backup purposes. Energy storage batteries and backup batteries have a replacement cycle of roughly 5 to 8 years.

Since 2021, the state authorities has introduced a raft of policies to accelerate the development of the energy storage industry. In June 2021, the National Energy Administration issued the "Notice on Submitting the Pilot Program of Roof Distributed Photovoltaic Development in the Whole County (City, District)" (《關於報送整縣(市、區)屋頂分佈式光伏開發試點方案的通知》), and implemented the development of the distributed phoptovoltaic rootop throughout the country. In July 2021, the National Development and Reform Commission ("NDRC") and the National Energy Administration jointly issued the "Guiding Opinions on Accelerating the Development of New Energy Storage" (《關於加快推動新型儲能發展的指導意見》), which set out that new energy storage shall evolve from initial commercialization to large-scale utilization with the installed capacity of new energy storage technology to surpass 30GW by 2025. Moreover in July 2021, the NDRC issued the "Notice on Further Improving the Mechanism of Electricity Pricing Based on Time Slots" (《關於進一步完善分時電價機制的通知》), which would further widen the peak-trough price difference, so as to provide space for the realization of the commercial value of energy storage facilities. The rollout of such policies has specified the unique position of new energy storage, improved the pricing mechanism of new energy storage and provided better guidance for users in peak-load shifting, and facilitated the consumption of new energy.

As a leader in the Chinese new energy industry, Tianneng has proactively explored the development of smart energy storage, kept exploring cutting-edge technology, and developed systematic energy storage products and solutions combining lead batteries and lithium-ion batteries. The High-performance Lead-carbon Battery Industrialisation Demonstration Project (高性能鉛炭電池產業化示範項目) works on a new type of batteries developed independently by Tianneng in line with leading international technical standards, with the product extensively used in such fields as energy storage power stations and new energy hybrid vehicles. In December 2020, the high-performance lead-carbon battery won the China Industrial Award (中國工業大獎), the most prestigious accolade in the Chinese industrial sector established by the State Council.

Owing to its years of deep engagement, Tianneng has been pushing for more application scenarios for energy storage. For instance, Tianneng was involved in the 10kV Energy Storage Power Station in Zhicheng of Changxing and the Project of 0.4kV Energy Storage Power Station in Da Mai Yuan Village, Huiping Township of Quzhou amongst the first four projects on grid-side energy storage power stations in Zhejiang province. The former is the first grid-side lead-carbon energy storage power station in China in cooperation with the State Grid. Tianneng also managed to develop overseas a number of demonstration projects on energy storage, such as the off-grid photovoltaic energy storage project in Africa (非洲光伏儲能離網項目).

Lead batteries will have an impactful role to play in new energy storage, for their safety and reliability, low unit energy cost and system cost, high recycling rate, and good adaptability to temperature changes.

The high-performance lead-carbon battery energy storage project

4. Mini electric vehicle batteries

Mini electric vehicle batteries are the motive batteries for low-speed four-wheelers powered solely by electricity. Such vehicles have a top speed ranging from 40 to 70 km/h with no more than four seats, and usually serve as a substitute for short-distance commuting. Currently, such vehicles use lead batteries as one of the power sources, with a battery replacement period of approximately 1 to 5 years.

Mini electric vehicles are popular in rural areas, urban-rural integration areas as well as third and fourth-tier cities in China with a relatively low per capita income, primarily because: 1) Cost-effective. The operating cost is lower than that of other four-wheelers; 2) Cater to the demand. The cruising range of a mini electric vehicle can generally cover the daily commuting of urban and rural residents, with a low speed limit which can ensure the safety of elderly drivers; and 3) Convenient charging. Mini electric vehicles can be charged easily via househould power, without installing special charging pile.

In June 2021, MIIT released the GB/T 28382 Pure Battery Electric Passenger Cars - Specifications (Draft for Comment) (《純電動乘用車技術條件》(徵求意見稿)) (the "Draft"). Mini electric vehicles serve as a sub-category of pure electric passenger vehicles under the name of Mini Low-speed Passenger Vehicles Powered Solely by Electricity in the Draft. In the meantime, such vehicles are also specified with relevant technical specifications and experimental approaches that correspond to their low-speed, miniature and lightweight characteristics in the Draft. MIIT commenced to amend the standard of the GB/T 28382 Pure Battery Electric Passenger Cars – Specifications, which helped to accelerate the well-regulated management of the industry, facilitated the orderly development of such industry norms, ensured that people's demands for safe travel is met, and provided a tremendous boost to the quick expansion of the mini electric vehicles market.

Sustaining its market leadership in mini electric vehicle batteries, the Company offers motive battery solutions and technical support to key clients such as Haiquan (海全), Honri (鴻日) and Jinpeng (金彭). The Company also continues to exploit replacement market and expand its market share.

5. Special electric vehicle batteries

Special electric vehicle batteries are mainly used in freight equipment such as electric forklifts, electric stackers and electric lift trucks as well as in engineering machinery such as excavators. Those batteries are also used in other special electric vehicles such as electric tour buses, electric cleaning vehicles, electric patrol vehicles and golf carts.

Deeply rooted in the field of forklift batteries for years, Tianneng has been engaging itself in R&D with a stream of technological innovation achievements. The Company has obtained such core patents as "An Enclosed Battery Formation Process for Tubular Lead Batteries", which have been well-received amongst mainstream enterprises from home and abroad, such as Hangcha Group (杭叉集團), Anhui Heli (安徽合力), KION Baoli (凱傲寶驪) and Lonking (龍工), with products sold to a number of overseas countries. The Company provides battery solutions including lead batteries, lithium-ion batteries, and hydrogen fuel cells and has become the second largest domestic brand in the field of forklift batteries.

Attributed to the advanced innovation platform and strong scientific research team, Tianneng insists on developing new products for the needs of customers and forms seven product series with different performance characteristics to secure safe and reliable green energy supply for all kinds of scenarios. In February 2022, shuttle buses equipped with Tianneng special electric vehicle batteries provided smooth and convenient commuting services for athletes and staff across the Beijing Winter Olympics venues.

Shuttle buses equipped with Tianneng special electric vehicle batteries in 2022 Beijing Winter Olympic Games

II. New energy batteries

The Company's new energy battery business mainly focuses on lithium-ion batteries, and also includes the production and R&D of next-generation battery products such as fuel cells. The application fields of new energy battery business are principally divided into two categories: motive field and non-motive field. The application fields for the motive category include two-wheeled and three-wheeled electric vehicles, electric passenger vehicles, electric commercial vehicles and special electric vehicles, while the application fields for the non-motive category include energy storage products and consumer electronic products.

During the reporting period, the Group's new energy battery business recorded an operating revenue of approximately RMB987 million, representing a year-on-year decrease of 6.82%. As a major strategic segment of the Group, new energy batteries, together with high-end eco-friendly batteries, form the Dual Drive Strategy of the Group.

1. Lithium-ion batteries

In November 2019, Tianneng formed a joint venture,Tianneng SAFT Energy Joint Stock Company*(天能帥福得能源股份有限公司) ("Tianneng SAFT"), with SAFT, a subsidiary of the French company Total S.A., a Global 500 enterprise, to focus on the development, manufacture and sale of advanced lithium-ion batteries for Chinese and global markets. Tianneng SAFT is mainly engaged in design, development, production and sale of cylindrical batteries, pouch shell batteries, prismatic batteries, and the lithium-ion battery management system ("BMS"). The products are widely used in two-wheeled and three-wheeled electric vehicles, energy storage, new energy vehicles, electronic appliances, communications equipment, and special industries.

The Group has successively introduced domestic and international first-class automated production equipment and technologies, and the R&D of lithium-ion battery products and production capacity construction projects has been progressing smoothly. In August 2021, Tianneng Share, a holding subsidiary of the Company, announced that it planned to invest approximately RMB3.97 billion to build a 10GWh lithium-ion battery capacity. The project is located in the South Taihu New District, Huzhou, covering a total area of 442 Mu. The first-phase production capacity is planned to be 3GWh, while the second-phase production capacity is planned to be 7GWh. The implementation of this project will facilitate the Company's production capacity planning for lithium-ion iron phosphate (LFP) batteries, thereby increasing the Company's market share and competitiveness.

The Group has adhered to independent innovation and took the lead in applying the leading Chinese and French technologies to material systems, production processes and R&D for new products. In terms of material systems, Tianneng has successfully developed the Balance Tech (衡科技) series of lithium-ion manganese iron phosphate (LMFP) batteries, forming a diversified material system consisting of NCM, lithium-ion manganese iron phosphate (LMFP), and lithium-ion iron phosphate (LFP). Tianneng also possessed the application technology of advanced materials such as silicon carbon and graphene, satisfying different lithium-ion battery application scenarios and the needs from users of different sectors.

Tianneng SAFT's automated production line for lithium-ion battery

In terms of the product safety systems, Tianneng valued quality and successfully delivered high-energy batteries to SAFT, the batteries of which will be used to power satellites. Meanwhile, in order to maintain a good after-sales safety maintenance service, Tianneng has independently developed a smart detection software for lithium-ion batteries, "Tianneng SAFT Service" (天能帥服), to help users understand the condition of lithium-ion batteries instantly.

In the R&D of new products, Tianneng has successfully developed and supplied 180Ah and 280Ah air-cooled energy storage pack and liquid-cooled energy storage pack in bulk, which not only meet the needs of large-scale energy storage industrial and commercial systems on the power generation side and grid side, but also meet the needs of household users. Tianneng has also rolled out a number of portable power stations targeting to personal users, which cater to outdoor electricity access as well as various scenarios at work and in daily life that require emergency power supply. In the energy storage industry chain, the Group's planning has covered the manufacture of energy storage cells, energy storage packs, storage cabinets, energy storage containers, energy storage BMS and EMS systems, and has formed a closed-loop industrial chain including lithium-ion battery recycling.

Tianneng successfully developed and supplied 180Ah and 280Ah air-cooled and liquid-cooled energy storage pack in bulk

In the field of application, Tianneng has formed a rich product line comprising electric vehicle lithium-ion batteries, energy storage lithium-ion batteries, light motive lithium-ion batteries, high-charge-rate electric tool batteries, etc., to meet the needs of new markets and overseas markets. Tianneng has formed strategic partnerships with new energy vehicle manufacturers, such as Haiquan (海全), Jinzhi (金致), etc., to supply lithium-ion power battery products for them, and is expanding its market to high-speed passenger vehicles. In terms of smart grid, Tianneng has reached strategic cooperations with Huaneng (Zhejiang) Energy Development Co., Ltd. and Datang Shandong Power Generation Co., Ltd., starting the collaboration in the field of new energy and smart grid. In terms of light motive lithium-ion batteries, Tianneng launched Balance Tech (衡科技), Black Bull (黑牛), M and other series of products, and also launched a one-stop batteries sharing and leasing platform "Tianneng Smart Commute" (天能智行) to provide marketing channels, individual users and operators with batteries leasing, sales, tracking, and other services. Regarding consumable lithium-ion batteries, Tianneng has its products extensively used in perambulators, toys, electric instruments and electronic media due to their superb functionality and quality.

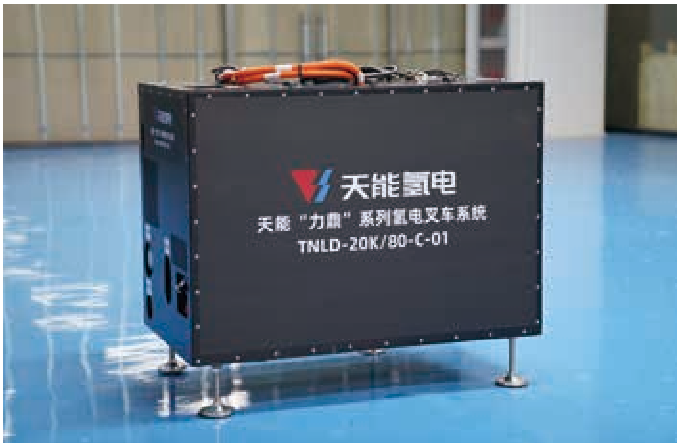
2. Fuel cells

Since 2017, Tianneng has been engaged in the R&D of multiple key materials and stacks on fuel cells. To speedily promote the industrialisation of its fuel cell technology, the Group established Zhejiang Tianneng Hydrogen Energy Technology Co., Ltd. (浙江天能氫能源科技有限公司) in February 2021.

Tianneng has built an R&D team that comprises academician advisors, experts under national talent introduction schemes and seasoned industry specialists. Furnished with well-equipped specialised laboratories, the Company has engaged in the preparation of relevant industry standards as a member of the National Industry Standard Committee (國家行業標準委員會). Tianneng persists on scientific and technological innovation, has independently developed 30kW, 40kW, 60kW, 80kW graphite plate stacks and 100kW high-power metal plate stacks, and is also involved in independent R&D of core components such as Membrane Electrode Assembly (MEA) and catalysts. Because of its leading practice in the R&D, production and application of fuel cells, Tianneng won the 2021 Outstanding Contribution Award for Localization of Chinese Hydrogen Power Industry Chain (2021年度中國氫電產業鏈國產化優秀貢獻獎) and 2021 Fuel Cell Stack Technology Contribution Award (2021年度燃料電池電堆技術貢獻獎) from GGII Hydrogen Power.

In 2021, Tianneng has expedited the market-oriented application of its fuel cells and can provide customized fuel cell system solutions according to specific application scenarios. During the China North International Bicycle & E-Bike Exhibition in March 2021, Tianneng formally launched hydrogen-powered electric bicycles. In April 2021, the high-performance hydro-cooled stack products independently developed by Tianneng started to fit into the tour buses of DR Powertrain, and commenced demonstration operation in the Jiaxing bases. In September 2021, Tianneng signed a strategic cooperation agreement with Xuzhou Xugong Special Construction Machinery Co., Ltd. (徐州徐工特種工程機械有限公司), and Tianneng's new hydrogen fuel cell system for forklifts was officially released.

Hydrogen-powered electric bicycles launched by Tianneng



Liding series hydrogen fuel cell battery system for forklifts released by Tianneng

In 2021, Tianneng also made breakthroughs in the R&D and application of high-power fuel cells. The 150kW fuel cell module independently developed by Tianneng has successfully passed the mandatory inspection of the National Product Quality Inspection and Testing Center for Motor Vehicle (國家機動車產品質量檢驗檢測中心), and can provide mature high-power fuel cell module products for application scenarios such as large buses, heavy-duty trucks, and logistics vehicles. Nanjing Jinlong Passenger Buses and Geely Passenger Buses installed with Tianneng's hydrogen fuel cell battery system have been listed in the Road Motor Vehicle Manufacturers and Products (《道路機動車輛生產企業及產品》) by MIIT, which marks the successful commercialization of the Company's hydrogen fuel cell batteries.

Geely Urban Passenger Bus installed with Tianneng's hydrogen fuel cell battery system on service

III. Renewable new materials

Tianneng is one of the first enterprises to enter the renewable new materials industry. In terms of the renewable new materials segement, the Company, based on the Extended Producer Responsibility Scheme (生產者責任延伸制度), has developd the recycling business of used lead battery and lithium-ion battery apart from the main business, forming a closed-loop for the full life cycle of batteries; in tandem with that, the Company is also actively exploring other green recycling businesses including solid waste and hazardous waste disposal. It extended the upstream and downstream industrial chains and increased its influence in the subdivision fields such as carbon and modified plastics. With over ten years of technology accumulation and scientific operations, the renewable new material business segment has become one of the three major businesses of the Company, occupying an important position in its future development plan. During the reporting period, the Group recorded an operating revenue of approximately RMB2,678 million in its renewable new materials business, representing a year-on-year increase of 121.8%.

In recent years, the Chinese government paid extra attention to developing its circular economy and successively drafted or issued laws and regulations such as the "Notice of the General Office of the State Council on Issuing the Implementation Plan for Extended Producer Responsibility" (《國務院辦公廳關於印發生產者責任延伸制度推行方案的通知》) and the "Interim Measures for the Management of the Recycling and Utilisation of Lead Batteries (Draft for Comments)" (《鉛蓄電池回收利用管理暫行辦法》(徵求意見稿)), with a view to setting out detailed provisions on the recycling and disposal processes of used batteries, establishing an Extended Producer Responsibility scheme for products such as lead batteries and vehicle motive batteries. The objective is for China to reach a recycling rate of over 70% of its lead batteries by the end of 2025. At present, under its laws, China strictly prohibits entities without licences or not in compliance with the requirements of the licences from engaging in operations regarding the collection, storage, utilisation and disposal of hazardous wastes. In the future, the recycling industry will receive growing support for its sound and orderly development, phasing out outdated and substandard production capacity.

At the same time, the recycling of used power batteries is on the climb. The number of new energy vehicles in China is growing rapidly, and the number of used motive batteries is also increasing gradually. A huge number of used motive batteries contain scarce resources such as nickel, cobalt, manganese, and lithium-ion. In order to improve the level of comprehensive utilization of resources and strengthen traceability supervision and recycling, the MIIT issued and implemented a series of policies such as the "Interim Measures for the Administration of Recycling and Utilization of Motive Batteries for New Energy Vehicles" (新能源汽車動力蓄電池回收利用管理暫行辦法) and the "Measures for the Administration of Echelon Utilization of Moitive Batteries for New Energy Vehicles" (新能源汽車動力蓄電池梯次利用管理辦法). The recycling of used motive batteries and the lifetime management of automobiles are lifecycle in the six key actions under the "14th Five-Year" Plan for the Circular Economy Development issued by the NDRC. Therefore, it is imperative to recycle used motive batteries from both an environmental protection perspective and an economical perspective.

At the end of 2021, there were favorable policies for the renewable resources industry. After two consecutive years of proposal made by Mr. Zhang Tianren, a representative of the National People's Congress and the chairman of the Group, the Ministry of Finance and the State Taxation Administration issued the "Announcement on Improving the Value-Added Tax Policy for Comprehensive Utilization of Resources" (關於完善資源綜合利用增值稅政策的公告) (the "Announcement") which took effect from 1 March 2022. The Announcement stated that general taxpayers of value-added tax engaged in the recycling of renewable resources can choose the simplified tax calculation method and are taxed at the rate of 3% when selling the renewable resources acquired by them. The tax rebate rate for the comprehensively utilized resources named "used batteries and their dismantled materials" would increase from 30% to 50%. Under the coordination of the financial and tax systems, a fair and sustainable operating environment would be created for future renewable resources industry.

By far, Tianneng has built three internationally advanced industrial parks for circular economy, and obtained the qualifications for launching pilot recycling projects in 15 provinces where used battery resources are relatively concentrated. Tianneng also continues to identify potential locations for the construction of industrial parks for circular economy. In August 2021, a foundation stone laying ceremony was held for a comprehensive utilization project handling 250,000 tons of resources in Shuyang, Jiangsu Province. This is the fourth industrial park for circular economy built by Tianneng in the country after landing in Zhejiang, Anhui and Henan.

Tianneng Circular Economy Industrial Park
in Anhui Province

For the recycling of lead batteries, the Company can process 700,000 tons of used batteries each year and reach a metal recycling rate of more than 99% for used batteries, a 99% recycling rate for plastics and a 100% recycling rate for residual acids. The Company has also made significant progress in lithium-ion battery recycling. The Company currently has deployed a capacity of 7,000 tons for the disposal of lithium-ion batteries. Zhejiang Tianneng New Materials Co., Ltd., a subsidiary of the Company, has twice been included in the enterprise list of "Standards and Conditions for the Comprehensive Utilisation of Waste Power Batteries for New Energy Vehicles" (《新能源汽車廢舊動力電池綜合利用行業規範條件》), issued by MIIT, and has become an enterprise with dual white lists for recycling and echelon utilisation in the motive battery recycling industry. Regarding the technology for recycling lithium-ion batteries, Tianneng has applied for 27 relevant patents, and led or participated in establishing 40 national standards. In June 2021, the Joint Innovation Laboratory for the Disassembly and Resource Utilisation of Retired Lithium-ion Batteries (退役鋰離子電池拆解與資源化利用聯合創新實驗室) of Tianneng was included in the list of the second batch of recognised joint innovation laboratories under the China Technology Innovation Strategic Alliance for Resources Recycling Industry (CIAR) (中國再生資源產業技術創新戰略聯盟). In August 2021, Tianneng's key technologies for the green and efficient recycling and processing of retired power batteries were included on the 2021 Zhejiang Provincial Key Technology Innovation Project Plan announced by the Economy and Information Technology Department of Zhejiang province.

In terms of channels, the Company relied on the huge network of terminal sales stores in China to expand the recycling channels, and explored the existing recycling network resources in various places, forming close cooperation; it also utilized the internet and operated the country's largest used battery App "Tianneng Recycling Cloud (天能回收雲)" to form an "After-sales Plus" service model. Tianneng also established a strategic partnership with "Aihuishou" (愛回收), a well-known online recycling platform for digital products in China. The two parties not only cooperated closely in the field of digital battery recycling, but also cooperated in the recycling and dismantling business of new energy vehicles and expanded their cooperation to motive battery recycling.

The Group will continue to develop the recyclable new material industry, deepen the development of lead battery and lithium-ion battery recycling technology, increase recycling capacity and expand recycling channels, as well as extend to subdivision fields and upstream and downstream of the industrial chain and progress steadily towards the goal of setting up large circular industry clusters.

IV. Opening Up Industry Chain, Driving Global Development and Creating a New Growth Engine

Under the background of the "Carbon Peaking" and "Carbon Neutrality" goal, Tianneng continuously facilitates the "three-chain integration" – supply chain, industrial chain and value chain – to cultivate new development momentum.

The Company established the Tianchang Supply Chain (天暢供應鏈) as a subsidiary to coordinate and arrange supply chain transportation resources. Meanwhile, the Company made efforts to build a platform for smart supply chain services and to offer clients with integrated service solutions to supply chains that cover a range of functions, such as logistics, warehousing and finance. In 2021, the Tianchang Supply Chain added a shipping module named Smart Shipping (船小智), indicating that Tianneng completed a new round of digital upgrade for its multimodal transport system that integrated road, railway and water transport.

Moreover, Tianneng set up its subsidiary for intelligent equipment manufacturing. It has achieved independent R&D, manufacturing, assembly and sales of precision equipment, which ramped up the precision and quality of moulds and their manufacturing components during battery production, and achieved the precision manufacturing in battery production.

In the trading of new energy materials, our business focuses on the raw materials of non-ferrous metals such as lead and zinc, as we further grasp market information, boost the Company's market clout and actively build an Integrated Service Platform for Non-ferrous Metal (有色金屬綜合服務平台), in an effort to become an impactful service provider of non-ferrous metal system integration in the industry.

For overseas business, the Group has fully investigated the market potential in regions such as Southeast Asia, South Asia, Europe, Middle East, and Africa. The Group has established sales networks in Vietnam, India, Africa, and other countries and regions to develop the overseas clientele to further explore new markets and spaces.

PROSPECTS

In the future, Tianneng, based on its positioning as a green energy solutions provider, will continue to deploy in-depth application scenarios such as micro-mobility, passenger vehicles, commercial vehicles, smart energy storage, and recycling, providing systematic green energy solutions with multi-technology and multi-product.

The Company will steadily widen the application fields of lead batteries, expand segments such as start-stop and smart energy storage on the basis of consolidating its leading position in lead motive batteries, and strive to develop its business in China and overseas. Regarding the technology, Tianneng will speed up the R&D and industrialisation of the technology of high-energy lead batteries, such as lead-carbon and pure lead batteries, and gradually develop into a global leader in lead batteries, a pioneer in advanced high-energy lead batteries and a maker of international standards.

The Company will continue to vigorously develop lithium-ion batteries and strengthen its presence, making the new energy battery business as one of the Company's core businesses. The Company will continue to enhance its production capacity through the "High-Energy Motive Lithium-ion Battery and PACK Project" and "Annual Output of 10GWh Lithium-ion Battery Project for the Base in South Taihu New District, Huzhou". Relying on the advantages of brands and channels established in the domestic and international market, the Company will capture the lithium-ion motive battery market for light electric vehicles with mature technology and operating system, and gradually deploy new energy vehicles, smart energy storage, backup batteries, and other application fields. Meanwhile, the Company will actively attract the R&D talents in fields of new battery technology such as fuel cells. It has commenced the R&D of projects for fuel cells, including Fuel Cell Metal Plate Reactors (燃料電池金屬板電堆) and Development of High-Power Graphite Plate Reactors for Commercial Vehicles (商用車用大功率石墨板電堆的開發) to accelerate the implementation of fuel cell industrialization.

The Company will adhere to the concept of green and sustainable development and integrate the recycling of lead and lithium-ion batteries that combined with the disposal and resource utilisation of solid wastes from urban life, industry, and rural areas, sparing no effort to build a green sustainable system for the new materials industry.

The Company will adhere to the new development concept of innovation and reform, and comprehensively create new economic growth drivers in a customer-centric and market-oriented approach, laying a solid foundation for a new round of high-quality sustainable development.

Management Analysis

Gross profit

The Group's gross profit decreased by approximately 15.86% to approximately RMB4,621 million in 2021 from RMB5,492 million in 2020, which was attributable to the increase in sales volume but fall in gross profit margin of batteries. The overall gross profit margin decreased by 4.86 percentage points to 5.40% from 10.26% in 2020. Among them, gross profit margin of manufacturing segment was 12.05%, representing a decrease of 5.03 percentage points when compared with 2020. This was mainly attributable to the increase in raw material cost without corresponding increase in the product sales price.

Other income

Other income of the Group increased by approximately 65.15% from approximately RMB530 million in 2020 to approximately RMB876 million in 2021. The increase was mainly attributable to the increase in government grants. Interest income increased from approximately RMB138 million in 2020 to approximately RMB218 million in 2021. The increase was mainly attributable to optimised fund allocation and increase in interest income from deposit.

Selling and distribution costs

Selling and distribution costs of the Group increased by approximately 10.62% from approximately RMB938 million in 2020 to approximately RMB1,037 million in 2021. The increase in selling and distribution costs was mainly due to the increase in transportation fees.

Administrative expenses

Administrative expenses increased by approximately 25.05% from approximately RMB791 million in 2020 to approximately RMB989 million in 2021. Such increase was mainly due to the increase in staff cost and consultancy expenses.

Finance costs

Finance costs increased by approximately 19.78% from approximately RMB212 million in 2020 to approximately RMB254 million in 2021, which was mainly due to the increase in loan size during the year.

Taxation

Tax charges of the Group decreased by approximately 35.81% from approximately RMB445 million in 2020 to approximately RMB286 million in 2021, which was mainly due to the decrease in profit during the year.

Liquidity and Financial Resources

The net cash from operating activities for the year of 2021 was approximately RMB2,107 million (2020: RMB2,102 million). In this year, the Group had a better profit and strengthened the management of prepayments and account payables enabling the overall cash flow of operating activities to maintain at a good level.

As at 31 December 2021, the bank balances and cash (including pledged bank deposits) of the Group was approximately RMB11,640 million (31 December 2020: approximately RMB5,759 million). As at 31 December 2021, the Group obtained undrawn banks facilities of approximately RMB7,859 million (31 December 2020: approximately RMB8,985 million). The bank balances and cash (including pledged bank deposits) of approximately RMB11,427 million, RMB17.60 million, RMB195 million and RMB0.6 million were denominated in Renminbi, Hong Kong Dollars, US Dollars and Euros respectively. As the bank balances in Hong Kong Dollars, US Dollars and Euros collectively accounted for approximately 1.83% of the total balances, the Group's relevant exchange risk is low.

As at 31 December 2021, the net current assets of the Group were approximately RMB7,799 million (31 December 2020: net current assets of approximately RMB3,242 million). The increase was primarily attributable to the increase in financial instruments held for sale and bank deposits of the Company, and that the Company was able to control the level of its liabilities and financial risks.

As at 31 December 2021, the interest bearing loans of the Group with maturity of within one year totally amounted to approximately RMB2,875 million (31 December 2020: approximately RMB919 million). The interest bearing loans of the Group with maturity of more than one year amounted to approximately RMB1,409 million (31 December 2020: RMB719 million). The interest bearing loans of RMB2,551 million (31 December 2020: approximately RMB1,543 million) carried fixed and variable interest rates ranging from 2.23% to 7.36% (2020: 2.23% to 4.79%) per annum. Loans dominated in U.S. dollar and Hong Kong dollar were equivalent to loans denominated in Renminbi of approximately RMB1.332 billion, which carried fixed and variable interest rates ranging from 1.09% to 1.71%. The Company will closely monitor the changes in interest rate and assess the interest rate risk.

The objective of the Company's financial policy is to maintain healthy capital structure to minimize the capital cost through prudent financial management. During the year under review, the Group continued to further make use of long-term loans in order to optimize its loan structure.

Financial Position

Assets

As at 31 December 2021, the total assets of the Group were approximately RMB32,739 million, representing an increase of 41.11% as compared to approximately RMB23,200 million as at 31 December 2020. Among them, non-current assets increased by approximately 28.25% to approximately RMB9,652 million and current assets increased by approximately 47.29% to approximately RMB23,087 million. The major reason for the increase of non-current assets was due to the capital expenditure on production plants and equipment upgrading. The increase in current assets was mainly attributable to the increase in financial instruments held for sale, receivables and bank deposits.

Liabilities

As at 31 December 2021, the total liabilities of the Group were approximately RMB17,362 million, representing an increase of approximately 26.35% as compared to approximately RMB13,741 million as at 31 December 2020. Among them, non-current liabilities increased by approximately 58.49% to approximately RMB2,074 million, mainly due to the increase in long-term interest bearing borrowings; current liabilities increased by approximately 22.97% to approximately RMB15,288 million, mainly due to the increase in bill payables, account payables and short-term borrowings.

Analysis by Key Financial KPIs

Profitability:

	2021	2020
Return on equity	**12.49%**	29.91%
Gross profit margin	**5.40%**	10.26%
– Trading	**0.11%**	0.19%
– Sales of batteries and battery related sales	**12.05%**	17.08%
Net profit margin	**1.81%**	4.68%

The overall gross profit margin in 2021 decreased compared to 2020 due to the increase of trading business, as well as the increase in the price of raw materials prices for lead-acid battery without corresponding increase in the product sales price.

Liquidity:

	2021	2020
Current ratio	**1.51**	1.26
Quick ratio	**1.22**	0.90

Both the ratios above in 2021 increased when compared with those in 2020, mainly due to a higher increase of current assets as compared to that of the current liabilities.

Operating Cycle:

	2021	2020
Inventory turnover days	**20**	31
Account receivables turnover days	**6**	7
Account payables turnover days	**12**	17
Account receivables and bills turnover days	**13**	18
Account payables and bills turnover days	**25**	37

The inventory turnover days decreased by 11 days to 20 days in 2021 due to the enhancement of inventory management in 2021. Account receivables turnover days decreased by 1 day from 2020 to 6 days in 2021 due to improved management of account receivables in 2021. Account payables turnover days for 2021 decreased by 5 days to 12 days mainly due to the decrease in account payables. Bills and account receivables turnover days decreased by 5 days, to 13 days. Bills and account payables turnover days decreased by 12 days to 25 days due to the decrease in account payables.

Capital:

	2021	2020
Net debt ratio	**-28.70%**	-29.79%
Interest coverage ratio (Note)	**10.60**	17.40

Note: EBITDA divided by total interest expenses

As the interest bearing debt ("Debt") and the cash and bank balances as at 31 December 2021 were RMB4,284 million and RMB8,697 million respectively, the net debt was RMB-4,413 million. The net debt ratio was basically the same as last year. There was adequate total capital during the year.

The interest coverage ratio is 10.60 times, and the ability to make interest payments remained strong.

Return of Shareholders:

	2021	2020
Earning per share (Basic) (RMB)	**1.15**	2.20
Dividend per share (HK cent/share)	**40 (Note)**	40

Note: representing the dividend proposed by the Company's board of directors (the"Board") for 2021, which is subject to approval at the annual general meeting.

Capital Expenditure

The capital expenditure in 2021 was approximately RMB2,356 million (2020: approximately RMB1,180 million). A majority of expenditure was incurred in the lithium-ion battery segments, the start-stop battery segments and construction investment in the recycling segments.

Capital Commitments

The amount contracted for but not stated in the consolidated financial statements in respect of the acquisition of property, plant and equipment as at 31 December 2021 was approximately RMB2,043 million (31 December 2020: approximately RMB1,338 million).

Gearing Ratio

The Group's gearing ratio (which is based on the amount of total interest bearing loans divided by total assets multiplied by 100%) as at 31 December 2021 was approximately 13.08% (31 December 2020: approximately 7.07%).

Exposure to Exchange Rate Fluctuation

As the Group's operations were mainly conducted in China and the majority of businesses were transacted in Renminbi, the Group has set up policies to strike a balance between uncertainty and the risk of opportunity loss due to the growing significance of its exposures to fluctuations in foreign currencies. Foreign currency forward contracts can be used to eliminate the currency exposures. During the year, the Group has entered into certain foreign currency forward contracts and closely monitored the movement of foreign currency rates. The Board is of the view that the Company's operating cash flow and liquidity are not subject to significant foreign exchange rate risk.

Contingent Liabilities

The Group did not have any significant contingent liabilities as at 31 December 2021 (31 December 2020: Nil).

Pledge of Assets

As at 31 December 2021, the bank facilities of the Group were secured by bank deposits, bills receivables, property, plant and equipment and prepaid lease payments. The aggregate net book value of the assets pledged amounted to approximately RMB4,315 million (31 December 2020: RMB2,784 million).

Employee and Remuneration Policies

As at 31 December 2021, the Group employed a total of 25,618 employees (31 December 2020: 24,379 employees). Staff costs excluding directors' emoluments of the Group for the year of 2021 amounted to approximately RMB2,702 million (2020: RMB2,259 million). The costs included basic salaries and benefits as well as staff benefits such as discretionary bonus, medical and insurance plans, pension scheme (including the schemes under the statutory requirement of the government such as pension insurance in China and mandatory provident fund in Hong Kong), unemployment insurance plans and share option scheme etc. Competitive remuneration packages were offered to employees. The Company has adopted incentive programs (including share option scheme) to encourage employee performance and provided a range of training programs for the development of its staff.

Please refer to the paragraphs headed "Emolument Policy" in the "Directors' Report" section of this annual report for the mechanism for determining the emolument payable to the Directors.

Significant Investments Held

Save as disclosed in Note 22 and Note 30 to the consolidated financial statements, there were no other significant investments held by the Group as at 31 December 2021. Such investment refers to its increased holdings of those excellent companies in the industry, reflecting its confidence in the prospect of the industry and the increase in corporate interest.

Financial assets at fair value through profit or loss

As at 31 December 2021, the Group's financial assets at fair value through profit or loss mainly included unlisted financial products purchased from commercial banks. The following table summarizes the Group's financial assets at fair value through profit or loss as at 31 December 2021:

Issuer	Product Category	Principal activities	Investment cost/ nominal value (RMB'000)	Fair value as at 31 December 2021 (RMB'000)	Interest/dividend received	Percentage of total assets of the Company as at 31 December 2021
Bank of Jinhua	Structured deposit	Banking services	50,000.00	50,000.00	—	0.15%
Luso International Banking Ltd.	Structured deposit	Banking services	100,000.00	100,000.00	—	0.31%
Ping An Bank Co., Ltd.	raised wealth management structured deposit	Banking services	130,000.00	130,000.00	—	0.40%
Shanghai Pudong Development Bank Co., Ltd	raised wealth management structured deposit	Banking services	180,000.00	180,000.00	—	0.55%
Shanghai Pudong Development Bank Co., Ltd	raised wealth management structured deposit	Banking services	80,000.00	80,000.00	—	0.24%
Shanghai Pudong Development Bank Co., Ltd	raised wealth management structured deposit	Banking services	50,000.00	50,000.00	—	0.15%
Ping An Bank Co., Ltd.	Structured deposit	Banking services	109,000.00	109,000.00	—	0.33%
Ping An Bank Co., Ltd.	Structured deposit	Banking services	22,000.00	22,000.00	—	0.07%
Bank of Ningbo	Structured deposit	Banking services	130,000.00	130,000.00	—	0.40%
China CITIC Bank	raised wealth management structured deposit	Banking services	400,000.00	400,000.00	—	1.22%
Industrial and Commercial Bank of China Limited	raised wealth management structured deposit	Banking services	60,000.00	60,000.00	—	0.18%
Industrial and Commercial Bank of China Limited	raised wealth management structured deposit	Banking services	100,000.00	100,000.00	—	0.31%
Industrial and Commercial Bank of China Limited	raised wealth management structured deposit	Banking services	60,000.00	60,000.00	—	0.18%
Bank of Shanghai	Structured deposit	Banking services	50,000.00	50,000.00	—	0.15%
Listed company	Equity securities listed in China		34,942.10	39,609.54		0.12%
Listed company	Equity securities listed in Hong Kong		17,887.95	39,485.68		0.12%

Material Acquisition and Disposal

On 18 January 2021, the shares of Tianneng Share were separately listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange (the "Separate Listing"). Pursuant to the Separate Listing, Tianneng Share issued a total of 116,600,000 A shares at an offer price of RMB41.79 per share to investors. Upon completion of the Separate Listing and the new issue, the Group's controlling interest in Tianneng Share was reduced from 98.33% to 86.53%.

Save as disclosed above, the Group has no material acquisition and disposal as at 31 December 2021.

Purchase, Sale or Redemption of the Company's Listed Shares

Please refer to the paragraph headed "Share Capital and Issue of Securities" as set out in the "Directors' Report" section of this annual report for the purchase, sale and redemption of the Company's shares in this year.

Principal Risks and Uncertainties

Many economic experts closely monitor whether the global and China economy growth will slow down in coming years. The Group's traditional business such as the sale of e-bike battery may be under uncertainties if the consumer market downturn exists. It is the reason that the Group started industry chain transformation and upgrading a few years ago, aiming to diversify the risk of over reliance on any single business segment.

In the past few years, labour cost in China continuously increased and the production-oriented entities in China were facing the increasing pressure of higher production cost. The Group will apply more resources in establishing production automation system in order to reduce manpower per production unit. At the same time, the new incentive scheme will be adopted as the other way for improving the manpower efficiency.

Please refer to notes 4 and 5 to the consolidated financial statements for other risks and uncertainties.

Future Development

For the Group's future plans and development, please refer to the paragraph headed "Prospects" in the "Management Discussion and Analysis" section of this annual report.

Closure of Register of Members

The register of members of the Company will be closed from Tuesday, 24 May 2022 to Friday, 27 May 2022 (both days inclusive), during which period no transfer of the shares of the Company will be registered. In order to qualify for attending the annual general meeting of the Company of this year, all share certificates, together with duly completed transfer forms, must be lodged with the Company's Hong Kong branch share registrar, Tricor Investor Services Limited, at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong, no later than 4:30 p.m. on Monday, 23 May 2022.

Further, the register of members of the Company will be closed from Monday, 6 June 2022 to Wednesday, 8 June 2022 (both days inclusive), during which period no transfer of the shares of the Company will be registered. In order to establish entitlements to the proposed final dividend, all transfers accompanied by the relevant share certificates must be lodged with the Company's Hong Kong branch share registrar, Tricor Investor Services Limited, at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong not later than 4:30 p.m. on Thursday, 2 June 2022. Subject to the approval of the shareholders at the annual general meeting of the Company to be held on Friday, 27 May 2022, the proposed final dividend is expected to be paid on or before Friday, 8 July 2022.

PROFILES OF DIRECTORS AND SENIOR MANAGEMENT

Executive Directors

Dr. ZHANG Tianren
張天任博士

Aged 59, is the chairman (the "Chairman") of the board of directors (the "Board"), president and founder of our Group. Dr. ZHANG is responsible for our overall management and formulation of our business strategies. Dr. ZHANG graduated from Zhejiang University with a master degree of management, and was an honorary doctorate of the International American University (美國加州國際大學) and a visiting professor of the Zhejiang Sci-tech University. Dr. ZHANG has 36 years of experience in technological R&D and management of rechargeable battery industry in China. Dr. ZHANG was the factory manager of Zhejiang Changxing Storage Battery Factory during the period between 1989 and 2002, and has been the chairman and the general manager of Zhejiang Tianneng Battery Co., Ltd. ("Tianneng Battery") since 2003. Dr. ZHANG is currently the chairman of Tianneng Share, which is a listed company on the Science and Technology Innovation Board of the Shanghai Stock Exchange.

In addition to his key position in our Group, Dr. ZHANG was also a member of the 12th and 13th National People's Congress, an executive committee member of All-China Federation of Industry and Commerce and vice chairman of Zhejiang Federation of Industry and Commerce. Besides, he was a vice president of China Electrical Equipment Industry Association, vice council chairman of China Battery Industry Association, a member of China EV100, vice president of the National Technology and Equipment Industry Association (全國工商聯科技裝備業商會副會長), president of Battery Industry Association of Zhejiang Province and etc.

Dr. ZHANG was awarded as one of the World Outstanding Chinese at 11th World Outstanding Chinese Award, 1st New Technological Merchants in Zhejiang, 2009 Outstanding Zhejiang Merchants, Top Ten Influential Persons of the PRC Electric Appliance Industry 2009, the Person of the Year in the Chinese Market Economy Award 2011, 2012 Bauhinia Cup Outstanding Entrepreneur, the 2012 Ernst & Young Entrepreneur of the Year, 2014 Honorary Zhejiang Merchant and Distinguished Zhejiang Merchant (二零一四年光榮浙商、傑出浙商), 8th Outstanding Entrepreneur of China and 2016 Global New Energy Business Leader. Dr. ZHANG is the younger brother of Mr. ZHANG Aogen.

Mr. ZHANG Aogen
張敖根先生

Aged 64, is our executive Director and vice-president and is responsible for our foreign trade and overseas investment functions. Mr. ZHANG joined Zhejiang Changxing Storage Battery Factory as a deputy factory manager in 1988 and was appointed as a deputy general manager of Tianneng Battery in 2003. Mr. ZHANG attended the seminar of business management for senior president in Zhejiang University from September 2007 to December 2008. Mr. ZHANG is currently a director of Tianneng Share, which is a listed company on the Science and Technology Innovation Board of the Shanghai Stock Exchange. Mr. ZHANG is a senior economist and has experience in sales management, procurement management as well as trade and investment. Mr. ZHANG is also an elder brother of Dr. ZHANG Tianren, chairman of our Board.

Mr. SHI Borong
史伯榮先生

Aged 68, is our executive Director and vice president. Mr. SHI joined Zhejiang Changxing Storage Battery Factory in 1989 and was promoted as deputy factory manager of Zhejiang Changxing Storage Battery Factory in 1990. He acted as deputy general manager of Tianneng Battery in 2003 and was appointed as the standing deputy general manager of Tianneng Battery in 2010. In September 2013, Mr. SHI was appointed as the chairman of Tianneng Battery (Anhui) Co., Ltd. and Anhui Zhongneng Power Supply Co., Ltd. Mr. SHI attended the seminar of business management for senior president in Zhejiang University from August 2007 to September 2008. Mr. SHI is a senior economist and has 32 years of management experience in rechargeable battery enterprises.

Mr. ZHANG Kaihong
張開紅先生

Aged 64, is our executive Director, vice president and the chief expert of technical center. Mr. ZHANG joined Zhejiang Changxing Storage Battery Factory in 1988 and acted as deputy factory manager of Zhejiang Changxing Storage Battery Factory in 1992. Mr. ZHANG was also appointed as deputy general manager of Tianneng Battery in 2003 and as general manager of Tianneng Battery (Wuhu) Co., Ltd. ("Tianneng Wuhu") in 2006. From February 2014, Mr. ZHANG was appointed as a vice-president of national level technology centre of the Group. Mr. ZHANG attended the seminar of business management for senior president in Zhejiang University from August 2007 to September 2008. Mr. ZHANG is a senior engineer with 35 years of experience in research and development, quality control and corporate management of rechargeable battery products.

Mr. ZHOU Jianzhong
周建中先生

Aged 51, is our executive Director and vice president. Mr. ZHOU is responsible for promoting the development of strategic and emerging industries of our Group as well as assisting the president in operations and management. Mr. ZHOU joined the Group in 1996 and has been the head of market management section of Tianneng Battery, standing deputy general manager of Zhejiang Changxing Tianneng Power Supply Co., Ltd. ("Tianneng Power Supply")), standing deputy general manager of Tianneng Battery, standing deputy general manager of Zhejiang Tianneng Energy Technology Co., Ltd. ("Tianneng Energy Technology"), general manager of Zhejiang Tianneng Power Energy Limited ("Tianneng Power Energy") and general manager of Zhejiang Tianneng Electrical Resources Limited ("Tianneng Electrical Resources"). He was appointed as vice-president of the Group in 2011. Mr. ZHOU attended the seminar of business management for senior president in Zhejiang University from September 2007 to December 2008, and attended the training program for general managers in China Europe International Business School from July 2017 to March 2018. Mr. ZHOU is currently a director of Tianneng Share, which is a listed company on the Science and Technology Innovation Board of the Shanghai Stock Exchange. He is a senior economist with 27 years of experience in the sales and management of rechargeable batteries and corporate management.

Independent Non-Executive Directors

Mr. HUANG Dongliang
黃董良先生

Aged 66, was appointed as an independent non-executive Director in February 2007. Mr. HUANG graduated from Zhongnan Finance University in 1988 with a bachelor degree majored in economics. Mr. HUANG obtained the qualifications of professor, senior accountant and registered tax agent in China. Mr. HUANG is a certified public accountant registered under the Chinese Institute of Certified Public Accountants. Mr. HUANG was an independent director of Zhejiang Medicine Co., Ltd. (浙江醫藥股份有限公司) which is a listed company on Shanghai Stock Exchange (Stock code: 600216.SH), until his retirement in June 2021. Mr. HUANG was an independent director of Lander Sports Development Co., Ltd. (萊茵達體育發展股份有限公司), which is a listed company on Shenzhen Stock Exchange in China (Stock code: 000558), until his retirement in May 2018.

Mr. ZHANG Yong
張湧先生

Aged 46, was appointed as an independent non-executive Director in August 2018. Mr. ZHANG graduated from Fudan University, majoring in international finance and obtained a doctoral degree in economics. Mr. ZHANG is currently a researcher of the Comprehensive Research Institute of Shanghai Free Trade Zone of Fudan University (復旦大學上海自貿區綜合研究院), a part-time professor of Nanjing University, a part-time tutor for postgraduate students of Shanghai University of Finance and Economics and a visiting professor of Shanghai Lixin University of Accounting and Finance (上海立信會計金融學院). Mr. ZHANG has been an independent director of Changying Xinzhi Technology Co., Ltd. which is listed companies on the Main Board of the Shenzhen Stock Exchange (Stock code: 002664.SZ) since October 2019. He has been an independent director of Haima Automobile Co., ltd., which is listed companies on the Main Board of the Shenzhen Stock Exchange (Stock code: 000572.SZ) since May 2021. He has been an independent director of Shanghai Taihe Water Technology Development Co., Ltd. which is a listed companies on the Main Board of the Shanghai Stock Exchange (Stock code: 605081.SH) since April 2021. He has been an independent director of Shanghai Lingang Holdings CO.,LTD. which is a listed companies on the Main Board of the Shanghai Stock Exchange (Stock code: 600848.SH) since September 2021.

Mr. XIAO Gang
肖鋼先生

Aged 60, graduated from the Department of Chemistry of Danmarks Tekniske Universitet (丹麥技術大學) and the winner of the Chinese Government Friendship Award (中國政府友誼獎). He was accredited as a National Distinguished Expert (國家特聘專家), a fellow of The Royal Society of Chemistry (英國皇家化學會) and an expert of the China Council for International Investment Promotion (中國國際投資促進會).

Senior Management

Mr. ZHAO Haimin
趙海敏先生

Aged 57, is the vice-president of the Group. Mr. ZHAO is responsible for managing the research centre as well as the information technology commission of the Group. Mr. ZHAO joined us in 2004 as an assistant to the general manager and deputy general manager, etc. of Tianneng Battery. Mr. ZHAO was responsible for after-sales services, human resources and sales management of the Group, during which he organized and implemented the first tracking system of laser printing for quality and aftersale informationalization and the introduction of overseas high-end talents under the national "Thousand Talents Program" (國家千人) in respect of the field of new energy. Mr. ZHAO graduated from Bengbu Industrial Technology Institute (蚌埠工業技術學校), majoring in textile. Later, he attended a vocational school and a university for corporate management and was enrolled in the MBA programme in China University of Geosciences in 2009. Mr. ZHAO is a professorate senior engineer. He has extensive knowledge in non-woven fabrics and battery separators. Prior to joining us, Mr. ZHAO was an assistant to the general manager in Huzhou KINGSAFE Group Co., Ltd. (湖州金三發集團) and was responsible for the management of technology, production and sales.

Ms. WANG Jing
王靜女士

Aged 58, is our financial controller. Ms. WANG is responsible for the financial management of the Group. She joined the Group in 2004 as the manager of financial department of Tianneng Battery and was appointed as our financial controller in 2009. She has more than 39 years of financial management experience. Ms. WANG graduated from Hangzhou Institute of Electrical Engineering in Industrial Accounting in July 1988 and attended the advanced seminar of modern management (CFO) in Zhejiang Institute of Finance & Economics from June 2008 to June 2009. Prior to joining us, Ms. WANG worked in Zhejiang Leomax Cement Company Limited (浙江三獅水泥股份有限公司), Huzhou Kingsafe Group (湖州金三發集團) and Huzhou Tianheng United CPA Firm (湖州天衡聯合會計師事務所) and was responsible for the financial management and audit.

Ms. HUI Wai Man, Shirley
許惠敏女士

Aged 54, is the company secretary of the Company (the "Company Secretary"). Ms. HUI is responsible for the company secretarial affairs of the Group. She joined the Group in September 2009. She is a certified public accountant in Hong Kong, a fellow member of the Hong Kong Institute of Certified Public Accountants and the Institute of Chartered Secretaries and Administrators as well as a fellow member of the Hong Kong Institute of Chartered Secretaries. Also, she is a member of the Society of Chinese Accountants and Managements and the Hong Kong Securities Institute. Ms. HUI has over 31 years of professional experience in public accounting and corporate financing.

The Company is committed to ensuring high standards of corporate governance. The Board of Directors (the "Board") believes that good corporate governance practices are increasingly important for maintaining and promoting investors' confidence.

Corporate Governance Code

The Company has adopted the provisions of the Corporate Governance Code and Corporate Governance Report (the "Code") as contained in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange (the "Listing Rules") that is applicable to the corporate governance report for the year ended 31 December 2021, except for the Code provision A.2.1 as set out below.

Dr. Zhang Tianren is both the chairman and CEO of the Company who is responsible for managing the Group's business. The Board considers that vesting the roles of chairman and CEO in the same person facilitates the execution of the Company's business strategies and maximizes the effectiveness of its operation. With the present Board structure and scope of business, the Board considers that there is no imminent need to separate the roles into two individuals. However, the Board will continue to review the effectiveness of the Group's corporate governance structure to assess whether the separation of the position of the chairman and CEO is necessary.

Board of Directors

Composition

During the year ended 31 December 2021, Mr. Wu Feng resigned as an independent non-executive Director with effect from 30 June 2021 and Mr. Xia Yongyao was appointed as an indepdendent non-executive Director with effect from 30 June 2021. As at 31 December 2021, the Board comprised eight members. Dr. Zhang Tianren is an executive Director, the Chairman and CEO of the Company. Mr. Zhang Aogen, Mr. Zhang Kaihong, Mr. Shi Borong and Mr. Zhou Jianzhong are the executive Directors of the Company while Mr. Huang Dongliang, Mr. Zhang Yong and Mr. Xia Yongyao are the independent non-executive Directors of the Company.

Mr. Xia Yongyao subsequently resigned as an independent non-executive Director with effect from 15 March 2022 and Mr. Xiao Gang was appointed as an independent non-executive Director with effect from 15 March 2022. As at the date of this report, the Board comprised eight members, namely Dr. Zhang Tianren (an executive Director, the Chairman and CEO of the Company), Mr. Zhang Aogen (an executive Director), Mr. Zhang Kaihong (an executive Director), Mr. Shi Borong (an executive Director), Mr. Zhou Jianzhong (an executive Director), Mr. Huang Dongliang (an independent non-executive Director), Mr. Zhang Yong (an independent non-executive Director) and Mr. Xiao Gang (an independent non-executive Director). In compliance with Rule 3.10 of the Listing Rules, the Company had three independent non-executive Directors, one of them, namely Mr. Huang Dongliang has appropriate professional accounting experience and expertise.

All Directors have distinguished themselves in their field of expertise, and have exhibited high standards of personal and professional ethics and integrity. The biographical details of each Director are disclosed on pages 38 to 40 of this annual report.

Each independent non-executive Director has pursuant to Rule 3.13 of the Listing Rules, confirmed that he is independent of the Company and the Company also considers each of them to be independent.

Apart from Mr. Zhang Aogen being an elder brother of Dr. Zhang Tianren, the Chairman of the Board, there is no other relationship (including financial, business, family or other material relationship) among members of the Board. All of them are able to make free and independent judgment.

Function

The Board, led by the Chairman, is responsible for formulation and approval of the Group's development, business strategies and policies, approval of business plans, recommendation of dividend and supervision of management. While the management of the Company was given sufficient autonomy by the Board to handle the daily ordinary course of administration and management, when the Board delegates aspects of its management and administration functions to management, it has given clear directions as to the powers of management, in particular, with respect to the circumstances where management shall report back and obtain prior approval from the Board before making decisions or entering into any commitments on behalf of the Company.

There is a formal schedule of matters specifically reserved to and delegated by the Board. The Board had given clear directions to the management of the Company that certain matters (including the following) must be reserved to the Board:

– Publication of final, interim and quarterly results (if any) of the Company;

– Dividend distribution or other distributions;

– Treasury policy, accounting policy and remuneration policy;

– Review on internal control system and risk management;

– Changes to major corporate structure of the Group or Board composition requiring notification by announcement;

– Notifiable transaction and non-exempted connected transaction/continuing connected transaction;

– Proposed transaction requiring Shareholders' approval;

– Capital re-structuring and issue of new securities;

– Joint-venture with outside party involving capital commitment from the Group of over 5% of the relevant size test of the Company; and

– Financial assistance to the Directors.

In addition, the Board carries the function of reviewing the corporate governance practice and disclosure system as follows:

– Review the Company's policies and practices on corporate governance;

– Review and monitor the training and continuous professional development of Directors and senior management;

– Review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;

– Review and monitor the code of conduct and compliance manual (if any) applicable to employees and Directors; and

– Review the Company's compliance with the Code and disclosure in the Corporate Governance Report.

The Company held four Board meetings and one general meeting during the year ended 31 December 2021. The attendance of individual Directors at these meetings was as follows:

Name	Attendance of Board meetings in person	Attendance of general meeting in person
Executive Directors		
Dr. Zhang Tianren	4/4	1/1
Mr. Zhang Aogen	4/4	1/1
Mr. Zhang Kaihong	4/4	1/1
Mr. Shi Borong	4/4	1/1
Mr. Zhou Jianzhong	4/4	1/1
Independent Non-executive Directors:		
Mr. Huang Dongliang	4/4	1/1
Mr. Wu Feng (resigned on 30 June 2021)	1/4	1/1
Mr. Zhang Yong	4/4	1/1
Mr. Xia Yongyao (appointed on 30 June 2021)	3/4	0/1

The term of appointment of the independent non-executive Directors is as follows:

Mr. Huang Dongliang	11 June 2021 to 10 June 2022
Mr. Wu Feng (resigned on 30 June 2021)	6 June 2021 to 5 June 2022
Mr. Zhang Yong	8 August 2021 to 7 August 2022
Mr. Xia Yongyao (appointed on 30 June 2021 and subsequently resigned on 15 March 2022)	30 June 2021 to 29 June 2022
Mr. Xiao Gang (appointed on 15 March 2022)	15 March 2022 to 14 March 2023

The Company has taken out appropriate insurance coverage for the Directors in respect of legal actions taken against Directors and officers of the Group. The Board reviews the extent of the insurance coverage every year.

Responsibilities

In the course of discharging their duties, the Directors act in good faith, with due diligence and care, and in the best interests of the Company and the Shareholders. Their responsibilities include:

– holding regular Board meetings focusing on business strategy, operational issues and financial performance;

– monitoring the quality, timeliness, relevance and reliability of internal and external reporting;

– monitoring and managing the potential conflicts of interest of management, Board members and Shareholders, including misuse of corporate assets and abuse in connected transactions; and

– ensuring readily available processes are in place to maintain the overall integrity of the Company, including financial statements and internal control systems.

Board Diversity

With a view to achieving a sustainable and balanced development, the Company sees increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and its sustainable development. In designing the Board's composition, Board diversity has been considered from a number of aspects, including but not limited to age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. All Board appointments will be based on meritocracy, and candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board. Selection of candidates will be based on a range of diversity perspectives, including but not limited to age, cultural and educational background, professional experience, skills, knowledge and length of service. The ultimate decision will be based on merit and contribution that the selected candidates will bring to the Board. According to Rule 13.92 of the Listing Rules, the above Board diversity policy of the Company has been approved by the Board and adopted by the Nomination Committee (as defined below) on 30 August 2013 and amended with effect from 1 January 2019 in compliance with the Listing Rules.

The nomination committee of the Company (the "Nomination Committee") holds meeting at least once a year to review the diversity of the Board, discusses the measurable objectives, including knowledge, appropriate professional qualifications, relevant business background and experience, skills, relevant management expertise and independence of Directors, and gives recommendation to the Board. During the year, the Nomination Committee took the view that the measurable objectives were achieved to a large extent. It paid particular attention to the cultural and educational background, professional and technical experience, and skills of the members of Board and also reviewed the composition of executive Directors and independent non-executive Directors so as to ensure appropriate independence within the Board.

Directors' Training

Pursuant to Provision A.6.5 of the Code, all Directors should participate in continuous professional development to develop and refresh their knowledge and skills. The Directors have been given relevant guideline materials to ensure that they are apprised of the latest changes in the commercial, legal and regulatory requirements in relation to the Company's businesses, and to refresh their knowledge and skills on the roles, functions and duties of a listed company director.

For the period from 1 January 2021 to 31 December 2021, all Directors provided their records of training to the Company. All Directors, namely Dr. Zhang Tianren, Mr. Zhang Aogen, Mr. Zhang Kaihong, Mr. Shi Borong, Mr. Zhou Jianzhong, Mr. Huang Dongliang, Mr. Wu Feng (resigned on 30 June 2021), Mr. Zhang Yong, and Mr. Xia Yongyao (appointed on 30 June 2021), participated in continuous professional development mainly by reading various materials regarding directors' responsibilities, prevention of breaching the Listing Rules and disclosure of inside information, etc.

Company Secretary's Training

Pursuant to Rule 3.29 of the Listing Rules, the Company Secretary must take no less than 15 hours of relevant professional training in each financial year. The Company Secretary provided her training records to the Company indicating that she had taken more than 15 hours of relevant professional development by means of attending in-house briefings and seminars and reading relevant guideline materials.

Shareholders' Rights

Set out below is a summary of certain rights of the Shareholders as required to be disclosed pursuant to the Code.

Convening an extraordinary general meeting and procedures for putting forward proposals by Shareholders at general meeting

Each general meeting other than an annual general meeting shall be called an extraordinary general meeting. General meetings may be held in any part of the world as may be determined by the Board.

According to Article No. 58 of the Company's articles of association, any one or more members holding at the date of deposit of the requisition not less than one-tenth of the paid up capital of the Company carrying the right of voting at general meetings of the Company shall at all times have the right, by written requisition to the secretary of the Board of the Company, to require an extraordinary general meeting to be called by the Board for the transaction of any business specified in such requisition; and such meeting shall be held within two months after the deposit of such requisition.

If within twenty-one days of such deposit the Board fails to proceed to convene such meeting, the requisitionist(s) himself (themselves) may do so in the same manner, and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to the requisitionist(s) by the Company.

Any requisition to convene an extraordinary general meeting or proposal to be put forward at the general meeting can be addressed to the principal place of business of the Company in Hong Kong marked with the attention of the Company Secretary. The requisitionists must state in their request(s) the objects of the extraordinary general meeting to be convened, and such request must be signed by all the requisitionists. Upon receipt, the Company will verify the requisitionists' particulars and if the request is in order, the Company will convene the extraordinary general meeting in accordance with its articles of association.

Enquiries from Shareholders to the Board

In order to ensure effective communication between the Shareholders and the Board, the Company adopted the Shareholders communication procedures on 24 February 2012. According to the Shareholders communication procedures, the Board should be responsible for maintaining an on-going dialogue with the Shareholders and in particular, use annual general meetings or other general meetings to communicate with them and encourage their participation. The Chairman of the Board should attend the annual general meeting. He should also invite the independent non-executive Directors, chairmen of the audit, remuneration, nomination and any other committees (as appropriate) to attend. In their absence, the chairman should invite another member of the committee or failing this, his duly appointed delegate, to attend. These persons should be available to answer questions at the annual general meeting.

The chairman of the independent Board committee (if any) should also be available to answer questions at any general meeting to approve a connected transaction or any other transaction that requires independent Shareholders' approval.

Shareholders and investors are welcome to visit the Company's website and raise enquiries through our Investor Relations Department and/or our Company's public relations representative (Porda Havas International Finance Communications (Group) Holdings Company Limited) whose contact details are available on the website.

Remuneration Committee

The Company has established a remuneration committee (the "Remuneration Committee") with specific terms of reference which deal clearly with its duties and responsibilities. Mr. Wu Feng ceased to be the chairman of the Remuneration Committee since his resignation as an independent non-executive Director with effect from 30 June 2021 and Mr. Xia Yongyao was appointed as the chairman of the Remuneration Committee since his appointment as an independent non-executive Director with effect from 30 June 2021. As at 31 December 2021, the Remuneration Committee had three members, comprising Mr. Xia Yongyao (chairman), Mr. Huang Dongliang and Mr. Zhang Aogen.

Mr. Xia Yongyao subsequently ceased to be the chairman of the Remuneration Committee since his resignation as an independent non-executive Director with effect from 15 March 2022 and Mr. Xiao Gang was appointed as the chairman of the Remuneration Committee since his appointment as an independent non-executive Director with effect from 15 March 2022. As at the date of this report, the Remuneration Committee had three members, comprising Mr. Xiao Gang (chairman), Mr. Huang Dongliang and Mr. Zhang Aogen.

The terms of reference of the Remuneration Committee follow the guidelines set out in the Code and it is mainly responsible for making recommendations to the Board on the Company's policy for the remuneration of Directors and senior management.

The Remuneration Committee shall meet at least once a year. One committee meeting was held in 2021 to approve and adopt the revised terms of reference of the Remuneration Committee. The attendance of each member is set out as follows:

Name	Meeting held	Meeting attended in person
Mr. Huang Dongliang	1	1
Mr. Wu Feng (resigned on 30 June 2021)	1	1
Mr. Zhang Aogen	1	1
Mr. Xia Yongyao (appointed on 30 June 2021)	1	0

During the Remuneration Committee meeting, proposal for adjustment of remuneration package for Directors and senior management ("the Proposal") was reviewed and approved by the Remuneration Committee and the Proposal was proposed to the Board for approval. The Proposal was approved by the Board.

Nomination Committee

The Company has established the Nomination Committee with specific terms of reference which deal clearly with its duties and responsibilities. Mr. Wu Feng ceased to be a member of the Nomination Committee since his resignation as an independent non-executive Director with effect from 30 June 2021 and Mr. Xia Yongyao was appointed as a member of the Nomination Committee since his appointment as an independent non-executive Director with effect from 30 June 2021. As at 31 December 2021, the Nomination Committee had three members, comprising Dr. Zhang Tianren (the chairman), Mr. Huang Dongliang and Mr. Xia Yongyao.

Mr. Xia Yongyao subsequently ceased to be a member of the Nomination Committee since his resignation as an independent non-executive Director with effect from 15 March 2022 and Mr. Xiao Gang was appointed as a member of the Nomination Committee since his appointment as an independent non-executive Director with effect from 15 March 2022. As at the date of this report, the Nomination Committee had three members, comprising Dr. Zhang Tianren (the chairman), Mr. Huang Dongliang and Mr. Xiao Gang.

The terms of reference of the Nomination Committee have been determined with reference to the Code. The Nomination Committee is responsible for identifying potential new Directors and recommending to the Board for decision. A Director appointed by the Board is subject to re-election by the Shareholders at the first annual general meeting after his/her appointment. Under the Company's articles of association, at each annual general meeting, one-third of the Directors for the time being (or if their number is not a multiple of three, the number nearest to but not less than one-third) shall retire from office by rotation provided that every Director shall be subject to retirement by rotation at an annual general meeting at least once every three years.

Appointment and Re-election of Directors

The Board has established and adopted a written nomination policy (the "Nomination Policy") specifying the process and criteria for the selection and recommendation of candidates for directorship of the Company.

Selection criteria

The Nomination Committee shall, based on those criteria as set out in the Nomination Policy (such as reputation for integrity, qualifications and experience, time commitment and contribution to diversity of the Board according to the Board diversity policy, etc.), identify and recommend the proposed candidate to the Board for approval of an appointment. In the case of re-appointment of Director, the Nomination Committee would take into account factors such as contribution, attendance in meetings and level of participation from the retiring Directors. Where the candidate is appointed for the position of independent non-executive Director, the Nomination Committee will also assess his/her independence with reference to the requirements set out in the Listing Rules.

Nomination procedures

In appointing a new Director, the Nomination Committee and/or the Board will first call a meeting of the Nomination Committee and invite nominations of candidates from Board members for its consideration prior to the meeting. The Nomination Committee may also put forward candidates who are not nominated by the Board. The Nomination Committee shall then make recommendations for the Board's consideration and approval. The information, including biography, independence (for nomination of non-executive or independent non-executive Directors only), proposed remuneration and other information as required under the applicable laws and regulations will be included in the circular to Shareholders. A Shareholder may also serve to the principal place of business of the Company in Hong Kong a notice in writing for its intention to propose a resolution to elect a certain candidate as Director and a notice by the nominated person of his/her willingness to be elected according to the articles of association, without the Board's recommendation or nomination of the Nomination Committee other than those candidates as set out in the circular. The Board shall then consider and have the final decision on all matters relating to whether to have the recommended candidates to stand for election at a general meeting. The Nomination Committee shall ensure the transparency and fairness of the selection procedure.

New Directors, on appointment, will be given an induction package containing all key legal and Listing Rules' requirements as well as guidelines on the responsibilities and obligations to be observed by a Director. The package will also include the latest published financial reports of the Company and the documentation for the corporate governance practices adopted by the Board. The senior management will subsequently conduct such briefing as is necessary to give the new Directors more detailed information on the Group's operations, business and activities.

According to Clause 87 of the articles of association of the Company, at each annual general meeting one-third of the Directors for the time being (or, if their number is not a multiple of three (3), then the number nearest to but not less than one-third) shall retire from office by rotation provided that every Director shall be subject to retirement at an annual general meeting at least once every three years. A retiring Director shall be eligible for re-election and shall continue to act as a Director throughout the meeting at which he retires. The Directors to retire by rotation shall include (so far as necessary to ascertain the number of Directors to retire by rotation) any Director who wishes to retire and not to offer himself for re-election. Any further Directors so to retire shall be those of the other Directors subject to retirement by rotation who have been longest in office since their last re-election or appointment and so that as between persons who became or were last re-elected Directors on the same day those to retire shall (unless they otherwise agree among themselves) be determined by lot. Any Director appointed by the Board pursuant to Article 86(3) shall not be taken into account in determining which particular Directors or the number of Directors who are to retire by rotation. The Directors shall have the power from time to time and at any time to appoint any person as a Director either to fill a casual vacancy on the Board or as an addition to the existing Board. Any Director appointed by the Board to fill a casual vacancy shall hold office until the first general meeting of members after his appointment and be subject to re-election at such meeting and any Director appointed by the Board as an addition to the existing Board shall hold office only until the next annual general meeting of the Company and shall then be eligible for re-election.

According to code provision A.4.2 of the Code of the Listing Rules, all Directors appointed to fill a casual vacancy should be subject to election by Shareholders at the first general meeting after appointment. Every Director, including those appointed for a specific term, should be subject to retirement by rotation at least once every three years. Potential new Directors are selected on the basis of their qualification, skills and experience which the Nomination Committee considers will make a positive contribution to the performance of the Board.

When making recommendations regarding the appointment of any proposed candidate to the Board or re-appointment of any existing member(s) of the Board, the Nomination Committee shall consider a variety of factors including without limitation the following in assessing the suitability of the proposed candidate:

a. Reputation for integrity;

b. Qualifications including professional qualifications, skills, knowledge and experience that are relevant to the Company's business and corporate strategy;

c. Willingness to devote adequate time to discharge duties as a Board member and other directorships and significant commitments;

d. Diversity in all aspects, including but not limited to gender, age (18 years or above), cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service; and

e. Such other perspectives appropriate to the Company's business.

These factors are for reference only, and are not meant to be exhaustive and decisive. The Nomination Committee may consider other factors so as to ensure that the Board has a balance of skills, experience and diversity of perspectives appropriate to the requirements of the Company's business. The Nomination Committee has the discretion to nominate any person, as it considers appropriate.

The Nomination Committee shall meet at least once a year. One committee meeting was held in 2021 to review the composition of the Board, consider the independence of the independent non-executive Directors and the retirement of Directors. The attendance of each member is set out as follows:

Name	Meeting held	Meeting attended in person
Dr. Zhang Tianren	1	1
Mr. Huang Dongliang	1	1
Mr. Wu Feng (resigned on 30 June 2021)	1	1
Mr. Xia Yongyao (appointed on 30 June 2021)	1	0

Remuneration of the Senior Management and Directors

The remuneration of the senior management of our Group for the year ended 31 December 2021 falls within the following band:

	Number of People
Nil to RMB1,000,000	4

Model Code for Securities Transactions by Directors

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") contained in Appendix 10 to the Listing Rules. Having made specific enquiry, all directors of the Company have complied with the required standard set out in the Model Code throughout the year ended 31 December 2021.

Audit Committee

The Company has established an audit committee (the "Audit Committee") in compliance with Rule 3.21 of the Listing Rules. Mr. Wu Feng ceased to be a member of the Audit Committee since his resignation as an independent non-executive Director with effect from 30 June 2021 and Mr. Xia Yongyao was appointed as a member of the Audit Committee since his appointment as an independent non-executive Director with effect from 30 June 2021. As at 31 December 2021, the Company's Audit Committee comprised three independent non-executive Directors, namely Mr. Huang Dongliang (chairman), Mr. Zhang Yong and Mr. Xia Yongyao.

Mr. Xia Yongyao subsequently ceased to be a member of the Audit Committee since his resignation as an independent non-executive Director with effect from 15 March 2022 and Mr. Xiao Gang was appointed as a member of the Audit Committee since his appointment as an independent non-executive Director with effect from 15 March 2022. As at the date of this report, the Audit Committee comprised three independent non-executive Directors, namely, Mr. Huang Dongliang (chairman), Mr. Zhang Yong and Mr. Xiao Gang.

The primary duties of the Audit Committee (inter alia) are to review the financial reporting process and internal control system of the Group, and to make proposals to the Board as to appointment, renewal and resignation of the Company's independent external auditors and the related remuneration and appointment terms. The Audit Committee has reviewed the annual report with the management and the Company's independent external auditors and recommended its adoption by the Board.

The written terms of reference, which describe the authority and duties of the Audit Committee, are regularly reviewed and were updated by the Board to comply with provision C.3.3 of the Code in 2021. The Audit Committee held two meetings during the year ended 31 December 2021. The attendance of each member is set out as follows:

Name	**Meetings held**	**Meetings attended in person**
Mr. Huang Dongliang	2	2
Mr. Wu Feng (resigned on 30 June 2021)	2	1
Mr. Zhang Yong	2	2
Mr. Xia Yongyao (appointed on 30 June 2021)	2	1

The Audit Committee oversees the financial reporting process. In this process, the management of the Company is responsible for the preparation of the Group's financial statements including the selection of suitable accounting policies. Independent external auditors are responsible for auditing and attesting to the Group's financial statements and evaluating the Group's system of internal controls. The Audit Committee oversees the respective works of the management and the independent external auditors to monitor the processes and safeguards deployed by them. The Audit Committee reports to the Board on its findings after each of its meeting. With effect from 1 January 2021, the Audit Committee oversees the Group's risk management system.

The Audit Committee reviewed and discussed the Group's financial statements for the year ended 31 December 2021 with the management and independent external auditors. The Audit Committee also received reports and met with the independent external auditors to discuss the general scope of their audit work and their assessment of the Group's internal controls.

Based on these reviews, discussions and the report of the independent external auditors, the Audit Committee recommended for the Board's approval of the consolidated financial statements for the six months ended 30 June 2021 and the year ended 31 December 2021, with the Auditors' Report thereon.

The Audit Committee recommended to the Board that the Shareholders be asked to re-appoint ZHONGHUI ANDA CPA Limited ("ZHONGHUI ANDA") as the Group's independent external auditor for the year ending 31 December 2022.

Independent External Auditor

Deloitte Touche Tohmatsu ("Deloitte") has resigned as the auditor of the Group with effect from 18 December 2019 after taking into account, among other factors, the level of audit fees, the professional risk associated with the audit and its available internal resources in light of current work flows for the Company's financial year ending 31 December 2019.

The Board, with the recommendation from the Audit Committee, has resolved to appoint ZHONGHUI ANDA as the new auditor of the Group with effect from 24 December 2019 to fill the casual vacancy following the resignation of Deloitte and to hold office until the conclusion of the forthcoming annual general meeting of the Company.

Deloitte has confirmed in its letter of resignation dated 18 December 2019 that there were no matters connected to its resignation as the auditor of the Group that need to be brought to the attention of holders of the Company's securities or the Company's creditors. In addition, there were no circumstances connected with its resignation that Deloitte considers should be brought to the attention of members or creditors of the Company's subsidiaries established in Hong Kong.

The Board and the Audit Committee confirmed that there was no disagreement or dispute between the Company and Deloitte except for the 2019 annual audit fee and that there were no unresolved issues concerning the change of the auditor. The Board and the Audit Committee also confirmed that there were no other matters or circumstances connected to the change of the Group's auditor that need to be brought to the attention of holders of the Company's securities or the Company's creditors.

The Audit Committee reviews a letter from the independent external auditor of the Company, ZHONGHUI ANDA, confirming its independence, approves its appointment, discusses the scope of its audit and approves its fees.

ZHONGHUI ANDA has provided annual statutory audit services in respect of the Company's financial statements prepared under HKFRSs for the year ended 31 December 2021. ZHONGHUI ANDA has also reviewed the 2021 unaudited interim financial report of the Company, prepared under HKFRSs.

During the year ended 31 December 2021, the fee paid and payable to ZHONGHUI ANDA in respect of audit and audit related services amounted to approximately RMB1,920,000. In respect of non-audit services, the fees paid and payable to ZHONGHUI ANDA relating to review on interim financial report amounted to approximately RMB580,000.

Save as disclosed above, there were no other changes in auditor of the Company during the past three years.

Internal Control and Risk Management

The Board is responsible for maintaining an adequate system of internal controls within the Group and reviewing their effectiveness at least annually, covering all material controls, including financial, operational and compliance controls as well as risk management functions. The Board is committed to strengthening the Group's internal control system, and has established a series of internal control policies and procedures. The system of internal controls is designed to facilitate effective and efficient operations, to safeguard assets and to ensure the quality of internal and external reporting and compliance with applicable laws and regulations. It is also designed to provide reasonable, but not absolute, assurance that material misstatement or loss can be avoided, and to manage and minimize risks of failure in operation systems.

The Company engaged an international professional management consultancy firm, BT Corporate Governance Limited ("BTCG"), to assess and evaluate the risk and effectiveness of its system of internal controls up to 31 December 2021. The Audit Committee members, together with the senior management, have reviewed, considered and discussed all the findings and recommendations of the internal control review relating to the internal control system that operates within the Group, and the Audit Committee is satisfied that the internal control system of the Group is sound and adequate. Pursuant to the system improvement recommendations made by BTCG, the Group will continue to improve its internal management and control systems.

The Board has also conducted an annual review on the effectiveness of the accounting and financial reporting function of the Company and takes the view that the Company possesses adequate resources and its staff are equipped with suitable qualifications and experience in this regard.

Going forward, the Company will conduct regular reviews of the Company's internal control and risk management systems and their effectiveness to ensure that the interest of the Shareholders is safeguarded.

Going Concern

The Directors, having made appropriate enquiries, consider that the Company has adequate resources to continue in operational existence for the foreseeable future and that, for this reason, it is appropriate to adopt the going concern basis in preparing the financial statements.

Communication with Shareholders

The objective of Shareholder communication is to provide the Shareholders with detailed information about the Company so that they can exercise their rights as the Shareholders in an informed manner. The Company uses a range of communication tools to ensure the Shareholders are kept well informed. These include general meeting, annual report, various notices, announcements and circulars. Procedure for demanding voting by poll has been included in all circulars accompanying notice convening general meeting and the detailed procedures for conducting a poll has been read out by the Chairman at general meeting. The general meeting provides the Shareholders with a useful forum and encourages the Shareholders to attend the general meetings of the Company to raise comments and exchange views with the Board. The Chairman, Directors and independent external auditor, where appropriate, are available to answer questions at the meeting.

Directors' Responsibility in Preparing the Financial Statements

The Directors acknowledge that it is their responsibilities to prepare the financial statements. The responsibilities of the independent external auditor with respect to financial reporting are set out in the Independent Auditor's Report on page 69 to page 71.

Constitutional Documents

There are no significant changes in the Company's constitutional documents during the year ended 31 December 2021.

CONTINUING CONNECTED TRANSACTION/CONNECTED TRANSACTION

Continuing Connected Transaction

Master Purchase Agreement

Background

As set out in the announcement dated 25 December 2020, Zhejiang Changtong Technology Company Limited* (浙江暢通科技有限公司) ("Zhejiang Changtong") is a company established in the PRC. As Ms. Zhang Mei'e, being the sister of Dr. Zhang Tianren (an executive Director, the Chairman of the Board and a controlling shareholder (as defined in the Listing Rules) of the Company) and Mr. Zhang Aogen (an executive Director), acquired 90% shareholding interest in Zhejiang Changtong in December 2019, Zhejiang Changtong then became a company directly and jointly owned by Ms. Zhang Mei'e and her spouse, Mr. Ni Danqing, as to 90% and 10%, respectively. As Ms. Zhang Mei'e and Mr. Ni Danqing are associates (as defined in the Listing Rules) of Dr. Zhang Tianren and Mr. Zhang Aogen, Zhejiang Changtong has become a connected person (as defined in the Listing Rules) of the Company since the completion of the change of business registration in respect of the equity transfer on 30 December 2019 by virtue of Rule 14A.12(2) of the Listing Rules.

Reasons for the transaction

As Zhejiang Changtong produces certain plastic and glass fiber components, which are the essential materials for the production of the components of lead storage batteries by the Company, purchasing these components from Zhejiang Changtong is part of the Company's ordinary businesses.

Pricing basis and policy

On 25 December 2020, the Company entered into the 2021-23 Master Purchase Agreement (the "2021-23 MPA") with Zhejiang Changtong for the purchase of certain components for its production of lead storage batteries (including plastic and glass fiber components) by member(s) of the Group from Zhejiang Changtong during the 3-year period commencing 1 January 2021 and expiring on 31 December 2023, both days inclusive.

In respect of the pricing of the products purchased from Zhejiang Changtong, agreed prices should be comparable with prevailing market prices; and agreed prices should be no less favourable than those offered to independent third party enterprises of the same industry as the Group at the material time, to the extent that those products are of comparable nature, quality, brand and specification.

* for identification purpose only

Continuing Connected Transaction (Continued)

Exemption and annual caps

The estimated aggregate consideration for the transactions under the 2021-23 MPA for the year ended 31 December 2021 was approximately RMB520,000,000.

Actual transaction values for the year

The total transaction amount under the 2021-23 MPA entered into with Zhejiang Changtong for the year ended 31 December 2021 was approximately RMB 515,827,000.

The independent non-executive Directors have reviewed the above continuing connected transactions, and confirmed that they have been entered into:

a) in the ordinary and usual course of businesses of the Group;

b) on normal commercial terms; and

c) in accordance with the relevant written agreements governing them on terms that are fair and reasonable and in the interests of the Shareholders as a whole.

The auditor of the Company was engaged to perform works on the continuing connected transactions set out above in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" issued by the Hong Kong Institute of Certified Public Accountants. The auditor has provide a letter to the Board confirming that the continuing connected transactions disclosed above:

(1) have been approved by the listed issuer's Board;

(2) were, in all material respects, in accordance with the pricing policies of the Group;

(3) were entered into, in all material respects, in accordance with the relevant agreements governing the transaction; and

(4) have not exceeded the cap.

A copy of the auditor's letter will be provided by the Company to the Hong Kong Stock Exchange.

Connected Transaction

Capital Increase Arrangements of Joint Venture Companies

On 26 February 2021, Tianneng Holding Group Co., Ltd.* (天能控股集團有限公司) ("Tianneng Holding") and Tianchang Holding Co., Ltd.* (天暢控股有限公司) ("Tianchang Holding") entered into the capital increase arrangement ("Capital Increase Arrangement (Factoring)"), pursuant to which the parties agreed to make additional capital contributions to Tianneng (Tianjin) Commercial Factoring Co., Ltd.* (天能(天津)商業保理有限公司) ("Tianneng Factoring") in proportion to their respective equity interests in Tianneng Factoring, whereas Tianneng Holding, Zhejiang Changxing Tianneng Financial Holding Co., Ltd.* (浙江長興天能金融控股有限公司) ("Tianneng Financial") and Prime Leader Global Limited ("Prime Leader") also entered into the capital increase arrangement ("Capital Increase Arrangement (Finance Leases)", together with the "Capital Increase Arrangement (Factoring)", collectively "Capital Increase Arrangements"), pursuant to which the parties agreed to make additional capital contributions to Tianneng Finance Leases (Tianjin) Co., Ltd.* (天能融資租賃(天津)有限公司) ("Tianneng Finance Leases") in proportion to their respective equity interests in Tianneng Finance Leases.

Upon completion of the Capital Increase Arrangements, the registered capital of Tianneng Factoring shall increase from RMB50.0 million to RMB100.0 million, and the proportion of equity interests of each of Tianneng Holding and Tianchang Holding in Tianneng Factoring will remain unchanged, whereas the registered capital of Tianneng Finance Leases shall increase from RMB170.0 million to RMB300.0 million, and the proportion of equity interests of each of Tianneng Holding, Tianneng Financial and Prime Leader in Tianneng Finance Leases will remain unchanged.

On 26 February 2021, Tianchang Holding's equity interest is owned as to 98% and 2% by Dr. Zhang Tianren ("Dr. Zhang") and Mr. Zhang Hao ("Mr. Zhang"), respectively, whereas Prime Leader is wholly-owned by Dr. Zhang. Dr. Zhang is a controlling shareholder and an executive Director of the Company and Mr. Zhang is a son of Dr. Zhang. Accordingly, each of Tianchang Holding and Prime Leader is an associate of Dr. Zhang and a connected person of the Company pursuant to the Listing Rules. As a result, the entering into of the Capital Increase Arrangements constitutes connected transactions of the Company under Chapter 14A of the Listing Rules. Pursuant to Rule 14A.76(2) of the Listing Rules, as all of the applicable percentage ratios (as defined in the Listing Rules) in respect of the Capital Increase Arrangements on an aggregated basis exceed 0.1% but are less than 5%, the Capital Increase Arrangements will be subject to the reporting and announcement requirements but exempt from the circular and independent Shareholders' approval requirements as set out in Chapter 14A of the Listing Rule. For further details, please refer to the announcement of the Company dated 26 February 2021. Completion of the Capital Increase Arrangements took place on 25 May 2021.

The Directors confirmed that the Company has complied with the applicable requirements under Chapter 14A of the Listing Rules with regard to those related party transactions which constituted connected transaction and continuing connected transaction, namely the Capital Increase Arrangements and transactions under the 2021-23 MPA (which are subject to disclosure and/or independent Shareholders' approval requirements). Save for the aforementioned, other related party transactions as set out in note 46 to the financial statements did not constitute connected transaction/continuing connected transaction under the Listing Rules..

The Directors present their annual report and the audited consolidated financial statements for the year ended 31 December 2021.

Principal Activities

The Company acts as an investment holding company and provides corporate management services. The Group is principally engaged in the production of motive batteries in China. The activities of principal subsidiaries are shown in note 49 to the consolidated financial statements.

Results and Appropriations

The results of the Group for the year ended 31 December 2021 are set out in the consolidated statement of profit or loss and other comprehensive income on page 72. The Directors propose to declare a final dividend of HK40.00 cents per Share (2020: HK40.00 cents).

Property, Plant and Equipment

During the year, approximately RMB348 million and RMB253 million construction in progress were completed and transferred to buildings and plant and machinery, respectively. During the year, the Group continued to expand its manufacturing facilities. The Group acquired buildings, plant and machinery for approximately RMB642 million. Details of these and other movements in the property, plant and equipment of the Group during the year are set out in note 18 to the consolidated financial statements.

Business Review

Details of the Company's business review are set out in the "Management Discussion and Analysis" section of this annual report, of which this Directors' Report forms part.

Share Capital and Issue of Securities

Details of the movement during the year in the share capital of the Company are set out in note 39 to the consolidated financial statements.

During the year, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed securities.

Distributive Reserves

As at 31 December 2021, the Company's reserve available for distribution amounted to approximately RMB756 million (2020: RMB727 million). Under the Company Law (Revised) Chapter 25 of the Cayman Islands, the share premium of the Company is available for distribution or paying dividends to Shareholders subject to the provisions of its memorandum or articles of association and provided that immediately following the distribution of dividends, the Company is able to pay its debts as they fall due in the ordinary course of business.

Directors

The directors of the Company during the year and up to the date of this report were:

Executive Directors:
Dr. Zhang Tianren *(Chairman)*
Mr. Zhang Aogen
Mr. Zhang Kaihong
Mr. Shi Borong
Mr. Zhou Jianzhong

Independent non-executive Directors:
Mr. Huang Dongliang
Mr. Wu Feng (resigned on 30 June 2021)
Mr. Zhang Yong
Mr. Xia Yingyao (appointed on 30 June 2021 and subsequently resigned on 15 March 2022)
Mr. Xiao Gang (appointed on 15 March 2022)

The term of appointment of the independent non-executive Directors is as follows:

Mr. Huang Dongliang	11 June 2021 to 10 June 2022
Mr. Wu Feng (resigned on 30 June 2021)	6 June 2021 to 5 June 2022
Mr. Zhang Yong	8 August 2021 to 7 August 2022
Mr. Xia Yingyao (appointed on 30 June 2021 and subsequently resigned on 15 March 2022)	30 June 2021 to 29 June 2022
Mr. Xiao Gang (appointed on 15 March 2022)	15 March 2022 to 14 March 2023

In accordance with Article 87 of the Company's articles of association, Mr. Zhang Aogen, Mr. Zhou Jianzhong and Mr. Huang Dongliang will retire from office and, being eligible, offer themselves for re-election at the forthcoming annual general meeting ("AGM").

In accordance with Article 86(3) of the Company's articles of association, Mr. Xiao Gang will retire from office and, being eligible, offer himself for re-election at the forthcoming AGM.

Directors' Service Contracts

All of the executive Directors and independent non-executive Directors of the Company have entered into services contracts or a letter of appointment with the Company respectively. The term of appointment of Dr. Zhang Tianren, Mr. Zhang Aogen, Mr. Zhang Kaihong, Mr. Shi Borong and Mr. Huang Dongliang, is 3 years from 11 June 2007; the term of appointment of Mr. Zhou Jianzhong is 3 years from 27 March 2015; the term of appointment of Mr. Zhang Yong is years from 8 August 2021; the term of appointment of Mr. Wu Feng (resigned as an independent non-executive Director on 30 June 2021) is 1 year from 6 June 2021 to 5 June 2022; the term of appointment of Mr. Xia Yongyao (resigned as an independent non-executive Director on 15 March 2022) is 1 year from 30 June 2021 to 29 June 2022; the term of appointment of Mr. Xiao Gang is 1 year from 15 March 2022 to 14 March 2023. The term of appointment of each Director is renewable by mutual agreement of both parties unless terminated by not less than three months' prior notice in writing served by either party. All Directors are subject to retirement by rotation and re-election at the Company's AGM at least once every three years in accordance with Article No. 87 of the Company's articles of association.

Save as disclosed above, no Director proposed for re-election at the AGM has a service contract which is not terminable by the Group within one year without payment of compensation (other than statutory compensation).

Permitted Indemnity

The Company has taken out appropriate insurance coverage for the Directors in respect of legal actions taken against Directors and officers of the Group. The Board reviews the extent of the insurance coverage every year.

Directors' and Chief Executive's Interests in Shares, Underlying Shares and Debentures

As at 31 December 2021, the interests and the short positions of the Directors and the chief executive of the Company in the Shares, underlying Shares and the debentures of the Company and its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance ("SFO")), as recorded in the register maintained by the Company under Section 352 of the SFO or as notified to the Company and the Stock Exchange pursuant to the Model Code were as follows:

Directors' and Chief Executive's Interests in Shares, Underlying Shares and Debentures (Continued)

(a) Long positions

Ordinary Shares of HK$0.1 each of the Company:

Name of Director	Capacity	Number of interested Shares held (note 1)	Aggregate approximate percentage of issued share capital of the Company (note 7)
Zhang Tianren	Interest of a controlled corporation (note 2)	410,355,650 (L)	36.44%
	Interest of spouse (note 2)	438,000 (L)	0.04%
Zhang Aogen	Interest of a controlled corporation (note 3)	13,641,022 (L)	1.21%
Zhang Kaihong	Interest of a controlled corporation (note 4)	18,884,174 (L)	1.68%
Shi Borong	Interest of a controlled corporation (note 5)	15,686,141 (L)	1.39%
Zhou Jianzhong	Interest of a controlled corporation (note 6)	2,362,815 (L)	0.21%
Huang Dongliang	Beneficial owner	240,000 (L)	0.02%

Notes:

1. The letters "L" and "S" denote long position and short position in the Shares of the Company respectively.
2. The 410,355,650 Shares of the Company were held by Prime Leader Global Limited, which was wholly-owned by Dr. Zhang Tianren. 438,000 Shares are held by Ms. Yang Yaping and the interest in the remaining 180,000 Shares arises from the share options granted to Ms. Yang Yaping, spouse of Dr. Zhang Tianren.
3. The 13,641,022 Shares of the Company were held by Top Benefits International Limited, which was wholly-owned by Mr. Zhang Aogen.
4. The 18,884,174 Shares of the Company were held by Plenty Gold Holdings Limited, which was wholly-owned by Mr. Zhang Kaihong.
5. The 15,686,141 Shares of the Company were held by Precise Asia Global Limited, which was wholly-owned by Mr. Shi Borong.
6. The 2,362,815 Shares of the Company were held by Centre Wealth Limited, which was wholly-owned by Mr. Zhou Jianzhong.
7. Shareholding percentage is based on 1,126,124,500 issued Shares of the Company as at 31 December 2021.

Directors' and Chief Executive's Interests in Shares, Underlying Shares and Debentures (Continued)

(b) Other interests and short positions

Save as disclosed above, on 16 June 2014, the Company has granted 58,660,000 options to subscribe for Shares in accordance with the Company's share option scheme adopted pursuant to a resolution passed by the then Shareholders on 26 February 2007 (the "Scheme"). Among the options, 2,215,000 options were granted to the associates of the Directors. The names of the grantees who are associates of the Directors were listed in the announcement dated 16 June 2014.

Retirement Benefits Scheme

Details of the retirement benefits scheme of the Group are set out in note 44 to the consolidated financial statements.

Directors' Rights to Acquire Shares or Debentures

Save as disclosed on pages 64 and 65, at no time during the year was the Company, its parent company or any of its subsidiaries a party to any arrangements to enable the Directors of the Company or any of their spouses or children under 18 years of age to acquire benefits by means of acquisition of shares in, or debt securities, including debentures, of the Company or any other body corporate.

Directors' Interest in Competitors

As at the date of this report, within the knowledge of the Directors, no Director or any of his/her respective associates has any interest in a business which competes or may compete with the business of the Group.

Directors' Interests in Contracts of Significance

No transaction, arrangement or contract of significance, to which the Company, or any of its subsidiaries was a party and in which a Director or any entity in connection with any Director had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

Changes in Information of Directors and Chief Executives

Pursuant to Rule 13.51B of the Listing Rules, the changes in information of Directors/chief executives subsequent to the publication of the interim report of the Company for the six months ended 30 June 2021 are set out below:

Name of Director	Details of Changes
Mr. Xia Yongyao	resigned as an independent non-executive Director, the chairman of the Remuneration Committee and a member of each of the Audit Committee and Nomination Committee with effect from 15 March 2022
Mr. Xiao Gang	appointed as an independent non-executive Director, the chairman of the Remuneration Committee and a member of each of the Audit Committee and Nomination Committee with effect from 15 March 2022

Management Contracts

No contracts concerning the management and administration of the whole and any substantial part of the business of the Company were entered into or existed during the year.

Substantial Shareholders

As at 31 December 2021, the register of substantial Shareholders maintained by the Company pursuant to Section 336 of the SFO shows that the following persons, other than a Director or chief executive of the Company, had notified the Company of relevant interests and short positions in the Shares or underlying Shares of the Company which would have to be disclosed to the Company and the Stock Exchange pursuant to Divisions 2 and 3 of Part XV of the SFO in the issued share capital of the Company:

Ordinary Shares of HK$0.1 each of the Company:

Name of Shareholder	Capacity	Number of Shares held (Note 1)	Approximate percentage of issued share capital of the Company (Note 4)
Zhang Tianren	Interest of a controlled corporation (Note 2)	410,355,650 (L)	36.44%
	Interest of spouse (Note 2)	438,000(L)	0.04%
Yang Yaping	Beneficial owner (Note 2)	438,000 (L)	0.04%
	Interest of spouse (Note 2)	410,355,650 (L)	36.44%
Prime Leader Global Limited	Beneficial owner	410,355,650 (L)	36.44%

Notes:

1. The letters "L" and "S" denote long position and short position in the Shares of the Company respectively.

2. The 410,355,650 Shares were held by Prime Leader Global Limited, which was wholly-owned by Dr. Zhang Tianren. 438,000 Shares are held by Ms. Yang Yaping and the interest in the remaining 180,000 Shares arises from the share options granted to Ms. Yang Yaping, spouse of Dr. Zhang Tianren. Ms. Yang Yaping, being the spouse of Dr. Zhang Tianren, is deemed to be interested in the Shares held by Dr. Zhang Tianren.

3. Shareholding percentage is based on 1,126,124,500 issued Shares of the Company as at 31 December 2021.

Share Options

The Scheme was adopted pursuant to a resolution passed by the Shareholders on 26 February 2007 for the primary purpose of providing incentives or rewards to selected participants for their contribution to the Group. Details of the Scheme are set out in Note 41 to the financial statements. An ordinary resolution was passed at the annual general meeting of the Company held on 16 May 2014 (the "2014 AGM") relating to the refreshment of scheme mandate limit of the Scheme as set out in the supplemental notice of the 2014 AGM. The Scheme expired on 10 June 2017.

On 30 March 2009, a total of 36,340,000 share options were offered to the eligible participants under the Scheme. 35,310,000 share options were accepted and granted on the same day. On 22 November 2010, a total of 44,720,000 share options were offered and granted to the Directors and eligible participants under the Scheme. After the refreshment of the Scheme, on 16 June 2014, a total of 58,660,000 options were offered and granted to the Directors and eligible participants. The details of the movement of the Company's share options during the reporting period are as follows:

Name of grantee	Date of grant of the options	Exercise period	Exercise price of the options (HK$)	Closing price of Company's Shares immediately before the date of grant (HK$)	Weighted average closing price of Company's Shares immediately before the date of exercise (HK$)	Number of option outstanding as at 1 January 2021	Number of options granted during the period	Number of options exercised during the period	Number of options cancelled during the period	Number of options lapsed in accordance with the terms of the options or the Scheme during the period	Number of options outstanding as at 31 December 2021	Approximate shareholding percentage of the underlying Shares for the options in the share capital of the Company
Huang Dongliang (Independent non-executive Director)	16/6/2014	16/6/2015 to 15/6/2024	2.90	2.89	–	90,000	–	–	–	–	90,000	0.01%
	16/6/2014	16/6/2015 to 15/6/2024	2.90	2.89	–	35,320,500	–	–	–	(616,500)	34,704,000	3.09%
						35,410,500	–	–	–	(616,500)	34,794,000	3.09%

On 18 May 2018, the Company by ordinary resolution approved the adoption of a new share option scheme with terms in line with the provisions of Chapter 17 of the Listing Rules. No options have yet been granted under such new share option scheme.

Independent Non-Executive Directors

Mr. Huang Dongliang has signed a letter of appointment with the Company for an initial period of three years commencing 11 June 2007 and will continue thereafter until terminated by either party giving not less than three months' prior written notice to the other. The letters of appointment with the Company and independent non-executive Directors expired on 10 June 2010. Thereafter, the terms of the independent non-executive Directors have been renewed for a further term of one year in each year. Mr. Zhang Yong (appointed on 8 August 2018) has signed the letter of appointment with the Company for an initial period of three years commencing 8 August 2018. Mr. Wu Feng (appointed on 6 June 2015 and resigned on 30 June 2021) has signed the letter of appointment with the Company for an initial period of one year commencing 6 June 2015. Mr. Xia Yongyao (appointed on 30 June 2021 and resigned on 15 March 2022) has signed the letter of appointment with the Company for an initial period of one year commencing 30 June 2021. Mr. Xiao Gang (appointed on 15 March 2022) has signed the letter of appointment with the Company for an initial period of one year commencing 15 March 2022. The Company has received, from each of the independent non-executive Directors, an annual confirmation of his independence pursuant to Rule 3.13 of the Listing Rules. The Company considers all of the independent non-executive Directors are independent.

Emolument Policy

The Group's emolument policies are as follows:

(i) the amount of remuneration is determined on a case by case basis depending on the Directors or employee's relevant experience, responsibility, workload and the time devoted to the Group;

(ii) non-cash benefits may be provided at the discretion of the Board to the relevant Directors or employees under their remuneration package; and

(iii) the Directors or employees who are eligible participants under the share option scheme may be granted, at the discretion of the Board, options of the share option scheme adopted by the Company, as part of their remuneration package.

Dividend Policy

The Company has adopted a dividend policy, pursuant to which the Company may distribute profit by way of (i) cash or (ii) shares as may be determined by the Board from time to time. The profit distribution policy of the Company is:

(a) Profit distribution policy of the Company shall achieve continuity, stability and sustainability;

(b) The Company targets a payout ratio with balance on distribution of profits and profits retained for business operation and future development;

(c) Profit distribution of the Company shall take into account:

    (i) the earnings per share of the Company;

    (ii) the reasonable return in investment of the investors and the Shareholders in order to provide incentive for them to continue to support the Company in their long-term development;

    (iii) the financial conditions and business plan of the Company; and

    (iv) the market sentiment and circumstances.

Pre-Emptive Rights

There are no provisions for pre-emptive rights under the Company's articles of association or the laws of the Cayman Islands, being the jurisdiction in which the Company was incorporated, which would oblige the Company to offer new Shares on a pro rata basis to the existing Shareholders.

Major Customers and Suppliers

During the year, the aggregate sales attributable to the Group's five largest customers were less than 10.27% of the Group's turnover. The largest customer accounted for 2.55% of the Group's total turnover. During the year, the Group's five largest suppliers accounted for 11.94% of the Group's total purchase and the largest supplier accounted for 3.15% of the Group's total purchase. At no time during the year did a Director, an associate of a Director or a Shareholder of the Company (which to the knowledge of the Directors owns more than 5% of the Company's share capital) have an interest in any of the Group's five largest suppliers or customers.

Corporate Governance

Details of the Company's corporate governance practices are set out in the "Corporate Governance Report" section of this annual report.

Environmental Protection

Details of the Company's environmental policy and performance are published in the separate Environmental, Social and Governance Report which will be available at the Company's website and the website of the Stock Exchange not later than 3 months after the publication of this annual report.

Audit Committee

The Audit Committee was established in accordance with the requirements of the Listing Rules for the purposes of reviewing and providing supervision over the Group's financial reporting process and internal controls. The Audit Committee currently comprises three independent non-executive Directors, namely, Mr. Huang Dongliang (chairman), Mr. Zhang Yong and Mr. Xiao Gang.

The Audit Committee meets regularly with the Company's senior management and the Company's auditors to consider the Company's financial reporting process, the effectiveness of internal controls, the audit process and risk management.

The Audit Committee has reviewed the annual results of the Group for the year ended 31 December 2021.

Donations

During the year ended 31 December 2021, the Group made charitable donations of approximately RMB3.5677 million (2020: RMB11.6746 million).

Sufficiency of Public Float

From information publicly available to the Company and within the knowledge of the Directors as at the latest practicable date prior to the issue of this annual report, at least 25% of the Company's total issued share capital is held by the public throughout the year ended 31 December 2021 as required under the Listing Rules.

Auditor

A resolution will be submitted to the AGM to re-appoint ZHONGHUI ANDA as the auditor of the Company.

On behalf of the Board

Zhang Aogen
Director

Hong Kong, 30 March 2022

INDEPENDENT AUDITOR'S REPORT

ZHONGHUI

TO THE SHAREHOLDERS OF TIANNENG POWER INTERNATIONAL LIMITED
天能動力國際有限公司
(incorporated in the Cayman Islands with limited liability)

Opinion

We have audited the consolidated financial statements of Tianneng Power International Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 72 to 134, which comprise the consolidated statement of financial position as at 31 December 2021, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2021, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

Basis for Opinion

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

1. Provision

Refer to Note 36 to the consolidated financial statements

The Group tested the estimation for provision. This estimation is significant to our audit because the balance of provision of RMB720,292,000 as at 31 December 2021 is material to the consolidated financial statements. In addition, the Group's estimation involves application of judgement and is based on assumptions and estimates.

Our audit procedures included, among others:

– Understanding and assessing reasonableness of the methodology adopted by management by comparing with the historical estimates against actual warranty claims, our knowledge in the Group and the industry practices;

– Challenging the key assumptions on the estimated replacement cost and repair cost for returned products and predicted future warranty claim rate made by management; and

– Checking mathematic accuracy of calculation provided by management.

We consider that the Group's estimation for provision is supported by the available evidence.

2. Inventories

Refer to Note 24 to the consolidated financial statements

The Group tested the amount of inventory for impairment. This impairment test is significant to our audit because the balance of inventory of RMB4,484,624,000 as at 31 December 2021 is material to the consolidated financial statements. In addition, the Group's impairment test involves application of judgement and is based on estimates.

Our audit procedures included, among others:

– Assessing the Group's procedures on ordering and holding of inventory;

– Evaluating the Group's impairment assessment;

– Assessing the marketability of the inventory;

– Assessing the ageing of the inventory;

– Assessing the net realisable values of the inventory; and

– Checking subsequent sales and usage of the inventory.

We consider that the Group's impairment test for inventory is supported by the available evidence.

Other Information

The directors are responsible for the other information. The other information comprises all the information in the Company's annual report, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Directors for the Consolidated Financial Statements

The directors are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the HKICPA's website at:
http://www.hkicpa.org.hk/en/standards-and-regulations/standards/auditing-assurance/auditre/
This description forms part of our auditor's report.

ZHONGHUI ANDA CPA Limited
Certified Public Accountants
Sze Lin Tang
Audit Engagement Director
Practising Certificate Number P03614
Hong Kong, 30 March 2022

CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
Revenue	7	**85,615,917**	53,525,039
Cost of sales		**(80,994,895)**	(48,032,934)
Gross profit		**4,621,022**	5,492,105
Interest revenue		**218,204**	137,930
Other income	9	**876,103**	530,491
Other gains and losses	10	**46,401**	36,408
Impairment losses, net of reversal	11	**(113,459)**	(9,348)
Selling and distribution costs		**(1,037,235)**	(937,657)
Administrative expenses		**(989,376)**	(791,154)
Research and development costs		**(1,483,162)**	(1,270,497)
Other expenses		**(44,732)**	(25,643)
Share of loss of associates		**(2,735)**	(776)
Finance costs	12	**(254,089)**	(212,131)
Profit before taxation		**1,836,942**	2,949,728
Taxation	13	**(285,730)**	(445,153)
Profit for the year	14	**1,551,212**	2,504,575
Other comprehensive (expense)/income:			
Items that will not be reclassified to profit or loss:			
Fair value changes of equity investment at fair value through other comprehensive income		**(104,611)**	21,513
		(104,611)	21,513
Items that may be reclassified to profit or loss:			
Fair value change of debt instruments measured at fair value through other comprehensive income		**8,647**	(10,414)
Income tax relating to items that may be reclassified subsequently		**(2,153)**	2,456
		6,494	(7,958)
Total comprehensive income for the year		**1,453,095**	2,518,130
Profit for the year attributable to:			
Owners of the Company		**1,299,952**	2,476,921
Non-controlling interests		**251,260**	27,654
		1,551,212	2,504,575
Total comprehensive income for the year attributable to:			
Owners of the Company		**1,201,835**	2,490,476
Non-controlling interests		**251,260**	27,654
		1,453,095	2,518,130
Earnings per share	17		
– Basic (RMB)		**1.15**	2.20
– Diluted (RMB)		**1.13**	2.15

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
Non-current assets			
Property, plant and equipment	18	**6,504,488**	5,455,025
Goodwill	20	**23,305**	23,305
Right-of-use assets	19	**1,099,183**	793,956
Interest in associates	21	**36,115**	20,670
Equity investments at fair value through other comprehensive income	22	**267,489**	327,101
Deferred tax assets	23	**688,263**	459,597
Deposit paid for acquisition of property, plant and equipments		**743,273**	244,377
Loan receivables	27	**284,928**	188,808
Long-term receivables		**5,136**	13,098
		9,652,180	7,525,937
Current assets			
Inventories	24	**4,484,624**	4,485,900
Properties for sale under development	25	**768,189**	389,696
Trade and other receivables	26	**3,328,917**	2,349,281
Loan receivables	27	**203,954**	34,825
Amounts due from related parties	33	**3,479**	13,475
Amounts due from an associate	21	**70,000**	–
Debt instruments at fair value through other comprehensive income	28	**987,055**	2,069,365
Financial assets at fair value through profit or loss	30	**1,600,095**	572,591
Pledged bank deposit	31	**2,943,087**	1,303,060
Bank balances and cash	31	**8,697,364**	4,456,305
		23,086,764	15,674,498
Current liabilities			
Bills, trade and other payables	32	**8,923,504**	7,356,002
Amounts due to related parties	33	**239,970**	142,308
Derivative financial instruments	30	**263**	–
Taxation payables		**348,748**	403,788
Borrowings – current portion	34	**2,874,839**	919,123
Deferred government grants	35	**42,026**	38,699
Lease liabilities	38	**8,727**	8,689
Provision	36	**720,292**	622,309
Contract liabilities	37	**2,129,216**	2,941,370
		15,287,585	12,432,288
Net current assets		**7,799,179**	3,242,210
TOTAL ASSETS LESS CURRENT LIABILITIES		**17,451,359**	10,768,147
Non-current liabilities			
Borrowings – non-current portion	34	**1,408,682**	718,917
Deferred government grants	35	**591,701**	509,833
Lease liabilities	38	**13,637**	16,274
Deferred tax liabilities	23	**60,407**	63,834
		2,074,427	1,308,858
NET ASSETS		**15,376,932**	9,459,289

At 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
Capital and reserves			
Share capital	39	**109,850**	109,850
Reserves	40	**12,870,646**	8,636,310
Equity attributable to owners of the Company		**12,980,496**	8,746,160
Non-controlling interests		**2,396,436**	713,129
TOTAL EQUITY		**15,376,932**	9,459,289

The consolidated financial statements on pages 72 to 134 were approved and authorised for issue by the board of directors on 30 March 2022 and are signed on its behalf by:

ZHANG Tianren
Director

ZHANG Aogen
Director

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2021

	Attributable to owners of the Company												
	Share capital RMB'000	Share premium RMB'000	Special reserves RMB'000 (Note 40)	Capital reserves RMB'000 (Note 40)	Share options reserve RMB'000	Investment revaluation reserve RMB'000	Other fair value through other comprehensive income reserve RMB'000	Statutory surplus reserves fund RMB'000 (Note 40)	Discretionary surplus reserve fund RMB'000 (Note 40)	Accumulated profits RMB'000	Sub-total RMB'000	Non-controlling interests RMB'000	Total RMB'000
At 1 January 2020	109,905	783,403	10,000	251,558	39,893	(133,620)	(4,223)	885,700	143,212	4,578,776	6,664,604	621,912	7,286,516
Profit for the year	–	–	–	–	–	–	–	–	–	2,476,921	2,476,921	27,654	2,504,575
Other comprehensive income for the year	–	–	–	–	–	21,513	(7,958)	–	–	–	13,555	–	13,555
Total comprehensive income for the year	–	–	–	–	–	21,513	(7,958)	–	–	2,476,921	2,490,476	27,654	2,518,130
Transfer	–	–	–	–	–	–	–	127,220	–	(127,220)	–	–	–
Acquisition of subsidiaries	–	–	–	–	–	–	–	–	–	–	–	37,553	37,553
Capital injection from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	70,738	70,738
Payment of dividends	–	–	–	–	–	–	–	–	–	(404,261)	(404,261)	–	(404,261)
Dividend paid to non-controlling interests	–	–	–	–	–	–	–	–	–	–	–	(57,580)	(57,580)
Share repurchase	(55)	(4,836)	–	–	–	–	–	–	–	–	(4,891)	–	(4,891)
Forfeiture of share options	–	–	–	–	(2,909)	–	–	–	–	2,909	–	–	–
Recognition of equity-settled share-based payment (note 41)	–	–	–	–	–	–	–	–	–	–	–	13,084	13,084
Forfeiture of equity-settled share-based payment	–	–	–	–	–	–	–	–	–	232	232	(232)	–
At 31 December 2020	109,850	778,567	10,000	251,558	36,984	(112,107)	(12,181)	1,012,920	143,212	6,527,357	8,746,160	713,129	9,459,289
At 1 January 2021	109,850	778,567	10,000	251,558	36,984	(112,107)	(12,181)	1,012,920	143,212	6,527,357	8,746,160	713,129	9,459,289
Profit for the year	–	–	–	–	–	–	–	–	–	1,299,952	1,299,952	251,260	1,551,212
Other comprehensive income for the year	–	–	–	–	–	(104,611)	6,494	–	–	–	(98,117)	–	(98,117)
Total comprehensive income for the year	–	–	–	–	–	(104,611)	6,494	–	–	1,299,952	1,201,835	251,260	1,453,095
Transfer	–	–	–	–	–	–	–	110,011	–	(110,011)	–	–	–
Capital injection from non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	180,349	180,349
Equity transaction	–	–	–	3,407,043	–	–	–	–	–	–	3,407,043	1,322,690	4,729,733
Payment of dividends	–	–	–	–	–	–	–	–	–	(374,810)	(374,810)	–	(374,810)
Dividend paid to non-controlling interests	–	–	–	–	–	–	–	–	–	–	–	(84,040)	(84,040)
Forfeiture of share options	–	–	–	–	(1,629)	–	–	–	–	1,629	–	–	–
Recognition of equity-settled share-based payment (note 41)	–	–	–	–	–	–	–	–	–	–	–	13,316	13,316
Forfeiture of equity-settled share-based payment	–	–	–	–	–	–	–	–	–	268	268	(268)	–
At 31 December 2021	109,850	778,567	10,000	3,658,601	35,355	(216,718)	(5,687)	1,122,931	143,212	7,344,385	12,980,496	2,396,436	15,376,932

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2021

	2021 RMB'000	2020 RMB'000
Cash flows from operating activities		
Profit before taxation	**1,836,942**	2,949,728
Adjustments for:		
Interest revenue	**(218,204)**	(137,930)
Gains on structured bank deposits	**(73,274)**	(54,214)
Amortisation of government grants	**(46,123)**	(39,760)
Dividend income	**(10,881)**	(10,007)
Finance costs	**254,089**	212,131
Share of loss of associates	**2,735**	776
Depreciation of property, plant and equipments	**572,622**	510,228
Depreciation of right-of-use assets	**29,954**	19,011
Write-off/loss of property, plant and equipments	**45,985**	51,234
Recognition of allowance for bad and doubtful debts, net of reversal	**112,126**	8,224
Recognition of allowance for inventories	**12,888**	4,831
Recognition of allowance for loan receivables	**1,333**	1,124
Share-based payments	**13,316**	13,084
Fair value changes of held-for-trading investments	**14,074**	(32,664)
Fair value changes of derivative financial instruments	**(21,352)**	26,300
Operating cash flows before movements in working capital	**2,526,230**	3,522,096
Increase in inventories	**(11,612)**	(743,768)
Increase in properties for sale under development	**(378,493)**	(389,696)
Increase in trade and other receivables	**(1,056,762)**	(792,152)
(Decrease)/increase in debt instruments at fair value through other comprehensive income	**1,088,804**	(872,209)
Increase in bills, trade and other payables	**1,369,089**	572,371
(Decrease)/increase in contract liabilities	**(812,154)**	1,192,059
Increase in provision	**97,983**	(28,419)
Increase in amount due to related parties	**97,662**	121,339
Decrease in amount due from related parties	**9,996**	(9,766)
Cash generated from operations	**2,930,743**	2,571,855
Interest paid	**(250,558)**	(202,941)
Income tax paid	**(572,862)**	(267,134)
Net cash generated from operating activities	**2,107,323**	2,101,780
Cash flows from investing activities		
Interest received	**182,552**	119,483
Dividend income from equity investments at fair value through other comprehensive income	**10,881**	10,007
Investment in associates	**(18,180)**	(20,000)
Proceeds on disposal of property, plant and equipments	**65,120**	31,546
Purchase of property, plant and equipments	**(1,529,605)**	(957,470)
Purchases of financial assets at FVTPL	**(6,800)**	(5,672)
Purchases of equity instruments at FVTOCI	**(45,000)**	(21,210)
Payments for derivative financial instruments	**(1,069,437)**	(800,613)
Proceeds from derivative financial instruments	**1,094,174**	772,556
Increase of pledged bank deposit	**(1,640,027)**	(11,734)
(Increase)/decrease in structured bank deposit	**(964,626)**	375,714
Asset-related government grants received	**131,318**	123,760
Deposit for acquisition of property, plant and equipments	**(498,896)**	(185,191)
Acquisition of right-of-use assets	**(327,269)**	(161,079)
Advance to independent third parties for loan receivables	**(437,579)**	(381,436)
Receipt of repayment for loan receivables	**175,012**	174,131
Net cash outflow relating to acquisition of subsidiaries accounted for as assets acquisition	**–**	(73,490)
Net cash outflow relating to acquisition of subsidiaries	**–**	(88,421)
Net cash used in investing activities	**4,878,362**	(1,099,119)

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2021

	2021 RMB'000	2020 RMB'000
Cash flows from financing activities		
New bank borrowings raised	**8,174,885**	5,502,683
Repayments of borrowings	**(5,532,176)**	(5,397,489)
Repayments of loan notes	**–**	(400,000)
Advance to an associate	**(70,000)**	–
Dividend paid	**(374,810)**	(404,261)
Dividend paid to non-controlling interests	**(84,040)**	(57,580)
Capital contribution from a non-controlling shareholders	**180,349**	70,738
Equity transaction	**4,729,733**	–
Share repurchase	**–**	(4,891)
Repayment of lease liabilities	**(11,843)**	(9,747)
Net cash generated from/(used in) financing activities	**7,012,098**	(700,547)
Net increase in cash and cash equivalents	**4,241,059**	302,114
Cash and cash equivalents at the beginning of the year	**4,456,305**	4,154,191
Cash and cash equivalents at the end of the year	**8,697,364**	4,456,305
Analysis of cash and cash equivalents		
Bank and cash balances	**8,697,364**	4,456,305

1. General Information

Tianneng Power International Limited (the "Company") was incorporated and registered as an exempted company with limited liability in the Cayman Islands under the Companies Law of the Cayman Islands on 16 November 2004 and its shares are listed on The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange") with effect from 11 June 2007. The addresses of the registered office and principal place of business of the Company are disclosed in the "Corporation Information" section of the annual report.

The Company is an investment holding company. The principal activities of its subsidiaries are set out in note 49 to the consolidated financial statements. The Company and its subsidiaries are collectively referred to as the "Group".

The consolidated financial statements are presented in Renminbi ("RMB") which is also the functional currency of the Company.

2. Adoption of New and Revised Hong Kong Financial Reporting Standards

In the current year, the Group has adopted all the new and revised Hong Kong Financial Reporting Standards (the "HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants (the "HKICPA") that are relevant to its operations and effective for its accounting year beginning on 1 January 2021. HKFRSs comprise Hong Kong Financial Reporting Standards (the "HKFRS"); Hong Kong Accounting Standards (the "HKAS"); and Interpretations. The adoption of these new and revised HKFRSs did not result in significant changes to the Group's accounting policies, presentation of the Group's financial statements and amounts reported for the current year and prior years.

The Group has not applied the new HKFRSs that have been issued but are not yet effective. The application of these new HKFRSs will not have material impact on the financial statements of the Group.

3. Significant Accounting Policies

These consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA, and the applicable disclosures required by the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited and by the Hong Kong Companies Ordinance.

These consolidated financial statements have been prepared under the historical cost convention, as modified by the equity investments at fair value through other comprehensive income, debt instruments at fair value through other comprehensive income, financial assets at fair value through profit or loss and derivative financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

The preparation of consolidated financial statements in conformity with HKFRSs requires the use of certain key assumptions and estimates. It also requires the directors to exercise its judgements in the process of applying the accounting policies. The areas involving critical judgements and areas where assumptions and estimates are significant to these consolidated financial statements, are disclosed in note 4 to the consolidated financial statements.

The significant accounting policies applied in the preparation of these consolidated financial statements are set out below.

3. Significant Accounting Policies (Continued)

Consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries made up to 31 December. Subsidiaries are entities over which the Group has control. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The Group has power over an entity when the Group has existing rights that give it the current ability to direct the relevant activities, i.e. activities that significantly affect the entity's returns.

When assessing control, the Group considers its potential voting rights as well as potential voting rights held by other parties, to determine whether it has control. A potential voting right is considered only if the holder has the practical ability to exercise that right.

Subsidiaries are consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date the control ceases.

The gain or loss on the disposal of a subsidiary that results in a loss of control represents the difference between (i) the fair value of the consideration of the sale plus the fair value of any investment retained in that subsidiary and (ii) the Company's share of the net assets of that subsidiary plus any remaining goodwill relating to that subsidiary and any related accumulated translation reserve.

Intragroup transactions, balances and unrealised profits are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests represent the equity in subsidiaries not attributable, directly or indirectly, to the Company. Non-controlling interests are presented in the consolidated statement of financial position and consolidated statement of changes in equity within equity. Non-controlling interests are presented in the consolidated statement of profit or loss and other comprehensive income as an allocation of profit or loss and total comprehensive income for the year between the non-controlling shareholders and owners of the Company.

Profit or loss and each component of other comprehensive income are attributed to the owners of the Company and to the non-controlling shareholders even if this results in the non-controlling interests having a deficit balance.

Changes in the Company's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions (i.e. transactions with owners in their capacity as owners). The carrying amounts of the controlling and non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to the owners of the Company.

Business combination and goodwill

The acquisition method is used to account for the acquisition of a subsidiary in a business combination. The cost of acquisition is measured at the acquisition-date fair value of the assets given, equity instruments issued, liabilities incurred and contingent consideration. Acquisition-related costs are recognised as expenses in the periods in which the costs are incurred and the services are received. Identifiable assets and liabilities of the subsidiary in the acquisition are measured at their acquisition-date fair values.

3. Significant Accounting Policies (Continued)

Business combination and goodwill (Continued)

The excess of the cost of acquisition over the Company's share of the net fair value of the subsidiary's identifiable assets and liabilities is recorded as goodwill. Any excess of the Company's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition is recognised in consolidated profit or loss as a gain on bargain purchase which is attributed to the Company.

In a business combination achieved in stages, the previously held equity interest in the subsidiary is remeasured at its acquisition-date fair value and the resulting gain or loss is recognised in consolidated profit or loss. The fair value is added to the cost of acquisition to calculate the goodwill.

If the changes in the value of the previously held equity interest in the subsidiary were recognised in other comprehensive income (for example, equity investments ar fair value through other comprehensive income), the amount that was recognised in other comprehensive income is recognised on the same basis as would be required if the previously held equity interest were disposed of.

Goodwill is tested annually for impairment or more frequently if events or changes in circumstances indicate that it might be impaired. Goodwill is measured at cost less accumulated impairment losses. The method of measuring impairment losses of goodwill is the same as that of other assets as stated in the accounting policy below. Impairment losses of goodwill are recognised in consolidated profit or loss and are not subsequently reversed. Goodwill is allocated to cash-generating units that are expected to benefit from the synergies of the acquisition for the purpose of impairment testing.

The non-controlling interests in the subsidiary are initially measured at the non-controlling shareholders' proportionate share of the net fair value of the subsidiary's identifiable assets and liabilities at the acquisition date.

Associates

Associates are entities over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of an entity but is not control or joint control over those policies. The existence and effect of potential voting rights that are currently exercisable or convertible, including potential voting rights held by other entities, are considered when assessing whether the Group has significant influence. In assessing whether a potential voting right contributes to significant influence, the holder's intention and financial ability to exercise or convert that right is not considered.

Investment in an associate is accounted for in the consolidated financial statements by the equity method and is initially recognised at cost. Identifiable assets and liabilities of the associate in an acquisition are measured at their fair values at the acquisition date. The excess of the cost of acquisition over the Group's share of the net fair value of the associate's identifiable assets and liabilities is recorded as goodwill. The goodwill is included in the carrying amount of the investment and is tested for impairment together with the investment at the end of each reporting period when there is objective evidence that the investment is impaired. Any excess of the Group 's share of the net fair value of the identifiable assets and liabilities over the cost of acquisition is recognised in consolidated profit or loss.

The Group's share of an associate's post-acquisition profits or losses is recognised in consolidated profit or loss, and its share of the post-acquisition movements in reserves is recognised in the consolidated reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate. If the associate subsequently reports profits, the Group resumes recognising its share of those profits only after its share of the profits equals the share of losses not recognised.

3. Significant Accounting Policies (Continued)

Associates (Continued)

The gain or loss on the disposal of an associate that results in a loss of significant influence represents the difference between (i) the fair value of the consideration of the sale plus the fair value of any investment retained in that associate and (ii) the Group's share of the net assets of that associate plus any remaining goodwill relating to that associate and any related accumulated translation reserve. If an investment in an associate becomes an investment in a joint venture, the Group continues to apply the equity method and does not remeasure the retained interest.

Unrealised profits on transactions between the Group and its associates are eliminated to the extent of the Group's interests in the associates. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the "functional currency"). The consolidated financial statements are presented in RMB, which is the Company's presentation currency and functional currency.

(b) Transactions and balances in each entity's financial statements

Transactions in foreign currencies are translated into the functional currency on initial recognition using the exchange rates prevailing on the transaction dates. Monetary assets and liabilities in foreign currencies are translated at the exchange rates at the end of each reporting period. Gains and losses resulting from this translation policy are recognised in profit or loss.

Non-monetary items that are measured at fair values in foreign currencies are translated using the exchange rates at the dates when the fair values are determined.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. When a gain or loss on a non-monetary item is recognised in profit or loss, any exchange component of that gain or loss is recognised in profit or loss.

(c) Translation on consolidation

The results and financial position of all the group entities that have a functional currency different from the Company's presentation currency are translated into the Company's presentation currency as follows:

– Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;

– Income and expenses are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the exchange rates on the transaction dates); and

– All resulting exchange differences are recognised in the translation reserve.

3. Significant Accounting Policies (Continued)

Foreign currency translation (Continued)

(c) Translation on consolidation (Continued)

On consolidation, exchange differences arising from the translation of the net investment in foreign entities and of borrowings are recognised in the translation reserve. When a foreign operation is sold, such exchange differences are recognised in consolidated profit or loss as part of the gain or loss on disposal.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

Property, plant and equipment

Buildings comprise mainly factories and offices. Property, plant and equipment are stated at cost less accumulated depreciation and impairment loss.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are recognised in profit or loss during the period in which they are incurred.

Depreciation of property, plant and equipment is calculated at rates sufficient to write off their costs less their residual values over the estimated useful lives or annual rate on a straight-line basis. The principal annual rates are as follows:

Buildings	4.8%
Plant and machinery	9.5%
Motor vehicles	19%
Furniture, fixtures and equipment	9.5%-19%

The residual values, useful lives and depreciation method are reviewed and adjusted, if appropriate, at the end of each reporting period.

Construction in progress represents buildings under construction and plant and machinery pending installation, and is stated at cost less impairment losses. Depreciation begins when the relevant assets are available for use.

The gain or loss on disposal of property, plant and equipment is the difference between the net sales proceeds and the carrying amount of the relevant asset, and is recognised in profit or loss.

Leases

The Group as lessee

Leases are recognised as right-of-use assets and corresponding lease liabilities when the leased assets are available for use by the Group. Right-of-use assets are stated at cost less accumulated depreciation and impairment losses. Depreciation of right-of-use assets is calculated at rates to write off their cost over the shorter of the asset's useful life and the lease term on a straight-line basis. The principal annual rates are as follows:

Land and buildings	1.52% – 6.06%
Land use rights	1.43% – 2.08%

3. Significant Accounting Policies (Continued)

Leases (Continued)

The Group as lessee (Continued)

Right-of-use assets are measured at cost comprising the amount of the initial measurement of the lease liabilities, lease payments prepaid, initial direct costs and the restoration costs. Lease liabilities include the net present value of the lease payments discounted using the interest rate implicit in the lease if that rate can be determined, or otherwise the Group's incremental borrowing rate. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the lease liability.

Payments associated with short-term leases and leases of low-value assets are recognised as expenses in profit or loss on a straight-line basis over the lease terms. Short-term leases are leases with an initial lease term of 12 months or less. Low-value assets are assets of value below US$5,000.

Research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development activities (or from the development phase of an internal project) is recognised if, and only if, all of the following have been demonstrated:

– the technical feasibility of completing the intangible asset so that it will be available for use or sale;

– the intention to complete the intangible asset and use or sell it;

– the ability to use or sell the intangible asset;

– how the intangible asset will generate probable future economic benefits;

– the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and

– the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible asset is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is charged to profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible asset is measured at cost less accumulated amortisation and accumulated impairment losses (if any), on the same basis as intangible assets acquired separately.

Properties for sale under development

Properties for sale under development are stated at the lower of cost and net realisable value. Costs include acquisition costs, prepaid land lease payments, construction costs, borrowing costs capitalised and other direct costs attributable to such properties. Net realisable value is determined by reference to sale proceeds received after the reporting period less selling expenses, or by estimates based on prevailing market condition. On completion, the properties are reclassified to properties held for sale at the then carrying amount.

3. Significant Accounting Policies (Continued)

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the weighted average basis. The cost of finished goods and work in progress comprises raw materials, direct labour and an appropriate proportion of all production overhead expenditure, and where appropriate, subcontracting charges. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

Recognition and derecognition of financial instruments

Financial assets and financial liabilities are recognised in the statement of financial position when the Group becomes a party to the contractual provisions of the instruments.

Financial assets are derecognised when the contractual rights to receive cash flows from the assets expire; the Group transfers substantially all the risks and rewards of ownership of the assets; or the Group neither transfers nor retains substantially all the risks and rewards of ownership of the assets but has not retained control on the assets. On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received is recognised in profit or loss.

Financial liabilities are derecognised when the obligation specified in the relevant contract is discharged, cancelled or expires. The difference between the carrying amount of the financial liability derecognised and the consideration paid is recognised in profit or loss.

Financial assets

Financial assets are recognised and derecognised on a trade date basis where the purchase or sale of an asset is under a contract whose terms require delivery of the asset within the timeframe established by the market concerned, and are initially recognised at fair value, plus directly attributable transaction costs except in the case of financial assets at fair value through profit or loss (the "Financial assets at FVTPL). Transaction costs directly attributable to the acquisition of investments at fair value through profit or loss are recognised immediately in profit or loss.

Financial assets of the Group are classified under the following categories:

– Financial assets at amortised cost;

– Debt instruments at fair value through other comprehensive income (the "Debt instruments at FVTOCI");

– Equity investments at fair value through other comprehensive income (the "Equity investments at FVTOCI"); and

– Financial assets at FVTPL.

3. Significant Accounting Policies (Continued)

Financial assets (Continued)

(i) Financial assets at amortised cost

Financial assets (including trade and other receivables) are classified under this category if they satisfy both of the following conditions:

– the assets are held within a business model whose objective is to hold assets in order to collect contractual cash flows; and

– the contractual terms of the assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

They are subsequently measured at amortised cost using the effective interest method less loss allowance for expected credit losses.

(ii) Debt instruments at FVTOCI

Debt instruments are classified under this category if they satisfy both of the following conditions:

– the assets are held within a business model whose objective is achieved by both collecting contractual cash flows and selling assets; and

– the contractual terms of the assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

They are subsequently measured at fair value. Interest income calculated using the effective interest method is recognised in profit or loss.

The assets are treated as monetary items. A foreign currency asset is treated as an asset measured at amortised cost in the foreign currency. Exchange differences on the amortised cost are recognised in profit or loss.

Other gains or losses are recognised in other comprehensive income and accumulated in the debt investment revaluation reserve. On derecognition of an investment, the cumulative gains or losses previously accumulated in the debt investment revaluation reserve are reclassified to profit or loss.

The loss allowance for expected credit losses is recognised in other comprehensive income and does not reduce the carrying amount of the assets.

3. Significant Accounting Policies (Continued)

Financial assets (Continued)

(iii) Equity investments at FVTOCI

On initial recognition, the Group can make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity investments that are not held for trading as at fair value through other comprehensive income.

Equity investments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair values recognised in other comprehensive income and accumulated in the investment revaluation reserve. On derecognition of an investment, the cumulative gains or losses previously accumulated in the investment revaluation reserve are not reclassified to profit or loss.

Dividends on these investments are recognised in profit or loss, unless the dividends clearly represent a recovery of part of the cost of the investment.

(iv) Financial assets at FVTPL

Financial assets are classified under this category if they do not meet the conditions to be measured at amortised cost and the conditions of debt instruments at FVTOCI unless the Group designates an equity investment that is not held for trading as at fair value through other comprehensive income on initial recognition.

Financial assets at FVTPL are subsequently measured at fair value with any gains or losses arising from changes in fair values recognised in profit or loss. The fair value gains or losses recognised in profit or loss are net of any interest income and dividend income. Interest income and dividend income are recognised in profit or loss.

Loss allowances for expected credit losses

The Group recognises loss allowances for expected credit losses on financial assets at amortised cost and debt instruments at FVTOCI. Expected credit losses are the weighted average of credit losses with the respective risks of a default occurring as the weights.

At the end of each reporting period, the Group measures the loss allowance for a financial instrument at an amount equal to the expected credit losses that result from all possible default events over the expected life of that financial instrument ("lifetime expected credit losses") for trade receivables, or if the credit risk on that financial instrument has increased significantly since initial recognition.

If, at the end of the reporting period, the credit risk on a financial instrument (other than trade receivables) has not increased significantly since initial recognition, the Group measures the loss allowance for that financial instrument at an amount equal to the portion of lifetime expected credit losses that represents the expected credit losses that result from default events on that financial instrument that are possible within 12 months after the reporting period.

The amount of expected credit losses or reversal to adjust the loss allowance at the end of the reporting period to the required amount is recognised in profit or loss as an impairment gain or loss.

Cash and cash equivalents

For the purpose of the statement of cash flows, cash and cash equivalents represent cash at bank and on hand, demand deposits with banks and other financial institutions, and short-term highly liquid investments which are readily convertible into known amounts of cash and subject to an insignificant risk of change in value. Bank overdrafts which are repayable on demand and form an integral part of the Group's cash management are also included as a component of cash and cash equivalents.

3. Significant Accounting Policies (Continued)

Financial liabilities and equity instruments

Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument under HKFRSs. An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. The accounting policies adopted for specific financial liabilities and equity instruments are set out below.

Borrowings and long-term loan note

Borrowings and long-term loan note are initially recognised at fair value, net of transaction costs incurred, and subsequently measured at amortised cost using the effective interest method.

Borrowings and long-term loan note are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

Trade and other payables

Trade and other payables are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method unless the effect of discounting would be immaterial, in which case they are stated at cost.

Derivative financial instruments

Derivatives (including contingent considerations under business combinations) are initially recognised and subsequently measured at fair value with any gains or losses arising from changes in fair values recognised in profit or loss.

Equity instruments

Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

Revenue from contracts with customers

Revenue is measured based on the consideration specified in a contract with a customer with reference to the customary business practices and excludes amounts collected on behalf of third parties. For a contract where the period between the payment by the customer and the transfer of the promised product or service exceeds one year, the consideration is adjusted for the effect of a significant financing component.

The Group recognises revenue when it satisfies a performance obligation by transferring control over a product or service to a customer. Depending on the terms of a contract and the laws that apply to that contract, a performance obligation can be satisfied over time or at a point in time. A performance obligation is satisfied over time if:

– the customer simultaneously receives and consumes the benefits provided by the Group's performance;

– the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced; or

– the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

If a performance obligation is satisfied over time, revenue is recognised by reference to the progress towards complete satisfaction of that performance obligation. Otherwise, revenue is recognised at a point in time when the customer obtains control of the product or service.

3. Significant Accounting Policies (Continued)

Other revenue

Interest income is recognised using the effective interest method.

Dividend income is recognised when the shareholders' rights to receive payment are established.

Employee benefits

(a) Employee leave entitlements

Employee entitlements to annual leave and long service leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave and long service leave as a result of services rendered by employees up to the at the end of the reporting period.

Employee entitlements to sick leave and maternity leave are not recognised until the time of leave.

(b) Pension obligations

The Group contributes to defined contribution retirement schemes which are available to all employees. Contributions to the schemes by the Group and employees are calculated as a percentage of employees' basic salaries. The retirement benefit scheme cost charged in profit or loss represents contributions payable by the Group to the funds.

(c) Termination benefits

Termination benefits are recognised at the earlier of the dates when the Group can no longer withdraw the offer of those benefits and when the Group recognises restructuring costs and involves the payment of termination benefits.

Share-based payments

The Group issues equity-settled share-based payments to certain directors and employees.

Equity-settled share-based payments to directors and employees are measured at the fair value (excluding the effect of non market-based vesting conditions) of the equity instruments at the date of grant. The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of shares that will eventually vest and adjusted for the effect of non market-based vesting conditions.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

To the extent that funds are borrowed generally and used for the purpose of obtaining a qualifying asset, the amount of borrowing costs eligible for capitalisation is determined by applying a capitalisation rate to the expenditures on that asset. The capitalisation rate is the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

3. Significant Accounting Policies (Continued)

Government grants

A government grant is recognised when there is reasonable assurance that the Group will comply with the conditions attaching to it and that the grant will be received.

Government grants relating to income are deferred and recognised in profit or loss over the period to match them with the costs they are intended to compensate.

Government grants that become receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

Government grants relating to the purchase of assets are recorded as deferred income and recognised in profit or loss on a straight-line basis over the useful lives of the related assets.

Taxation

Income tax represents the sum of the current tax and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit recognised in profit or loss because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences, unused tax losses or unused tax credits can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on tax rates that have been enacted or substantively enacted by the end of the reporting period. Deferred tax is recognised in profit or loss, except when it relates to items recognised in other comprehensive income or directly in equity, in which case the deferred tax is also recognised in other comprehensive income or directly in equity.

The measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

3. Significant Accounting Policies (Continued)

Segment reporting

Operating segments and the amounts of each segment item reported in the financial statements are identified from the financial information provided regularly to the Group's most senior executive management for the purpose of allocating resources and assessing the performance of the Group's various lines of business.

Individually material operating segments are not aggregated for financial reporting purposes unless the segments have similar economic characteristics and are similar in respect of the nature of products and services, the nature of productions processes, the type or class of customers, the methods used to distribute the products or provide the services, and the nature of the regulatory environment. Operating segments which are not individually material may be aggregated if they share a majority of these criteria.

Related parties

A related party is a person or entity that is related to the Group.

(a) A person or a close member of that person's family is related to the Group if that person:

- (i) has control or joint control over the Group;
- (ii) has significant influence over the Group; or
- (iii) is a member of the key management personnel of the Company or of a parent of the Company.

(b) An entity is related to the Group (reporting entity) if any of the following conditions applies:

- (i) The entity and the Company are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
- (ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
- (iii) Both entities are joint ventures of the same third party.
- (iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
- (v) The entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group. If the Group is itself such a plan, the sponsoring employers are also related to the Group.
- (vi) The entity is controlled or jointly controlled by a person identified in (a).
- (vii) A person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).
- (viii) The entity, or any member of a group of which it is a part, provides key management personnel services to the Company or to a parent of the Company.

3. Significant Accounting Policies (Continued)

Impairment of assets

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets except goodwill, investments, investories, tax recoverable and receivables, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of any impairment loss. Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount of the asset or cash-generating unit is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset or cash-generating unit is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset or cash-generating unit in prior years. A reversal of an impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the reversal of the impairment loss is treated as a revaluation increase.

Provisions and contingent liabilities

Provisions are recognised for liabilities of uncertain timing or amount when the Group has a present legal or constructive obligation arising as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made. Where the time value of money is material, provisions are stated at the present value of the expenditures expected to settle the obligation.

Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow is remote. Possible obligations, whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events are also disclosed as contingent liabilities unless the probability of outflow is remote.

Events after the reporting period

Events after the reporting period that provide additional information about the Group's position at the end of the reporting period or those that indicate the going concern assumption is not appropriate are adjusting events and are reflected in the financial statements. Events after the reporting period that are not adjusting events are disclosed in the notes to the consolidated financial statements when material.

4. Critical Judgements and Key Estimates

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

(a) Warranty provision

The Group provides a warranty up to fifteen months on all lead-acid motive battery products. For lead-acid motive battery products found to be defective under the terms of the warranty, the Group undertakes to replace the battery free of charge for products returned within eight months from the date of sale, and to repair the battery free of charge for products returned between the ninth month and the fifteenth month after the date of sale. Estimated costs related to product warranty are accrued at the time of sale and are based upon various factors including the historical actual warranty claims, the estimated replacement cost and repair cost for returned products, predicted future warranty claim rate with reference to prior experiences and volumes of products sold. The amount of warranty is adjusted as required to reflect the actual costs incurred when information becomes available. In case where the actual future warranty expenses are less or more than expected, a material reversal or further recognition of warranty provision may arise, which would be recognised in profit or loss for the period in which such a reversal or further recognition takes place.

(b) Inventories

Inventories are stated at the lower of cost and net realisable value. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads. Net realisable value is the estimated selling price in the ordinary course of business, less all estimated costs of completion and costs necessary to make the sale.

The Group does not have a general provision policy on inventory based on aging given the nature of inventories that are not subject to frequent wear and tear and frequent technological changes. However, operational procedures have been in place to monitor this risk as majority of working capital is devoted to inventories. Procedurewise, the sales and the marketing managers review the inventory aging listing on a periodical basis to identify any aged inventories. The carrying value of the aged inventory items is then compared to the respective net realisable value in order to ascertain whether allowance is required to be made for any obsolete and slow-moving items.

In addition, physical count on all inventories are carried out on a periodical basis in order to determine whether allowance need to be made in respect of any obsolete and defective inventories identified. In this regard, the directors of the Company are satisfied that valuation risk is minimal and adequate allowance for obsolete and slow-moving inventories has been made in the consolidated financial statements. The management estimates the net realisable value for finished goods based primarily on the latest market prices and current market conditions. The net realisable value for finished goods will be affected if the actual market prices and market conditions are less than expected.

(c) Provision of expected credit losses for trade and other receivables and loan receivable

The Group uses provision matrix to calculate expected credit losses for certain trade and other receivables and loan receivable. The provision rates are based on internal credit ratings as groupings of various debtors that have similar loss patterns. The provision matrix is based on the Group's historical default rates taking into consideration forward-looking information that is reasonable and supportable available without undue costs or effort. At every reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered.

4. Critical Judgements and Key Estimates (Continued)

Key sources of estimation uncertainty (Continued)

(d) Fair value of investment

In the absence of quoted market prices in an active market, the directors estimate the fair value of the Group's Debt instruments at FVTOCI and financial assets at FVTPL, details of which are set out in note 6 to the consolidated financial statements.

(e) Property, plant and equipment and depreciation

The Group determines the estimated useful lives, residual values and related depreciation charges for the Group's property, plant and equipment. This estimate is based on the historical experience of the actual useful lives and residual values of property, plant and equipment of similar nature and functions. The Group will revise the depreciation charge where useful lives and residual values are different to those previously estimated, or it will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold.

5. Financial Risk Management

The Group's activities expose it to a variety of financial risks: foreign currency risk, price risk, interest rate risk, credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

(a) Foreign currency risk

The Group has minimal exposure to foreign currency risk as most of its business transactions, assets and liabilities are principally denominated in the functional currencies of the Group entities which is RMB. The Group currently does not have a foreign currency hedging policy in respect of foreign currency transactions, assets and liabilities. The Group will monitor its foreign currency exposure closely and will consider hedging significant foreign currency exposure should the need arise.

(b) Price risk

The Group is exposed to equity price risk through its investments in listed equity securities measured at FVTPL and FVTOCI. For equity securities measured at FVTPL quoted in the Stock Exchange, the management manages this exposure by maintaining a portfolio of investments with different risks. In addition, the Group also invested in certain quoted equity securities for investees operating in battery industry sector for long term strategic purposes which had been designed as FVTOCI. The Group has appointed a special team to monitor the price risk and will consider hedging the risk exposure should the need arise. The Group mitigates its price risk by performing detailed due diligence analysis of the investment.

5. Financial Risk Management (Continued)

(b) Price risk (Continued)

Sensitivity analysis

The sensitivity analyses below have been determined based on the exposure to equity price risks at the reporting date. For sensitivity analysis purpose, the sensitivity rate is 10% (2020: 10%) in current year as a result of the volatile financial market.

If the prices of the respective equity investments had been 10% (2020: 10%) higher/lower:

– post-tax profit for the year ended 31 December 2021 would increase/decrease by RMB6,207,000 (2020: RMB7,856,000) as a result of the changes in fair value of financial assets at FVTPL; and

– investment revaluation reserve would increase/decrease by RMB22,783,000 (2020: RMB30,555,000) for the Group as a result of the changes in fair value of equity investments at FVTOCI.

(c) Interest rate risk

The Group is exposed to fair value interest rate risk in relation to debt instruments at FVTOCI, pledged bank deposits, bank balances and borrowings (see notes 31 and 34 for details of these pledged bank deposits, bank balances and borrowings, respectively). The Group is also exposed to cash flow interest rate risk in relation to variable-rate bank balances (see note 31 for details), variable-rate bank borrowings (see note 34 for details). The directors of the Company monitor interest rate exposures and will consider hedging significant interest rate risk should the need arise.

In the opinion of the management of the Group, the expected change in interest rate will not have significant impact on the interest income on bank balances and interest expenses on borrowings, hence sensitivity analysis is not presented.

(d) Credit risk

The Group's maximum exposure to credit risk which will cause a financial loss to the Group is arising from the amount of each class of financial assets as disclosed in the consolidated statement of financial position. The Group does not hold any collateral or other credit enhancements to cover its credit risks associated with its financial assets.

Trade receivables arising from contracts with customers

In order to minimise the credit risk, the management of the Group has delegated a team responsible for determination of credit limits and credit approvals. Before accepting any new customer, the Group uses an internal credit scoring system to assess the potential customer's credit quality and defines credit limits by customer. Limits and scoring attributed to customers are reviewed twice a year. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts. In addition, the Group performs impairment assessment under ECL model upon application of HKFRS 9 on trade balances based on provision matrix for other debtors. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced.

5. Financial Risk Management (Continued)

(d) Credit risk (Continued)

Trade receivables arising from contracts with customers (Continued)

The Group's internal credit risk grading assessment comprises the following categories:

Internal credit rating	Description	Trade receivables and trade-related amounts due from related parties	Other financial assets
Grade A	The counterparty has a low risk of default and does not have any pastdue amounts or the counterparty is a new customer as a large producer with good reputation and credit rating based on internal assessment	Lifetime ECL – not credit-impaired	12-month ECL
Grade B	Debtor frequently repays after due dates but usually settle after due date or the counterparty is a new customer other than those grouped in grade A counterparties	Lifetime ECL – not credit-impaired	12-month ECL
Grade C	The counterparty delays its payment after due dates with no settlement yet or there have been significant increases in credit risk since initial recognition through information developed internally or external resources	Lifetime ECL – not credit-impaired	Lifetime ECL – not credit-impaired
Grade D	The counterparty has been charged by the Group or could not settle the receivables according to the contracts or there is other evidence indicating the asset is credit-impaired	Lifetime ECL – credit-impaired	Lifetime ECL – credit-impaired
Grade E	There is evidence indicating that the debtor is in severe financial difficulty and the Group has no realistic prospect of recovery	Amount is written off	Amount is written off

5. Financial Risk Management (Continued)

(d) Credit risk (Continued)

Trade receivables arising from contracts with customers (Continued)

The tables below detail the credit risk exposures of the Group's financial assets, which are subject to ECL assessment:

Financial assets	Internal credit rating	Gross carrying amount	
		2021	2020
		RMB'000	RMB'000
Trade receivables	Note i		
– Lifetime ECL (provision matrix)		**1,704,083**	962,465
– Credit impaired		**164,565**	182,155
		1,868,648	1,144,620
Other receivables	Note ii		
– 12-month ECL		**106,231**	156,753
– Lifetime ECL (not credit impaired)		**41,300**	37,823
– Credit impaired		**36,993**	35,212
		184,524	229,788
Loan receivables	Note ii		
– 12-month ECL		**491,339**	224,757
Trade-related amounts due from related parties	Note i		
– Lifetime ECL (not credit impaired)		**3,479**	13,475
Debt instruments at FVTOCI	Note iii		
– 12-month ECL		**987,055**	2,069,365
Pledged bank deposits	Note iii		
– 12-month ECL		**2,943,087**	1,303,060
Bank balances	Note iii		
– 12-month ECL		**8,697,364**	4,456,305
		15,175,496	9,441,370

Notes:

(i) For trade receivables and trade-related amounts due from related parties, the Group has applied the simplified approach in accordance with HKFRS 9 to measure the loss allowance at lifetime ECL. Except for debtors with significant outstanding balances or credit-impaired, the Group determines the expected credit losses on these receivables by using a provision matrix, grouped by internal credit rating.

(ii) For other and loan receivables, the Group has applied 12-month ECL assessment in accordance with HKFRS 9 to measure the loss allowance except for those balances that the management considered the credit risk has increased significantly and/or those balances that are considered to be credit impaired. The ECL on other receivables are assessed individually based on historical settlement records, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the end of reporting period.

5. Financial Risk Management (Continued)

(d) Credit risk (Continued)

Trade receivables arising from contracts with customers (Continued)

Notes: (Continued)

(iii) For bank balances and pledged bank deposits, the management considered the credit risk has not increased significantly since the initial recognition. According to the historical observed default rates of these debtors, the average loss rate is immaterial.

For debt instruments at FVTOCI, since they are all issued by reputable banks of good credit quality, the management of the Group considered the credit risk of these bank issued bills is insignificant and no impairment was provided on these receivables at the year end.

As part of the Group's credit risk management, the Group applies internal credit rating for its customers. The following table provides information about the exposure to credit risk and loss allowance for trade receivables which are assessed collectively based on provision matrix within lifetime ECL (not credit impaired). As at 31 December 2021, the credit impaired debtors with gross carrying amounts of RMB164,565,000 (2020: RMB182,155,000) were assessed individually.

Internal credit rating	Average loss rate	Gross carrying amount RMB'000	Impairment loss allowance RMB'000
As at 31 December 2021			
Grade A	0.5%	**381,473**	**1,907**
Grade B	5%	**1,151,323**	**57,566**
Grade C	20%	**171,287**	**34,257**
		1,704,083	**93,730**
As at 31 December 2020			
Grade A	0.5%	157,773	789
Grade B	5%	736,853	36,843
Grade C	20%	67,839	13,568
		962,465	51,200

The estimated loss rates are estimated based on historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information that is available without undue cost or effort. The grouping is regularly reviewed by management to ensure relevant information about specific debtors is updated.

During the year ended 31 December 2021, the Group provided RMB93,730,000 (2020: RMB51,200,000) impairment allowance for trade receivables, based on the provision matrix. Impairment allowance of RMB159,781,000 (2020: RMB176,172,000) were made on credit impaired debtors, which have been charged by the Group or have been included in the name list of entities, which could not pay back money according to their contracts, published on the website of the Supreme People's Court of the PRC.

5. Financial Risk Management (Continued)

(d) Credit risk (Continued)

Trade receivables arising from contracts with customers (Continued)

The following table shows the movement in lifetime ECL that has been recognised for trade receivables under the simplified approach.

	Lifetime ECL (not credit impaired) RMB'000	Lifetime ECL (credit impaired) RMB'000	Total RMB'000
As at 1 January 2020	30,736	188,485	219,221
– Impairment losses recognised, net of reversal	20,487	(11,943)	8,544
– Written off	(23)	(370)	(393)
As at 31 December 2020 and 1 January 2021	51,200	176,172	227,372
– Impairment losses recognised, net of reversal	42,530	52,805	95,335
– Written off	–	(69,196)	(69,196)
As at 31 December 2021	93,730	159,781	253,511

The following tables show reconciliation of loss allowances that has been recognised for other receivables.

	Lifetime ECL (not credit impaired) RMB'000	Lifetime ECL (credit impaired) RMB'000	Total RMB'000
As at 1 January 2020	245	37,790	38,035
– Impairment losses recognised	232	(552)	(320)
– Written off	(1)	(2,025)	(2,026)
As at 31 December 2020 and 1 January 2021	476	35,213	35,689
– Impairment losses recognised, net of reserval	–	16,791	16,791
– Written off	–	(15,771)	(15,771)
As at 31 December 2021	476	36,233	36,709

5. Financial Risk Management (Continued)

(e) Liquidity risk

The Group's objective is to maintain a balance between the continuity of funding and the flexibility through the use of bank and other borrowings. In addition, banking facilities have been put in place for contingency purposes.

The following table details the remaining contractual maturity for the Group's financial liabilities based on the agreed repayment terms. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

31 December 2021	Less than 1 year RMB'000	Between 1 and 2 years RMB'000	Between 2 and 5 years RMB'000	Over 5 years RMB'000	Total RMB'000
Bills, trade and other payables	8,923,504	–	–	–	8,923,504
Amounts due to related parties	239,970	–	–	–	239,970
Borrowings	2,941,571	447,850	972,953	19,293	4,381,667
	12,105,045	447,850	972,953	19,293	13,545,141

31 December 2020	Less than 1 year RMB'000	Between 1 and 2 years RMB'000	Between 2 and 5 years RMB'000	Over 5 years RMB'000	Total RMB'000
Bills, trade and other payables	7,328,643	–	–	–	7,328,643
Amounts due to related parties	142,308	–	–	–	142,308
Borrowings	971,770	341,695	392,635	19,600	1,725,700
	8,442,721	341,695	392,635	19,600	9,196,651

(f) Categories of financial instruments

	2021 RMB'000	2020 RMB'000
Financial assets:		
Financial assets at FVTPL:		
Mandatorily measured	1,600,095	572,591
Equity investments at FVTOCI	267,489	327,101
Debt instruments at FVTOCI	987,055	2,069,365
Financial assets at amortised cost (including cash and cash equivalents)	13,970,900	7,115,864
Financial liabilities:		
Financial liabilities at fair value through profit or loss:		
Derivative financial instruments	263	–
Financial liabilities at amortised cost	13,446,995	9,108,990

(g) Fair values

The carrying amounts of the Group's financial assets and financial liabilities at amortised cost as reflected in the consolidated statement of financial position approximate their respective fair values.

6. Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The following disclosures of fair value measurements use a fair value hierarchy that categorises into three levels the inputs to valuation techniques used to measure fair value:

Level 1 inputs: quoted prices (unadjusted) in active markets for identical assets or liabilities that the Group can access at the measurement date.

Level 2 inputs: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 inputs: unobservable inputs for the asset or liability.

The Group's policy is to recognise transfers into and transfers out of any of the three levels as of the date of the event or change in circumstances that caused the transfer.

(a) Disclosures of level in fair value hierarchy at 31 December 2021:

	Fair value measurements using			
	Level 1: RMB'000	**Level 2: RMB'000**	**Level 3: RMB'000**	**Total RMB'000**
Recurring fair value measurements:				
Assets:				
Equity investments at FVTOCI	**200,937**	**–**	**–**	**200,937**
Debt instruments at FVTOCI	**–**	**987,055**	**–**	**987,055**
Financial assets at FVTPL	**79,095**	**–**	**1,521,000**	**1,600,095**
Liabilities:				
Derivative financial instruments	**–**	**(263)**	**–**	**(263)**
Total recurring fair value measurements	**280,032**	**986,792**	**1,521,000**	**2,787,824**

Disclosures of level in fair value hierarchy at 31 December 2020:

	Fair value measurements using			
	Level 1: RMB'000	Level 2: RMB'000	Level 3: RMB'000	Total RMB'000
Recurring fair value measurements:				
Assets:				
Equity investments at FVTOCI	305,549	–	–	305,549
Debt instruments at FVTOCI	–	2,069,365	–	2,069,365
Financial assets at FVTPL	87,806	1,685	483,100	572,591
Total recurring fair value measurements	393,355	2,071,050	483,100	2,947,505

6. Fair Value Measurements (Continued)

(b) Reconciliation of assets measured at fair value based on level 3:

	Financial assets at FVTPL RMB'000
At 1 January 2020	804,600
Addition	9,439,420
Settlement	(9,815,134)
Fair value gain recognised in profit or loss (#)	54,214
At 31 December 2020 and 1 January 2021	483,100
Addition	14,844,810
Settlement	(13,880,184)
Fair value gain recognised in profit or loss (#)	73,274
At 31 December 2021	1,521,000
(#) Include gains or losses for assets held at 2021	–
(#) Include gains or losses for assets held at 2020	–

There were no transfers among level 1, level 2 and level 3 during both years.

(c) Disclosure of valuation process used by the Group and valuation techniques and inputs used in fair value measurements:

The Group's financial controller is responsible for the fair value measurements of assets and liabilities required for financial reporting purposes, including level 3 fair value measurements. The financial controller reports directly to the Board of Directors for these fair value measurements. Discussions of valuation processes and results are held between the financial controller and the Board of Directors at least twice a year.

Level 2 fair value measurements

Description	Valuation technique/inputs	2021 RMB'000	2020 RMB'000
Debt instruments at FVTOCI	Discounted cash flow method	**987,055**	2,069,365
Commodity derivative contracts (assets)	Reference to the quoted bid prices of similar standardised commodity derivative contracts	**–**	1,685
Commodity derivative contracts (liabilities)	Reference to the quoted bid prices of similar standardised commodity derivative contracts	**263**	–

Level 3 fair value measurements

Description	Valuation technique	Unobservable inputs	Range	Effect on fair value for increase of inputs	2021 RMB'000	2020 RMB'000
Structured bank deposits at FVTPL	Discounted cash flow method	Estimated return	1.5%-4.6%	increase	**1,521,000**	483,100

7. Revenue

Revenue represents the amounts received and receivable for goods sold excluding value added taxes, less returns and allowances and services provided by the Group to outside customers during the year.

	2021 **RMB'000**	2020 RMB'000
Sales of batteries and battery related accessories		
Lead-acid battery products (note)	**31,820,839**	28,337,484
Renewable resources product	**2,678,280**	1,207,542
Lithium-ion battery products	**987,231**	1,059,440
Others	**2,434,226**	1,306,880
Trading of new energy materials	**47,695,341**	21,613,693
	85,615,917	53,525,039

Note: It includes battery products mainly for electrical bicycle, electrical tricycle, tubular battery, lead-acid starter battery, energy storage battery and standby battery.

Disaggregation of revenue from contracts with customers:

For the year ended 31 December 2021	**Sales of batteries and battery related accessories RMB'000**	**Trading of new energy materials RMB'000**	**Total RMB'000**
Geographical markets			
PRC	**37,671,521**	**47,672,408**	**85,343,929**
Others	**249,055**	**22,933**	**271,988**
	37,920,576	**47,695,341**	**85,615,917**

For the year ended 31 December 2020	Sales of batteries and battery related accessories RMB'000	Trading of new energy materials RMB'000	Total RMB'000
Geographical markets			
PRC	31,778,649	21,613,693	53,392,342
Others	132,697	–	132,697
	31,911,346	21,613,693	53,525,039

For the years ended 31 December 2021 and 2020, all revenues were recognised at a point in time.

7. Revenue (Continued)

Sales of batteries and battery related accessories

The Group sells lead-acid battery products, recycled lead products, lithium-ion battery products and other products to the wholesale market. Fixed price contracts are entered into between the Group and customers. The expected duration of the contracts are less than one year. Revenue is recognised when control of the goods has transferred, being when the goods have been shipped to the wholesaler's specific location for most of the customers. For the remaining, control of the goods has transferred when the goods have been loaded into shipper's trucks (delivery). Following delivery, the wholesaler has full discretion over the manner of distribution and price to sell the goods, has the primary responsibility when on selling the goods and bears the risks of obsolescence and loss in relation to the goods. For sales to distributors, they are normally required to make full prepayment before goods delivery. The normal credit term for customers other than distributors is normally 45 days upon delivery.

Sales-related warranties associated with lead-acid battery products and lithium-ion battery products cannot be purchased separately and they serve as an assurance type of warranty that the products sold comply with agreed-upon specifications. Accordingly, the Group accounts for warranties in accordance with HKAS 37 Provisions, Contingent Liabilities and Contingent Assets consistent with its previous accounting treatment.

Trading of new energy materials

The Group recognises revenue from trading of new energy materials when the control of new energy materials has transferred, being when customers collect the new energy materials at the warehouse. Customers has full discretion over the manner of distribution and price to sell the goods, has the primary responsibility when on selling the goods and bears the risks of obsolescence and loss in relation to the goods. Customers are normally required to make full prepayment before goods delivery. Fixed price contracts are entered into between the Group and customers. The expected duration of the contracts are less than one year.

8. Segment Information

The Group's operating and reportable segments are based on information prepared and reported to the chief operating decision makers ("CODM"), being the board of directors of the Company, for the purposes of resource allocation and performance assessment. For the sales of batteries and battery related accessories operation, there were no further discrete financial information since the financial information provided to the CODM does not contain profit or loss information of each product line or each market segment and the CODM review the operating results of the sales of batteries and battery related accessories operation on a consolidated basis. Therefore, the operation of the Group constitutes two single operating and reportable segments, (1) sales of batteries and battery related accessories, (2) trading of new energy materials.

These segments are the basis on which the Group reports its segment information.

The CODM makes decisions according to operating result of each segment. No analysis of segment assets and segment liabilities presented is as the CODM does not regularly review such information for the purpose of resources allocation and performance assessment. Therefore, only segment revenue and segment results are presented. The accounting policies of the operating and reportable segment are the same as the Group's accounting policies described in note 3. Segment results represent the profits earned by each segment and exclude certain other gains and losses, corporate administrative expenses and finance costs. Intersegment sales are charged at cost plus profit approach.

Segment revenue and results

For the year ended 31 December 2021

	Sales of batteries and battery related accessories RMB'000	Trading of new energy materials RMB'000	Total RMB'000
Reportable segment revenue derived from the group's external customer	37,920,576	47,695,341	85,615,917
Inter-segment sales	–	425,539	425,539
Reportable segment revenue	37,920,576	48,120,880	86,041,456
Segment profit	1,613,606	15,241	1,628,847
Other gains and losses			(67,778)
Corporate administrative expenses			(9,110)
Finance costs			(747)
Profit for the year			1,551,212

8. Segment Information (Continued)

Segment revenue and results (Continued)

For the year ended 31 December 2020

	Sales of batteries and battery related accessories RMB'000	Trading of new energy materials RMB'000	Total RMB'000
Reportable segment revenue derived from the group's external customer	31,911,346	21,613,693	53,525,039
Inter-segment sales	1,609	9,391	11,000
Reportable segment revenue	31,912,955	21,623,084	53,536,039
Segment profit	2,490,997	33,015	2,524,012
Other gains and losses			10,226
Corporate administrative expenses			(28,829)
Finance costs			(834)
Profit for the year			2,504,575

Other segment information

For the year ended 31 December 2021	**Sales of batteries and battery related accessories RMB'000**	**Trading of new energy materials RMB'000**	**Unallocated RMB'000**	**Total RMB'000**
Depreciation of property, plant and equipments	**570,701**	**1,921**	**–**	**572,622**
Amortisation of right-of-use assets	**29,954**	**–**	**–**	**29,954**
Loss on disposal/written off of property, plant and equipments	**45,985**	**–**	**–**	**45,985**
Interest revenue	**211,166**	**7,037**	**1**	**218,204**
Income tax expense	**270,299**	**15,431**	**–**	**285,730**
Write-down of inventories	**12,888**	**–**	**–**	**12,888**

For the year ended 31 December 2020	Sales of batteries and battery related accessories RMB'000	Trading of new energy materials RMB'000	Unallocated RMB'000	Total RMB'000
Depreciation of property, plant and equipments	510,116	112	–	510,228
Amortisation of right-of-use assets	19,011	–	–	19,011
Loss on disposal/written off of property, plant and equipments	51,234	–	–	51,234
Interest revenue	122,831	14,931	168	137,930
Income tax expense	433,279	11,874	–	445,153
Write-down of inventories	4,831	–	–	4,831

8. Segment Information (Continued)

Information about major customers

During the year ended 31 December 2021 and 2020, none of the Group's individual customer contributed more than 10% to the total revenue of the Group.

9. Other Income

	2021 RMB'000	2020 RMB'000
Government grants (note)	**669,952**	405,728
Sales of scrapped materials	**106,982**	21,986
Dividend income	**10,881**	10,007
Others	**88,288**	92,770
	876,103	530,491

Note: The government grants mainly represent unconditional subsidies from the relevant development zone administrative committees and the local governments of the PRC to encourage the operations of certain subsidiaries. The government grants are accounted for as immediate financial support with no future related costs expected to be incurred and are not related to any assets.

10. Other Gains and Losses

	2021 RMB'000	2020 RMB'000
Net gains/(losses) on financial assets at FVTPL		
– structured bank deposits	**73,274**	54,214
– held-for-trading investments (note i)	**(14,074)**	32,664
– commodity derivative contracts (note ii)	**21,352**	(26,300)
Write off/loss on disposal of property, plant and equipments	**(45,985)**	(51,234)
Net foreign exchange losses	**11,834**	27,064
	46,401	36,408

Notes:

i) Net (losses)/gains on held-for-trading investments included losses arising on changes in fair value of RMB14,074,000 (2020: gain of RMB32,664,000), which were earned on these investments in listed equity securities during the year ended 31 December 2021. Such gains/(losses) included unrealised losses of RMB15,511,000 (2020: gains of RMB32,664,000) and realised gains of RMB1,437,000 (2020: Nil).

ii) Net gains/(losses) on commodity derivative contracts represented realised gains of RMB21,615,000 (2020: losses of RMB28,057,000) and unrealised losses of RMB263,000 (2020: gains of RMB1,757,000) arising on changes in fair value of commodity derivative contracts.

11. Impairment Losses, Net of Reversal

	2021 RMB'000	2020 RMB'000
Impairment losses, net of reversal, recognised on		
– Trade receivables	**95,335**	8,544
– Other receivables	**16,791**	(320)
– Loan receivables	**1,333**	1,124
	113,459	9,348

12. Finance Costs

	2021 RMB'000	2020 RMB'000
Interest on borrowings	**207,276**	130,902
Effective interest on long-term loan note	**–**	24,217
Interest on factorised bills	**45,281**	47,472
Lease liabilities interest	**1,332**	1,358
Others	**200**	8,182
	254,089	212,131

13. Taxation

	2021 RMB'000	2020 RMB'000
Hong Kong Profits Tax:		
– Current tax	**–**	–
PRC Enterprise Income Tax ("EIT"):		
– Current tax	**509,976**	479,880
– Over provision in prior years	**–**	(25,076)
Deferred tax (note 23):	**(224,246)**	(9,651)
	285,730	445,153

The Company was incorporated in the Cayman Islands and is exempted from income tax.

For the year ended 31 December 2021 and 2020, Hong Kong Profits Tax is calculated under two-tier profits tax system where the first HK$2 million of estimated assessable profits is taxed at a reduced rate of 8.25% and the remaining of estimated assessable profits is taxed at 16.5%.

13. Taxation (Continued)

Under the Law of the People's Republic of China on Enterprise Income Tax (the "EIT Law") and Implementation Regulation of the EIT Law, the applicable tax rate of PRC subsidiaries is 25% during the year ended 31 December 2021 except that, Tianneng Battery Group Co., Ltd. ("Tianneng Battery"), Tianneng Battery Group (Anhui) Co., Ltd. ("Tianneng Battery Anhui"), 天能帥福得能源股份有限公司, Zhejiang Tianneng Power Energy Co., Ltd. ("Zhejiang Tianneng Power"), Tianneng Battery (Wuhu) Co., Ltd. ("Tianneng Battery Wuhu"), Anhui Zhongneng Power Supply Co., Ltd. ("Anhui Zhongneng"), Tianneng Group (Henan) Energy Technology Co., Ltd. ("Tianneng Henan"), Jiyuan Wanyang Green Energy Co., Ltd. ("Jiyuan Wanyang"), Tianneng Battery Group Jiangsu Technology Co., Ltd. ("Tianneng Jiangsu Technology"), Zhejiang Tianneng Battery (Jiangsu) New Energy Co., Ltd., Zhejiang Hercules Energy Co., Ltd., Anhui Hongda Power Supply Co., Ltd. ("Anhui Hongda"), 浙江暢通能源有限公司, 天能集團江蘇特種電源有限公司 and 浙江天能汽車電池有限公司 which were recognised as High-Tech companies and enjoyed a tax rate of 15% for the year ended 31 December 2021 (1.1.2020 to 31.12.2020: 15% applicable for Tianneng Battery, Tianneng Battery Anhui, Zhejiang Tianneng Power, Tianneng Battery Wuhu, Anhui Zhongneng, Tianneng Henan, Jiyuan Wanyang, Tianneng Jiangsu Technology, Zhejiang Tianneng Battery (Jiangsu) New Engergy Co., Ltd., Zhejiang Hercules Energy Co., Ltd, Anhui Hongda, 天能集團江蘇科技有限公司, 天能帥福得能源股份有限公司, 浙江昊楊新能源科技有限公司 and 浙江暢通能源有限公司).

The taxation charge for the year can be reconciled to the profit before taxation per consolidated statement of profit or loss and other comprehensive income as follows:

	2021 RMB'000	2020 RMB'000
Profit before taxation	**1,836,942**	2,949,728
Tax at the applicable income tax rate of 25% (2020: 25%)	**459,236**	737,432
Tax effect of income not taxable and expenses not deductible for tax purposes	**3,167**	(3,931)
Tax effect of tax losses not recognised	**11,788**	17,976
Utilisation of tax losses previously not recognised	**(39,317)**	(23,222)
Income tax at concessionary rates	**(9,316)**	(122,719)
Over provision in prior years	**–**	(25,076)
Tax effect of additional deduction related to research and development costs and certain staff costs	**(148,565)**	(132,372)
Withholding tax on undistributed profits of PRC subsidiaries	**8,737**	(2,935)
	285,730	445,153

14. Profit for the Year

The Group's profit for the year is stated after charging the following:

	2021 RMB'000	2020 RMB'000
Auditor's remuneration	**1,920**	1,720
Cost of inventories sold	**80,994,895**	48,032,934
Write-down of inventories (included in cost of sales)	**12,888**	4,831
Depreciation of property, plant and equipments	**572,622**	510,228
Amortisation of right-of-use assets	**29,954**	19,011
Expenses related to short-term leases	**4,113**	10,548
Expenses related to variable lease payments not included in lease liabilities	**–**	9,140
Directors' remuneration (note 15)	**4,528**	4,489
Other staff costs	**2,403,002**	2,111,060
Retirement benefits scheme contributions, excluding directors	**286,116**	134,577
Share-based payments	**13,316**	13,084
Total staff costs	**2,706,962**	2,263,210

At 31 December 2021 and 2020, the Group had no forfeited contributions available to reduce its contributions to the retirement benefit schemes in the future years.

15. Directors' and Chief Executive's Emoluments

For the year ended 31 December 2021	**Fees RMB'000**	**Salaries and other benefits RMB'000**	**Contributions to retirement benefit schemes RMB'000**	**Total RMB'000**
Executive Director				
Zhang Tianren (i)	**–**	**1,516**	**44**	**1,560**
Zhang Aogen	**–**	**686**	**–**	**686**
Zhang Kaihong	**–**	**471**	**–**	**471**
Shi Borong	**–**	**493**	**–**	**493**
Zhou Jianzhong	**–**	**703**	**15**	**718**
Independent Non-Executive Director				
Huang Dongliang	**200**	**–**	**–**	**200**
Wu Feng (ii)	**100**	**–**	**–**	**100**
Zhang Yong	**200**	**–**	**–**	**200**
Xia Yongyao (iii)	**100**	**–**	**–**	**100**
Total	**600**	**3,869**	**59**	**4,528**

15. Directors' and Chief Executive's Emoluments (Continued)

For the year ended 31 December 2020	Fees RMB'000	Salaries and other benefits RMB'000	Contributions to retirement benefit schemes RMB'000	Total RMB'000
Executive Director				
Zhang Tianren (i)	–	1,514	43	1,557
Zhang Aogen	–	690	–	690
Zhang Kaihong	–	667	–	667
Shi Borong	–	226	–	226
Zhou Jianzhong	–	735	14	749
Independent Non-Executive Director				
Huang Dongliang	200	–	–	200
Wu Feng (ii)	200	–	–	200
Zhang Yong	200	–	–	200
Total	600	3,832	57	4,489

Notes:

(i) Mr. Zhang Tianren is also the chief executive of the Company and his emoluments disclosed above include those for services rendered by him as the chief executive.

(ii) Resigned as a director on 30 June 2021.

(iii) Appointed as a director on 30 June 2021 and resigned as a director on 15 March 2022.

For the year ended 31 December 2021 and 2020, no director included in the five highest paid employees and the remaining five non-directors.

The highest paid directors are are set out the above table and employees for the year are as follows:

	2021 RMB'000	2020 RMB'000
Basic salaries and allowances	**10,200**	12,420
Retirement benefits scheme contributions	**45**	39
	10,245	12,459

15. Directors' and Chief Executive's Emoluments (Continued)

The emoluments of the five highest individuals (including directors) whose remuneration fell within following bands is as follows:

	Number of employees	
	2021	2020
HK$1,500,001 to HK$2,000,000	**1**	1
HK$2,000,001 to HK$2,500,000	**2**	2
HK$2,500,001 to HK$3,000,000	**1**	–
HK$3,000,001 to HK$3,500,000	**1**	–
HK$3,500,001 to HK$4,000,000	**–**	1
HK$4,000,001 to HK$4,500,000	**–**	1

During the year, no emoluments were paid by the Group to the directors or the five highest paid individuals as an inducement to join or upon joining the Group or as compensation for loss of office. None of the directors has waived or agreed to waive any emoluments during both years.

16. Dividends

	2021 RMB'000	2020 RMB'000
Dividends recognised as distribution during the year: 2021: 2020 final dividend of HK40 cents (equivalent to RMB33.67 cents) per ordinary share (2020: 2019 final dividend of HK39.00 cents (equivalent to RMB35.04 cents) per ordinary share)	**374,810**	404,261

Subsequent to the end of the reporting period, a final dividend of HK40 cents (equivalent to RMB32.54 cents) (2020: HK40.00 cents (equivalent to RMB33.67 cents)) in respect of the year ended 31 December 2020 per ordinary share has been proposed by the directors and is subject to approval by the shareholders in the forthcoming annual general meeting.

17. Earnings Per Share

	2021 RMB'000	2020 RMB'000
Earnings for the purposes of calculating basic and diluted earnings per share – Profit for the year attributable to the owners of the Company	**1,299,952**	2,476,921

	2021	2020
Number of shares:		
Weighted average number of ordinary shares for the purpose of calculating basic earnings per share	**1,126,124,500**	1,126,376,156
Effect of dilutive potential ordinary shares – share options	**27,132,350**	27,420,469
Weighted average number of ordinary shares for the purpose of calculating diluted earnings per share	**1,153,256,850**	1,153,796,625

18. Property, Plant and Equipment

	Buildings RMB'000	Plant and machinery RMB'000	Motor vehicles RMB'000	Furniture, fixtures and equipment RMB'000	Construction in progress RMB'000	Total RMB'000
COST						
At 1 January 2020	2,842,061	3,608,430	82,113	258,530	283,869	7,075,003
Additions	26,474	345,208	14,079	35,418	719,335	1,140,514
Acquisition of subsidiaries	33,850	27,146	178	612	62,436	124,222
Transfer	297,397	180,100	1,672	2,200	(481,369)	–
Disposal/write-off	(62,493)	(112,356)	(6,094)	(20,144)	–	(201,087)
At 31 December 2020 and 1 January 2021	3,137,289	4,048,528	91,948	276,616	584,271	8,138,652
Additions	119,174	522,818	26,199	31,756	1,033,243	1,733,190
Transfer	348,190	252,834	534	4,829	(606,387)	–
Disposal/write-off	(3,897)	(192,999)	(8,436)	(3,856)	–	(209,188)
At 31 December 2021	3,600,756	4,631,181	110,245	309,345	1,011,127	9,662,654
ACCUMULATED DEPRECIATION AND IMPAIRMENT						
At 1 January 2020	824,009	1,251,050	50,753	165,894	–	2,291,706
Provided for the year	138,705	334,755	11,544	25,224	–	510,228
Eliminated on disposal/write-off	(30,375)	(71,423)	(5,460)	(11,049)	–	(118,307)
At 31 December 2020 and 1 January 2021	932,339	1,514,382	56,837	180,069	–	2,683,627
Provided for the year	124,631	396,166	14,095	37,730	–	572,622
Eliminated on disposal/write-off	(338)	(87,771)	(7,341)	(2,633)	–	(98,083)
At 31 December 2021	1,056,623	1,822,777	63,591	215,166	–	3,158,166
CARRYING VALUES						
At 31 December 2021	2,544,124	2,808,404	46,654	94,179	1,011,127	6,504,488
At 31 December 2020	2,204,950	2,534,146	35,111	96,547	584,271	5,455,025

As at 31 December 2021, included in buildings held for own use are buildings with aggregate carrying amount of approximately RMB262,980,000 (2020: RMB222,448,000) whose property certificates are in the process of obtaining.

19. Right-of-Use Assets

	2021 RMB'000	2020 RMB'000
At 31 December:		
Right-of-use assets		
– Land use rights	**1,077,504**	769,904
– Land and buildings	**21,679**	24,052
	1,099,183	793,956
Lease commitments of short-term leases	**238**	474
The maturity analysis, based on undiscounted cash flows, of the Group's lease liabilities is as follows:		
– Less than 1 year	**9,182**	9,676
– Between 1 and 2 years	**5,486**	7,196
– Between 2 and 5 years	**7,874**	6,537
– Over 5 years	**2,394**	4,566
	24,936	27,975
Year ended 31 December:		
Amortisation charge of right-of-use assets		
– Land lease payments	**19,711**	11,097
– Land and buildings	**10,243**	7,914
	29,954	19,011
Lease interests	**1,332**	1,358
Expenses related to short-term leases	**4,113**	10,548
Expenses related to variable lease payments not included in lease liabilities	**–**	9,140
Total cash outflow for leases	**17,288**	30,793
Additions to right-of-use assets	**335,181**	219,247

The Group leases various (i) land and buildings lease agreements are typically made for fixed periods of 2-10 years and; (ii) land use rights lease agreements are typically made for fixed periods of 35-70 years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants and the leased assets may not be used as security for borrowing purposes.

Some of the Group's plant and machinery leases contain variable lease payment terms that are linked to production generated from the Group's factory. There is a wide range of sales percentages applied. Variable lease payment terms are used to minimise the capital investments for the production. Variable lease payments that depend on production are produced in the year in which the condition that triggers those payments occurs.

20. Goodwill

	RMB'000
COST	
At 1 January 2020	8,715
Arising on acquisition of subsidiaries	22,806
At 31 December 2020, 1 January 2021 and 31 December 2021	31,521
ACCUMULATED IMPAIRMENT LOSSES	
At 1 January 2020, 31 December 2020, 1 January 2021 and 31 December 2021	8,216
CARRYING AMOUNT	
At 31 December 2021	23,305
At 31 December 2020	23,305

Goodwill acquired in a business combination is allocated, at acquisition, to the cash generating units ("CGUs") that are expected to benefit from that business combination. The carrying amount of goodwill had been allocated to the cash generating unit of sales of batteries and battery related accessories.

21. Interest in Associates

	2021 **RMB'000**	2020 RMB'000
Share of net assets	**36,115**	20,670

The following table shows, in aggregate, the Group's share of the amounts of all individually immaterial associates that are accounted for using the equity method.

	2021 **RMB'000**	2020 RMB'000
At 31 December: Carrying amounts of interests	**36,115**	20,670
Year ended 31 December: Loss from continuing operations	**(2,735)**	(776)
Profit after tax from discontinued operations	**–**	–
Other comprehensive income	**–**	–
Total comprehensive expense	**(2,735)**	(776)

The amount due from associates are unsecured, non-interest bearing and have no fixed repayment terms.

22. Equity Investments at Fair Value Through Other Comprehensive Income

	2021 **RMB'000**	2020 RMB'000
Equity securities listed on the Hong Kong Stock Exchange	**200,937**	305,549
Unlisted equity securities in PRC	**66,552**	21,552
	267,489	327,101

These investments are not held for trading, instead, they are held for long-term strategic purposes. The directors of the Company have elected to designate these investments as equity investments at FVTOCI as they believe that recognising short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes and realising their performance potential in the long run.

The cost of the unlisted equity securities in PRC approximate its fair value and is an appropriate estimate of fair value since there is insufficient more recent information available to measure fair value.

23. Deferred Taxation

	Asset-related government grants RMB'000	Withholding tax on undistributed profits RMB'000	Fair adjustment on property, plant and equipment and right-of-used assets from acquisition of subsidiaries RMB'000	Interest capitalisation RMB'000	Provision for inventories, trade and other receivables RMB'000	Fair value change of debt instruments at FVTOCI RMB'000	Accrued warranty RMB'000	Accrued expenses RMB'000	Impairment loss on property, plant and equipment RMB'000	Tax losses RMB'000	Others RMB'000	Total RMB'000
At 1 January 2020	86,746	(50,845)	(12,883)	(11,813)	57,952	1,591	121,616	81,292	2,493	100,064	(2,557)	373,656
Credit/(charge) to profit or loss	(262)	2,935	-	1,098	4,813	-	13,618	(34,355)	(29)	21,602	231	9,651
Credit to other comprehensive income	-	-	-	-	-	2,456	-	-	-	-	-	2,456
Reversal on payment of withholding tax on distribution of earnings from PRC subsidiaries	-	10,000	-	-	-	-	-	-	-	-	-	10,000
At 31 December 2020 and 1 January 2021	86,484	(37,910)	(12,883)	(10,715)	62,765	4,047	135,234	46,937	2,464	121,666	(2,326)	395,763
Credit/(charge) to profit or loss	2,042	(8,373)	-	1,098	(6,748)	-	19,056	29,467	-	187,002	1,066	224,246
Charge to other comprehensive income	-	-	-	-	-	(2,153)	-	-	-	-	-	(2,153)
Reversal on payment of withholding tax on distribution of earnings from PRC subsidiaries	-	10,000	-	-	-	-	-	-	-	-	-	10,000
At 31 December 2021	88,526	(36,647)	(12,883)	(9,617)	56,017	1,894	154,290	76,404	2,464	308,668	(1,260)	627,856

The following is the analysis of the deferred tax balance for financial report presentation purposes.

	2021 **RMB'000**	2020 RMB'000
Deferred tax assets	**688,263**	459,597
Deferred tax liabilities	**(60,407)**	(63,834)
	627,856	395,763

At the end of the year ended 31 December 2021, the Group had unused tax losses of approximately RMB136,968,000 (2020: RMB99,736,000) available to offset against future profits, in respect of which no deferred tax assets been recognised, due to the unpredictability of future profit streams. Such unrecognised losses will expire at various dates up to and including 2026 (2020: 2025).

23. Deferred Taxation (Continued)

Under the EIT Law, starting from 1 January 2008, 10% withholding income tax is imposed on dividends declared in respect of profits earned in year 2008 onwards and distributed to foreign investors for companies established in the PRC. For investors incorporated in Hong Kong, a preferential rate of 5% will be applied where appropriate. Other than the PRC withholding income tax provided in respect of undistributed profits of PRC subsidiaries as above, no deferred taxation has been provided for the remaining accumulated profits of approximately RMB8,079 million as at 31 December 2021 (2020: RMB7,084 million), which was derived from the PRC subsidiaries since 1 January 2008 as the Group has set aside such sum for non-distributable purpose, and is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

24. Inventories

	2021 RMB'000	2020 RMB'000
Raw materials	**1,505,284**	1,139,174
Work in progress	**2,316,783**	2,846,635
Finished goods	**662,557**	500,091
	4,484,624	4,485,900

25. Properties for Sale under Development

	2021 RMB'000	2020 RMB'000
Properties for sale under development	**768,189**	389,696

All the properties for sale under development were located in Huzhou, the PRC.

26. Trade and Other Receivables

	2021 RMB'000	2020 RMB'000
Trade receivables	**1,868,648**	1,144,620
Less: Allowance for credit losses	**(253,511)**	(227,372)
	1,615,137	917,248
Other receivables	**184,524**	229,788
Less: Allowance for credit losses	**(36,709)**	(35,689)
	147,815	194,099
Prepayment	**1,203,124**	996,888
PRC value added tax receivables	**362,841**	241,046
	3,328,917	2,349,281

Trade receivables are non-interest-bearing, except for trade receivables from factoring loan services of RMB276,675,000 (2020: RMBNil) which bear interest at 7.5% to 11% per annum (2020: Nil).

26. Trade and Other Receivables (Continued)

The following is an aged analysis of trade receivables net of allowance for credit losses presented based on the invoice dates.

	2021 RMB'000	2020 RMB'000
0 to 45 days	**978,311**	725,779
46 to 90 days	**349,392**	101,132
91 to 180 days	**160,253**	51,559
181 to 365 days	**86,048**	12,939
1 year to 2 years	**24,986**	11,911
Over 2 years	**16,147**	13,928
	1,615,137	917,248

27. Loan Receivables

	Note	2021 RMB'000	2020 RMB'000
Carrying amount of loan receivables based on maturity set out in the loan agreements:			
Non-current:			
Receivables from sale-leaseback transaction		**286,360**	189,757
Less: Provision for impairment losses		**(1,432)**	(949)
	(i)	**284,928**	188,808
Current:			
Receivables from sale-leaseback transaction/other loan receivable		**204,979**	35,000
Less: Provision for impairment losses		**(1,025)**	(175)
	(ii)	**203,954**	34,825
		488,882	223,633

Note:

(i) During the year ended 31 December 2021, the Group entered into a sale-leaseback transaction agreement with 22 (2020: 5) independent borrowers. The sale-leaseback transaction of RMB491,339,000 (2020: RMB189,757,000) were guaranteed by independent third parties with interest bearing at effective interest rate ranging from 5.31% – 19.62% (2020: 6.35% – 8.08%) per annum and repayable in 2023 – 2024 (2020: 2023).

(ii) Other loan receivable of RMBNil (2020: RMB35,000,000) to independent third party which was secured by the trade receivable and repayable within 1 year.

28. Debt Instruments at Fair Value Through Other Comprehensive Income

As part of the Group's cash flow management, the Group will discount some of the bills to financial institutions and endorse some of them to suppliers before the bills are due for payment, and derecognise the bills discounted and endorsed on the basis that the Group has transferred substantially all risks and rewards to the relevant counterparties. Thus, the bills receivables held by the Group are managed within a business model whose objective is both to collect the contractual cash flows and to sell. Therefore, these bills receivables were subsequently classified as debt instruments at FVTOCI upon adoption of HKFRS 9.

The following is an aged analysis of debt instruments at FVTOCI, net of fair value remeasurement under the requirement of HKFRS 9, at the end of the reporting period:

	2021 **RMB'000**	2020 RMB'000
0 to 180 days	**885,953**	2,010,928
181 to 365 days	**101,102**	58,437
	987,055	2,069,365

The debt instruments at FVTOCI are all issued by reputable banks of good credit quality. The management of the Group considered the credit risk of these bank issued bills is insignificant and no impairment was provided on them at the year end.

29. Transfers of Financial Assets

At 31 December 2021 and 2020, the Group has discounted bank issued bills receivables to banks and transferred bank issued bills receivables to its suppliers to settle its payables through endorsing the bank issued bills to its suppliers. The Group has limited exposure in respect of the settlement obligation of these bank issued bills receivable under relevant PRC rules and regulations should the issuing bank failed to settle the bills on maturity date. The Group considered the issuing banks of the bills are of good credit quality and the risk of non-settlement by the issuing banks on maturity is insignificant. In the opinion of the directors of the Company, the Group transferred and did not retain substantially all the risks and rewards of ownership of these bank issued bills. Accordingly, the Group has derecognised these bank issued bills receivables and the payables to suppliers in their entirety.

As at 31 December 2021, the Group's maximum exposure to loss, which is the same as the amount payable by the Group to banks or the suppliers in respect of the discounted bank issued bills and endorsed bank issued bills, should the issuing banks fail to settle the bills on maturity, amounted to RMB4,039,184,000 (2020: RMB3,529,243,000) and RMB1,124,636,000 (2020: RMB1,070,248,000), respectively.

All the bank issued bills receivables discounted to banks or endorsed to suppliers of the Group have a maturity date of less than one year from the end of the reporting period.

30. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss

	2021 **RMB'000**	2020 RMB'000
Financial assets/(liabilities) mandatorily measured at FVTPL:		
Structured bank deposits	**1,521,000**	483,100
Equity securities listed in PRC	**39,610**	34,365
Equity securities listed in Hong Kong	**39,485**	53,441
Commodity derivative contracts – financial (liabilities)/assets	**(263)**	1,685
	1,599,832	572,591

30. Financial Assets/(Liabilities) at Fair Value Through Profit or Loss (Continued)

The following is the analysis of the financial assets at FVTPL balance for financial report presentation purpose:

	2021 RMB'000	2020 RMB'000
Financial assets at FVTPL	**1,600,095**	572,591
Derivative financial instruments	**(263)**	–
	1,599,832	572,591

31. Pledged Bank Deposit/Bank Balances and Cash

Pledged bank deposits represented bank deposits pledged to banks to secure short-term banking facilities granted to the Group. The pledged deposits at 31 December 2021 carried an interest rate which ranged from 0.3% to 3.9% (2020: 0.3% to 3.99%) per annum.

Bank balances and cash comprise cash and short-term deposits with an original maturity of three months or less which are held with banks and carry interest at prevailing market rate. At 31 December 2021, bank balances carry interest at market rates which ranged from 0.01% to 0.35% (2020: 0.01% to 0.35%) per annum.

32. Bills, Trade and Other Payables

	2021 RMB'000	2020 RMB'000
Trade payables	**3,004,111**	2,538,199
Bills payables	**3,278,323**	2,426,921
Other payables and accrued charges	**2,641,070**	2,390,882
	8,923,504	7,356,002

The Group normally receives credit terms of 5 days to 90 days (2020: 5 days to 90 days) from its suppliers. The following is an aged analysis of trade payables at the end of the reporting period, presented based on the invoice date:

	2021 RMB'000	2020 RMB'000
0 to 90 days	**2,879,511**	1,984,179
91 to 180 days	**5,883**	370,169
181 to 365 days	**61,971**	85,243
1 to 2 years	**27,333**	70,283
Over 2 years	**29,413**	28,325
	3,004,111	2,538,199

The following is an aged analysis of bills payables at the end of the reporting period:

	2021 RMB'000	2020 RMB'000
0 to 180 days	**3,228,323**	2,329,841
181 to 365 days	**50,000**	97,080
	3,278,323	2,426,921

33. Amounts Due from (to) Related Parties

	2021 RMB'000	2020 RMB'000
Details of the amounts due to related parties are as follows:		
Name of related parties		
浙江暢通科技有限公司 Zhejiang Changtong Technology Company Limited ("Changtong Technology") (note i)	**236,469**	96,372
長興遠鴻機械有限公司 ("遠鴻機械") (note ii)	**493**	1,202
濟源市萬洋冶煉(集團)有限公司 Jiyuan City Wangyang Smelting (Group) Co., Ltd. ("Wanyang Group") (note iii)	**3,008**	43,789
浙江長興欣欣包裝有限公司 Zhejiang Changxing Xin Xin Packaging Co., Ltd ("Xin Xin Packaging") (note iv)	**–**	945
	239,970	142,308

Details of the amounts due from related parties are as follows:

Name of related parties	**2021 RMB'000**	2020 RMB'000
Changtong Technology	**–**	138
Wanyang Group	**–**	13,337
浙江昊楊物業管理有限公司 Zhejiang Haoyang Property Management Co., Ltd ("Haoyang Property Management") (note v)	**3,479**	–
	3,479	13,475

Notes:

i) Changtong Technology is beneficially owned by Ms. Zhang Mei'e who are the sister of Mr. Zhang Tianren ("Mr. Zhang") and her spouse, Mr. Ni Danqing.

ii) 遠鴻機械 is beneficially owned by Ms. Zhang Kaihong's son.

iii) Wanyang Group is a party which holds 49% interest of Jiyuan Wanyang Green Energy Co., Ltd., a 51% owned subsidiary of the Company.

vi) Xin Xin Packaging is beneficially owned by Ms. Chen Pingping and Ms. She Fangli, who are the cousin and niece respectively of Mr. Zhang Tianren ("Mr. Zhang").

v) Haoyang Property Management is beneficially owned by Mr. Zhang Tianren.

The amounts due to/from Changtong Technology, 遠鴻機械, Wanyang Group, Xin Xin Packaging and Haoyang Property Management are trade nature and have no fixed repayment terms.

34. Borrowings

	2021 RMB'000	2020 RMB'000
Bank borrowings	**4,065,392**	1,455,842
Other borrowings	**218,129**	182,198
	4,283,521	1,638,040
Secured	**179,675**	125,907
Unsecured	**4,103,846**	1,512,133
	4,283,521	1,638,040
Carrying amount are repayable, based on scheduled repayment dates set out in the loan agreements, as follows:		
Within one year	**2,874,839**	919,123
Within a period of more than one year but not exceeding two years	**428,980**	317,169
Within a period of more than two years but not exceeding five years	**964,009**	386,161
Over five years	**15,693**	15,587
	4,283,521	1,638,040
Less: Amount due and repayable within one year shown under current liabilities	**(2,874,839)**	(919,123)
Amount shown under non-current liabilities	**1,408,682**	718,917

Notes:

At 31 December 2021, the bank borrowings of RMB4,065,392,000 (2020: RMB1,455,842,000) carry fixed and variable interest rates ranging from 1.90% to 6.50% (2020: 1.90% to 6.50%) per annum.

At 31 December 2021, other borrowings amounted to RMB218,129,000 (2020: RMB182,198,000) carry fixed and variable interest rates ranging from 5% to 9.05% (2020: 4.74% to 9.05%) per annum.

Details of assets pledged by the Group at the end of the reporting period are set out in note 43.

35. Deferred Government Grants

	2021 RMB'000	2020 RMB'000
To be released:		
– Within one year	**42,026**	38,699
– After one year	**591,701**	509,833
	633,727	548,532

Deferred capital grants relate to the acquisition of the property, plant and equipment and land use right. The grant has been treated as a deferred grant and is being amortised in line with the depreciable assets to which it relates.

36. Provision

	2021 RMB'000	2020 RMB'000
At 1 January	**622,309**	650,728
Provision in the year	**763,745**	618,485
Utilisation of provision	**(665,762)**	(646,904)
At 31 December	**720,292**	622,309

The Group provided a warranty of up to fifteen months on all lead-acid motive battery products. For lead-acid motive battery products found to be defective under the terms of the warranty, the Group undertakes to replace the battery free of charge for products returned within eight months from the date of sale, and to repair the battery free of charge for products returned between the ninth month and the fifteenth month after the date of sale. A warranty provision is estimated and accrued at the time of sale and is based upon various factors including the actual warranty claims, unit sales history, the estimated replacement cost and repair cost for returned products, predicted future warranty claim rate with reference to prior experiences and volumes of products sold. The amount of accrued warranty is adjusted as required to reflect the actual costs incurred when information becomes available.

37. Contract Liabilities

Disclosures of revenue-related items:

	31 December		1 January
	2021 RMB'000	2020 RMB'000	2020 RMB'000
Contract liabilities	**2,129,216**	2,941,370	1,749,311
Revenue recognised in the year that was included in contract liabilities at beginning of the year	**2,941,370**	1,749,311	1,647,223

Transaction prices allocated to performance obligations unsatisfied at end of the year and expected to be recognised as revenue in:

	2021 RMB'000	2020 RMB'000
–2021	**–**	2,941,370
–2022	**2,129,216**	–
	2,129,216	2,941,370

A contract liability represents the Group's obligation to transfer products or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

38. Lease Liabilities

	Lease payments		Present value of lease payments	
	2021 RMB'000	2020 RMB'000	**2021 RMB'000**	2020 RMB'000
Within one year	**9,182**	9,676	**8,727**	8,689
In the second to fifth years, inclusive	**13,360**	13,733	**11,409**	12,228
After five years	**2,394**	4,566	**2,228**	4,046
	24,936	27,975	**22,364**	24,963
Less: Future finance charges	**(2,572)**	(3,012)	**N/A**	N/A
Present value of lease liabilities	**22,364**	24,963		
Less: Amount due for settlement within 12 months (shown under current liabilities)			**(8,727)**	(8,689)
Amount due for settlement after 12 months			**13,637**	16,274

At 31 December 2021, the effective borrowing rate ranging from 4.9% (2020: 4.9%). Interest rates are fixed at the contract dates and thus expose the Group to fair value interest rate risk.

39. Share Capital

	Number of shares	Amount equivalent to share capital RMB'000
Authorised:		
Shares of the Company with nominal value of HK$0.1 each		
At 1 January 2020, 31 December 2020, 1 January 2021 and 31 December 2021	2,000,000,000	212,780
Issued and fully paid:		
At 1 January 2020	1,126,726,500	109,905
Repurchase and cancellation of shares	(602,000)	(55)
At 31 December 2020, 1 January 2021 and 31 December 2021	1,126,124,500	109,850

On 1 June 2020, the Company repurchased 602,000 shares and on 30 June 2020 cancelled 602,000 shares of its own shares through purchases on the Stock Exchange. The total amount paid to acquire the shares was approximately HK$5,300,000 (equivalent to RMB4,891,000) and has been deducted from the share capital and share premium account.

Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximising the return to shareholders through the optimisation of the debt and equity balance. The Group's overall strategy remains unchanged from prior year.

The capital structure of the Group consists of net debts, which includes borrowings as disclosed in notes 34, net of bank balances and cash, and equity attributable to equity holders of the Company, comprising issued share capital, reserves and accumulated profits.

The directors of the Company review the capital structure on a semi-annual basis. As part of this review, the directors consider the cost of capital and the risks associated with each class of capital. Based on the recommendations of the directors, the Group will balance its overall capital structure through the payment of dividends, new share issues and share buy-backs as well as the issue of new debt or the redemption of existing debt.

40. Reserves

Special reserve

The special reserve of the Group represents the difference between the nominal amount of the shares issued by Tianneng International Investment Holdings Limited ("Tianneng BVI") and the aggregate amount of paid-in capital of the subsidiaries acquired by Tianneng BVI pursuant to the group reorganisation which took place in 2004 as more fully explained in the prospectus of the Company dated 29 May 2007.

Capital reserve

	2021 **RMB'000**	2020 RMB'000
Share-based payment (note i)	**57,010**	57,010
30% interest in Anhui Zhongneng (note ii)	**4,194**	4,194
Acquisition of additional interests in subsidiaries (note iii)	**12,460**	12,460
Reduction of equity interest in Zhejiang Tianneng Energy (note iv)	**64,600**	64,600
Acquisition of additional interests in Zhejiang Tianneng Energy (note v)	**(112,237)**	(112,237)
Reduction of equity interest in Zhejiang Tianneng Energy (note vi)	**131,620**	131,620
Reduction of equity interest in Tianneng Battery (note vii)	**93,823**	93,823
Tianneng Battery A-share offering (note viii)	**3,407,043**	–
Others (note ix)	**88**	88
	3,658,601	251,558

Notes:

(i) The capital reserve of the Group of RMB57,010,000 arose in June 2003 when the substantial shareholder and Executive Director, Mr. Zhang transferred 26.3% of his shares in Tianneng Battery to the key management personnel of the Group. The Group recognised the share-based payment expenses of approximately RMB57,010,000 on 15 June 2003 which represented the difference between the fair value of those shares of approximately RMB71,388,000 and the consideration received by Mr. Zhang from the key management personnel of approximately RMB14,378,000.

(ii) The increase of RMB4,194,000 was related to the acquisition of the remaining 30% interest in Anhui Zhongneng in 2013.

(iii) The capital reserve of the Group of RMB12,460,000 arose from the difference between the consideration paid for acquisitions of additional interests in subsidiaries from non-controlling shareholders who are associates of Mr. Zhang and the non-controlling interests' share of net assets of the subsidiaries at the date of the acquisition.

(iv) As set out in the Company's announcement dated 23 November 2015, the Group is considering and exploring the possibility of a possible spin-off and quotation of the shares of a subsidiary, Zhejiang Tianneng Energy, on the 全國中小企業股份轉讓系統 National Equities Exchange and Quotation System ("NEEQ", commonly known as the New Third Board 新三板) in the PRC (the "Proposed NEEQ Quotation"). A subscription agreement was entered into on 18 January 2016, pursuant to which a group comprising, among others, Mr. Zhang and other management and employees of the Group (the "Management Group") agreed to subscribe 40% of the enlarged total equity interests of Zhejiang Tianneng Energy at a total consideration of RMB114,241,000. The Group's interests in Zhejiang Tianneng Energy is accordingly reduced from 100% to 60% upon the completion of the subscription by the Management Group. Details of the subscription by the Management Group is set out in the Company's announcement dated 18 January 2016. The reduction of the Group's equity interests from 100% to 60% is treated as a deemed disposal. The changes in the Group's equity interests in Zhejiang Tianneng Energy do not result in the Group losing control over Zhejiang Tianneng Energy and are accordingly accounted for as equity transactions. The surplus of RMB64,600,000, representing the difference between the consideration of RMB114,241,000 and the amount of non-controlling interests approximately RMB49,641,000, is credited to the capital reserve. As set out in the Company's announcement dated 17 August 2016, having considered the recent capital market situation, Zhejiang Tianneng Energy and the Company have decided to postpone the application for the Proposed NEEQ Quotation to a later stage.

40. Reserves (Continued)

Capital reserve (Continued)

Notes: (Continued)

(v) As set out in the Company's announcement dated 10 August 2018, the equity transfer agreements were entered into, pursuant to which Tianneng Battery agrees to acquire additional 40% of the equity interest in a subsidiary, Zhejiang Tianneng Energy from the non-controlling shareholders, a group comprising, among others, Mr. Zhang and other management and employees of the Group, at considerations of approximately RMB74,864,000, RMB7,719,000 and RMB43,977,000, representing 24%, 2% and 14% of the equity interest, respectively. The Group's interests in Zhejiang Tianneng Energy is accordingly increased from 60% to 100% upon the completion of the transaction. Details of the transaction is set out in the Company's announcement dated 10 August 2018. The increase of the Group's equity interests in Zhejiang Tianneng Energy from 60% to 100% do not result in any changes of the Group's control over Zhejiang Tianneng Energy and is accordingly accounted for as equity transaction. The surplus of approximately RMB112,237,000, representing the difference between the consideration of RMB126,560,000 and the amount of non-controlling interests approximately RMB14,323,000, is debited to the capital reserve.

(vi) The changes in the Group's equity interests in Zhejiang Tianneng Energy do not result in the Group losing control over Zhejiang Tianneng Energy and are accordingly accounted for as equity transactions. The surplus of RMB131,620,000, representing the difference between the consideration of RMB276,900,000 and the amount of non-controlling interests approximately RMB145,280,000, is credited to the capital reserve.

(vii) The decrease of the Group's equity interests in Tianneng Battery of 1.67% do not result in any changes of the Group's control over Tianneng Battery and is accordingly accounted for as equity transaction. The surplus of approximately RMB93,823,000, representing the difference between the consideration of RMB183,040,000 and the amount of non-controlling interests approximately RMB89,217,000, is credited to the capital reserve.

(viii) On 18 January 2021, 天能電池集團股份有限公司 (Tianneng Battery Group Co., Ltd.*) ("Spin-off Company") listed on the Sci-Tech Board. The controlling interest of the Company in the Spin-off Company was reduced from approximately 98.33% to approximately 86.53%. The details please refer to the announcements dated on 4 January 2021 and 18 January 2021.

The effect on the owners of the Company during the reporting period is summarised as follows:

	RMB,000
Net consideration received from listing on the Sci-Tech Board	4,729,733
Recognition of NCI	(1,322,690)
Excess of consideration received recognised within capital reserves	3,407,043

(ix) The Group (i) transferred 21.67% equity interest of Henan Jingneng Energy Co., Ltd. to third party and (ii) acquired 20% equity interest of 浙江天暢供應鏈管理有限公司 and 24% equity interest of Tianneng Yinyue (Shanghai) New Energy Material Co., Ltd from third party during the year ended 31 December 2019.

Statutory surplus reserve fund/Discretionary surplus reserve fund

As stipulated by the relevant laws and regulations in the PRC, the Group's PRC subsidiaries are required to maintain two reserves, being a statutory surplus reserve fund and a discretionary surplus reserve fund which are non-distributable. Appropriations to such reserves are made out of profit after taxation of the statutory financial statements of the PRC subsidiaries while the amount and allocation basis are decided by their board of directors annually. Pursuant to the relevant laws and regulations in the PRC, it requires the appropriation to the statutory surplus reserve fund until the balance reaches 50% of the registered share capital. The statutory surplus reserve fund and the discretionary surplus reserve fund can be used to make up its prior year losses, if any, and can be applied in conversion into capital by means of capitalisation issue.

41. Share Option Schemes

The Company has a share option scheme (the "Scheme") for eligible directors of the Company, eligible employees of the Group and other selected participants. According to the terms of the Scheme, options granted must be taken up within 28 days from the date of grant, upon payment of HK$1.00. The options may be exercised in accordance with the terms of the Scheme at any time during the exercise period determined by the board of directors which shall in any event not be more than ten years from the date of grant. Share options are vested over a period up to a maximum of four years after the date of grant.

The total number of shares issued and which may fall to be issued upon exercise of the options granted pursuant to the Scheme to an eligible participant in any 12-month period shall not exceed 1% of the number of shares in issue unless approved by shareholders in a general meeting. The maximum number of shares in respect of which options may be granted under the Scheme shall not in aggregate exceed 10% of the shares in issue on the date on which dealings in the shares first commence on the Hong Kong Stock Exchange, i.e. a total of 100,000,000 shares (the "Option Limit"). Pursuant to an annual general meeting held on 16 May 2014, the Option Limit has been refreshed to 10% of the shares in issue on the date of the annual general meeting, i.e. a total of 111,190,800 shares.

All holders of options granted under the Scheme may only exercise their options in the following manner:

Maximum percentage of options exercisable	**Vesting period**
10% of the options	From the date of grant to the first anniversary of the date of grant
Additional 20% of the options	From the date of grant to the second anniversary of the date of grant
Additional 30% of the options	From the date of grant to the third anniversary of the date of grant
Additional 40% of the options	From the date of grant to the fourth anniversary of the date of grant

No share option was granted during the year ended 31 December 2021 and 2020.

41. Share Option Schemes (Continued)

The following tables disclosed movements of the Company's options granted under the Scheme during the year ended 31 December 2021 and 2020:

Option	Name of grantee	Date of grant	Exercisable period	Exercise price	Outstanding as at 1.1.2021	Granted during the year	Exercised during the year	Lapsed during the year	Forfeited during the year	Outstanding as at 31.12.2021
	Directors									
Option C	Huang Dongliang	16.6.2014	16.6.2016 – 15.6.2024	HK$2.9	20,000	–	–	–	–	20,000
Option C	Huang Dongliang	16.6.2014	16.6.2017 – 15.6.2024	HK$2.9	30,000	–	–	–	–	30,000
Option C	Huang Dongliang	16.6.2014	16.6.2018 – 15.6.2024	HK$2.9	40,000	–	–	–	–	40,000
	Employees									
Option C	Employees	16.6.2014	16.6.2015 – 15.6.2024	HK$2.9	157,500	–	–	–	–	157,500
Option C	Employees	16.6.2014	16.6.2016 – 15.6.2024	HK$2.9	7,814,000	–	–	–	(137,000)	7,677,000
Option C	Employees	16.6.2014	16.6.2017 – 15.6.2024	HK$2.9	11,721,000	–	–	–	(205,500)	11,515,500
Option C	Employees	16.6.2014	16.6.2018 – 15.6.2024	HK$2.9	15,628,000	–	–	–	(274,000)	15,354,000
					35,410,500	–	–	–	(616,500)	34,794,000
	Exercisable at the end of the year									**34,794,000**
	Weighted average exercise price				**HK$2.9**				**HK$2.9**	**HK$2.9**

Option	Name of grantee	Date of grant	Exercisable period	Exercise price	Outstanding as at 1.1.2020	Granted during the year	Exercised during the year	Lapsed during the year	Forfeited during the year	Outstanding as at 31.12.2020
	Directors									
Option C	Huang Dongliang	16.6.2014	16.6.2016 – 15.6.2024	HK$2.9	20,000	–	–	–	–	20,000
Option C	Huang Dongliang	16.6.2014	16.6.2017 – 15.6.2024	HK$2.9	30,000	–	–	–	–	30,000
Option C	Huang Dongliang	16.6.2014	16.6.2018 – 15.6.2024	HK$2.9	40,000	–	–	–	–	40,000
	Employees									
Option C	Employees	16.6.2014	16.6.2015 – 15.6.2024	HK$2.9	157,500	–	–	–	–	157,500
Option C	Employees	16.6.2014	16.6.2016 – 15.6.2024	HK$2.9	8,202,000	–	–	–	(388,000)	7,814,000
Option C	Employees	16.6.2014	16.6.2017 – 15.6.2024	HK$2.9	12,303,000	–	–	–	(582,000)	11,721,000
Option C	Employees	16.6.2014	16.6.2018 – 15.6.2024	HK$2.9	16,404,000	–	–	–	(776,000)	15,628,000
Option B	Employees	22.11.2010	22.11.2011 – 21.11.2020	HK$3.18	68,000	–	–	(68,000)	–	–
Option B	Employees	22.11.2010	22.11.2012 – 21.11.2020	HK$3.18	136,000	–	–	(136,000)	–	–
Option B	Employees	22.11.2010	22.11.2013 – 21.11.2020	HK$3.18	204,000	–	–	(204,000)	–	–
Option B	Employees	22.11.2010	22.11.2014 – 21.11.2020	HK$3.18	272,000	–	–	(272,000)	–	–
					37,836,500	–	–	(680,000)	(1,746,000)	35,410,500
	Exercisable at the end of the year									35,410,500
	Weighted average exercise price				HK$2.9			HK$3.18	HK$2.9	HK$2.9

41. Share Option Schemes (Continued)

At 31 December 2021, the total number of shares in respect of which options under the Scheme had been granted and remained outstanding was 34,794,000 (2020: 35,410,500), representing 3.09% (2020: 3.14%) of the shares of the Company in issue at that date. The options outstanding at the end of year have a weight average remaining contractual life is 2.5 (2020: 3.5) years.

No option was exercised during the year ended 31 December 2021 and 2020.

During the year ended 31 December 2020 and 2021, no expenses was recognised in relation to share options.

The fair value of the share options was determined at the date of grant using the Binomial option pricing model (the "Binomial Model") with the following inputs and based on the respective vesting period of the share options:

	Option C **16.6.2014**
Stock price as at grant date	HK$2.89
Exercise price	HK$2.9
Expected volatility	55%
Expected life of options	10 years
Risk free rate	2.06%
Expected dividend yield	4.26%
Sub-optimal exercise factor for directors/senior management/employees	3.5/3.5/3.5

The Binomial Model has been used to estimate the fair value of the options. The variables and assumptions used in computing the fair value of the share options are based on the directors' best estimate. Expected volatility was determined by using the historical volatility of the Company's share prices over the previous four years. Changes in variables and assumptions may result in changes in the fair value of the options.

The total estimated fair value of the share options C granted on that date was HK$70,620,000 (equivalent to approximately RMB56,065,000).

Share award scheme of a subsidiary of the Company

Pursuant to the shareholders' resolution approved on 23 May 2019, Tianneng Battery adopted a share award scheme for eligible senior management and eligible employees of Tianneng Battery and its subsidiaries (the "Selected Employee") (the "Share Award Scheme"). The objective of the Share Award Scheme is to recognise the contribution by the Selected Employee and to provide them with incentives in order to retain them for the continuing operation and development of Tianneng Battery and its subsidiaries.

According to the Share Award Scheme, 41,200,000 shares of Tianneng Battery were granted to certain limited partnerships (the "Limited Partnership"), which were legally owned by Zhejiang Tianneng Commercial Management Co., Ltd. ("Tianneng Commercial"), a wholly owned subsidiary of the Group, and the Selected Employee and for the purpose of facilitating the purchasing, holding and selling of shares of Tianneng Battery for the benefit of the Selected Employee. The shares have been subscribed at a price of RMB7.69 per share.

These shares are restricted for sale until the fourth anniversary date after the initial public offering of Tianneng Battery in A-share market (the "Qualified IPO").

Upon the expiry of restriction of the awarded shares, the Limited Partnership shall dispose the awarded shares at the prevailing market price and transfer the proceeds in relation to the awarded shares to the respective Selected Employee.

If the Qualified IPO does not incur by 31 December 2022, the Selected Employee have the right to ask Tianneng Commercial to repurchase back the awarded shares at a share price of RMB7.69 plus interest at 8% per annum. If the Selected Employee resigned, they are required to sell back the awarded shares at a share price of RMB7.69 plus interest at 115% of the benchmark lending rate of peer loan issued by the People's Bank of China.

41. Share Option Schemes (Continued)

Share award scheme of a subsidiary of the Company (Continued)

The fair values of restricted shares granted to the Selected Employee amounted to approximately RMB178,767,000. For the year ended 31 December 2021, an expense of approximately RMB13,316,000 (2020: 13,084,000) was recognised by the Group in relation to restricted shares granted by Tianneng Battery under the Share Award Scheme.

As at 31 December 2021, financial liabilities of approximately RMB117,010,000 (2020: RMB116,952,000) was recognised according to the repurchase consideration to be paid under Share Award Scheme if the granted shares become unvested.

42. Capital Commitments

The Group's capital commitments at the end of the reporting period are as follows:

	2021 **RMB'000**	2020 RMB'000
Property, plant and equipment – Contracted but not provided for	**2,043,330**	1,337,707

43. Pledge of Assets

At the end of the reporting period, the Group has pledged the following assets to secure the general banking facilities granted to the Group.

	2021 **RMB'000**	2020 RMB'000
Bank deposits	**2,943,087**	1,303,060
Financial assets at FVTPL – Structured bank deposits	**392,682**	69,600
Debt instruments at FVTOCI	**450,913**	1,294,686
Property, plant and equipment	**429,023**	116,342
Right-of-use assets	**99,749**	–
	4,315,454	2,783,688

44. Retirement Benefit Schemes

The Group's full-time employees in the PRC are covered by a government-sponsored defined contribution pension scheme, and are entitled to a monthly penson from their retirment dates. The PRC Government is responsible for the pension liability to these retired empolyees. The Group's is required to make annual contributions to the retirement plan at an average rate of 20% of employees' salaries, which are charged as an expenses when the employees have rendered services entitling them to the contributions and the contributions are due.

The Group operates a Mandatory Provident Fund scheme for all qualifying employees in Hong Kong. The assets of the Scheme are held separately from those of the Group in funds under the control of the trustee. The Group basically contributes 5% of the relevant payroll costs to the scheme.

As at 31 December 2021 and 2020, all of the contributions due in respect of the year had been paid over the plans.

45. Reconciliation of Liabilities Arising from Financing Activities

	Borrowings RMB'000	Long-term loan notes RMB'000	Lease liabilities RMB'000	Total RMB'000
At 1 January 2020	1,513,161	398,853	22,573	1,934,587
Financing cash flows	105,194	(400,000)	(9,747)	(304,533)
Non-cash changes				
– Addition	–	–	10,779	10,779
– Acquisition of subsidiaries	13,000	–	–	13,000
– Amortisation of unsettled financial charges	6,685	1,147	1,358	9,190
At 31 December 2020 and 1 January 2021	1,638,040	–	24,963	1,663,003
Financing cash flows	2,642,709	–	(11,843)	2,630,866
Non-cash changes				
– Addition	–	–	7,912	7,912
– Amortisation of unsettled financial charges	2,772	–	1,332	4,104
At 31 December 2021	4,283,521	–	22,364	4,305,885

46. Related Party Transactions

(a) Related party transactions

During the year, the Group had the following transactions with its related companies:

		2021 **RMB'000**	2020 RMB'000
Changtong Technology	Purchase of materials	**515,827**	263,338
Changtong Technology	Sales of materials	**476**	1,204
遠鴻機械	Purchase of materials	**3,360**	1,577
Changxing Jin Ling Hotel (note i)	Hotel expenses	**1,140**	832
Haoyang Property Management	Property fees	**7,647**	–
Xin Xin Packaging	Purchase of consumables	**2,583**	2,035
Wanyang Group	Purchase of materials	**1,041,520**	1,136,097
Wanyang Group	Sales of materials	**219,153**	165,588
Wanyang Group	Rental paid	**2,257**	2,069

Note:

(i) Changxing Jin Ling Hotel (長興金陵大酒店) is controlled by Mr. Zhang.

(b) Details of the remuneration of directors and other members of key management during the year are set out in note 15.

47. Statement of Financial Position and Reserves of the Company

	2021 RMB'000	2020 RMB'000
Non-current assets		
Property, plant and equipment	**23**	23
Investments in and amounts due from subsidiaries	**1,038,091**	1,047,707
	1,038,114	1,047,730
Current assets		
Other receivables	**129**	143
Bank balances and cash	**8,378**	10,630
	8,507	10,773
Current liabilities		
Other payables	**11,539**	37,927
Borrowings	**–**	94,758
Amounts due to subsidiaries	**134,051**	51,976
	145,590	184,661
Net current liabilities	**(137,083)**	(173,888)
Net assets	**901,031**	873,842
Capital and reserves		
Share capital	**109,850**	109,850
Reserves	**791,181**	763,992
Total equity	**901,031**	873,842

	Share premium RMB'000	**Share options reserve** RMB'000	**Accumulated profit (losses)** RMB'000	**Total** RMB'000
At 1 January 2020	783,403	39,893	1,234	824,530
Profit for the year	–	–	348,559	348,559
Share repurchase	(4,836)	–	–	(4,836)
Forfeiture of share options	–	(2,909)	2,909	–
Dividend recognised as distribution	–	–	(404,261)	(404,261)
At 31 December 2020 and 1 January 2021	778,567	36,984	(51,559)	763,992
Profit for the year	–	–	401,999	401,999
Forfeiture of share options	–	(1,629)	1,629	–
Dividend recognised as distribution	–	–	(374,810)	(374,810)
At 31 December 2021	778,567	35,355	(22,741)	791,181

48. Contingent Liabilities

At the end of the reporting period, the Group and the Company did not have any significant contingent liabilities (2020: Nil).

49. Particulars of Principal Subsidiaries of the Company

Name of subsidiary	Place/Country of incorporation/ establishment and operations	Issued and fully paid share/ registered capital	Effective proportion of nominal value of issued share/ registered capital held by the Company		Principal activities
			2021	2020	
Tianneng International Investment Holdings Limited	British Virgin Islands/ Hong Kong 15 November 2004	US$1	**100%**	100%	Investment holding
浙江省長興天能電源有限公司 Zhejiang Changxing Tianneng Power Supply Co., Ltd.	PRC – Limited liability company 11 March 1998	Registered capital – RMB108,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries
天能電池集團有限公司 Tianneng Battery	PRC – Limited liability company 13 March 2003	Registered capital – RMB972,100,000	**86%**	97%	Investment holding, research and development, manufacture and sales of lead-acid batteries and battery related accessories
浙江天能能源科技股份有限公司 Zhejiang Tianneng Energy	PRC – Limited liability company 1 July 2004	Registered capital – RMB226,666,000	**60%**	60%	Manufacture and sales of lithium-ion batteries
長興天能汽車運輸有限公司 Changxing Tianneng Vehicle Transport Co., Ltd.	PRC – Limited liability company 30 May 2005	Registered capital – RMB450,000	**100%**	100%	Provision of transportation service to group companies
天能電池(蕪湖)有限公司 Tianneng Battery Wuhu	PRC – Limited liability company 21 October 2005	Registered capital – RMB230,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries
浙江天能電池(江蘇)有限公司 Zhejiang Tianneng Battery (Jiangsu) Co., Ltd.	PRC – Limited liability company 9 May 2005	Registered capital – RMB200,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries
浙江天能電池(江蘇)新能源有限公司 Zhejiang Tianneng Battery (Jiangsu) New Energy Co., Ltd.	PRC – Limited liability company 8 January 2008	Registered capital – RMB120,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries
浙江天能動力能源有限公司 Zhejiang Tianneng Power	PRC – Limited liability company 2 July 2009	Registered capital – RMB300,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries
浙江天能電源材料有限公司 Zhejiang Tianneng Power Supply Material Co., Ltd.	PRC – Limited liability company 2 July 2009	Registered capital – RMB300,000,000	**100%**	100%	Research and development of recycled batteries
浙江天能物資貿易有限公司 Zhejiang Tianneng Material Trading Co., Ltd.	PRC – Limited liability company 25 March 2009	Registered capital – RMB80,000,000	**100%**	100%	Sales of metal materials
天能電池集團(安徽)有限公司 Tianneng Battery Anhui	PRC – Limited liability company 4 November 2010	Registered capital – RMB200,000,000	**100%**	100%	Sales of metal materials

49. Particulars of Principal Subsidiaries of the Company (Continued)

Name of subsidiary	Place/Country of incorporation/ establishment and operations	Issued and fully paid share/ registered capital	Effective proportion of nominal value of issued share/ registered capital held by the Company 2021	2020	Principal activities
長興新天物資經營有限公司 Changxing Xintian Material Trading Co., Ltd.	PRC – Limited liability company 27 July 2009	Registered capital – RMB20,000,000	**100%**	100%	Sales of metal materials
濟源市萬洋綠色能源有限公司 Jiyuan Wanyang	PRC – Limited liability company 27 October 2010	Registered capital – RMB102,160,000	**51%**	51%	Manufacture and sales of lead-acid batteries
安徽中能電源有限公司 Anhui Zhongneng	PRC – Limited liability company 17 April 2008	Registered capital – RMB100,000,000	**100%**	100%	Manufacture and sale of electrode plates
浙江赫克力能源有限公司 Zhejiang Hercules Energy Co., Ltd.	PRC – Limited liability company 10 November 2009	Registered capital – RMB60,000,000	**100%**	100%	Manufacture and sales of lead-acid batteries and re-cycled batteries
河南晶能電源有限公司 Henan Jingneng Energy Co., Ltd.	PRC – Limited liability company 13 March 2009	Registered capital – RMB45,000,000	**60%**	60%	Manufacture and sales of lead-acid batteries
安徽轟達電源有限公司 Anhui Hongda	PRC – Limited liability company 26 March 2010	Registered capital – RMB50,000,000	**100%**	100%	Manufacture and sale of electrode plates
安徽天暢金屬材料有限公司 Anhui Tianchang Metal Material Supply Co., Ltd.	PRC – Limited liability company 14 May 2018	Registered capital – RMB200,000,000	**51%**	51%	Research and development of recycled batteries
天能銀玥(上海)新能源材料有限公司 Tianneng Yinyue (Shanghai) New Energy Material Co., Ltd	PRC – Limited liability company 23 May 2016	Registered capital – RMB60,000,000	**75%**	75%	Trading of new energy materials
天能金玥(上海)新能源材料有限公司	PRC – Limited liability company 28 November 2016	Registered capital – RMB100,000,000	**100%**	100%	Trading of new energy materials
浙江天暢供應鏈管理有限公司	PRC – Limited liability company 26 April 2018	Registered capital – RMB100,000,000	**90%**	90%	Provision of transportation service to group companies
浙江天贏供應鏈管理有限公司	PRC – Limited liability company 5 February 2020	Registered capital – RMB100,000,000	**100%**	100%	Trading of new energy materials

49. Particulars of Principal Subsidiaries of the Company (Continued)

Name of subsidiary	Place/Country of incorporation/ establishment and operations	Issued and fully paid share/ registered capital	Effective proportion of nominal value of issued share/ registered capital held by the Company		Principal activities
			2021	2020	
天能金玥(天津)有限公司	PRC – Limited liability company 9 May 2020	Registered capital – RMB60,000,000	**100%**	100%	Trading of new energy materials
天能融資租賃(天津)有限公司	PRC – Limited liability company 17 January 2020	Registered capital – RMB170,000,000	**75%**	75%	Provision of finance lease
天能炭素(江蘇) 有限公司	PRC – Limited liability company 27 March 2020	Registered capital – RMB71,430,000	**70%**	70%	Recycling industry
山東中清環保技術有限公司	PRC – Limited liability company 20 July 2018	Registered capital – RMB200,000,000	**80%**	80%	Recycling industry

The above table lists the subsidiaries of the Group which, in the opinion of the Company's directors, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the Company's directors, result in particulars of excessive length.

50. Approval of Consolidated Financial Statements

The consolidated financial statements were approved and authorised for issue by the Board of Directors on 30 March 2022.