# 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

# 2022
## 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. Zhang Yong
Mr. Xia Yongyao *(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. Zhang Yong
Mr. Xia Yongyao *(Resigned as a member of the Audit Committee with effect from 15 March 2022)*
Mr. Xiao Gang *(Appointed as a member of the Audit Committee with effect from 15 March 2022)*

## Remuneration Committee Members

Mr. Xia Yongyao *(Chairman) (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)*
Mr. Huang Dongliang
Mr. Zhang Aogen

## Nomination Committee Members

Dr. Zhang Tianren *(Chairman)*
Mr. Huang Dongliang
Mr. Xia Yongyao *(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

Deloitte Touche Tohmatsu
Registered Public Interest Entity Auditors
35th Floor, One Pacific Place,
88 Queensway Hong Kong
(Appointed with effect from 8 July 2022)

ZHONGHUI ANDA CPA Limited
23/F Tower 2, Enterprise Square Five,
38 Wang Chiu Road, Kowloon Bay,
Kowloon, Hong Kong
(Resigned with effect from 5 July 2022)

## Statutory Address

Cricket Square
Hutchins Drive
P.O. Box 2681
Grand Cayman
KY1-1111
Cayman Islands

## Principal Place of Business in Hong Kong

Suite 3202, 32 Floor,
Central Plaza
18 Harbour Road Wanchai,
Hong Kong

## Principal Share Registrar

Conyers Trust Company (Cayman) Limited
Cricket Square, Hutchins Drive,
P.O. Box 2681,
Grand Cayman
KY1-1111,
Cayman Islands

## Hong Kong Branch Share Registrar and Transfer Office

17/F, Far East Finance Centre
16 Harcourt Road
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

# FINANCIAL HIGHLIGHTS

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

## Consolidated Statement of Comprehensive Income (Note 1)

| | **2022** | 2021 | 2020 | 2019 | 2018 |
|---|---|---|---|---|---|
| Revenue | **74,598,641** | 85,615,917 | 53,525,039 | 34,750,848 | 26,903,901 |
| Profit before taxation | **2,738,841** | 1,836,942 | 2,949,728 | 2,126,041 | 1,530,650 |
| Taxation | **(659,163)** | (285,730) | (445,153) | (400,091) | (295,474) |
| Profit for the year | **2,079,678** | 1,551,212 | 2,504,575 | 1,725,950 | 1,235,176 |
| Profit attributable to non-controlling interests | **283,293** | 251,260 | 27,654 | 44,123 | 46,898 |
| Profit attributable to the owners of the Company | **1,796,385** | 1,299,952 | 2,476,921 | 1,681,827 | 1,188,278 |
| Earnings per share (RMB/share) | | | | | |
| – Basic | **1.60** | 1.15 | 2.20 | 1.49 | 1.05 |
| – Diluted | **1.57** | 1.13 | 2.15 | 1.47 | 1.03 |

## Consolidated Statement of Financial Position (Note 2)

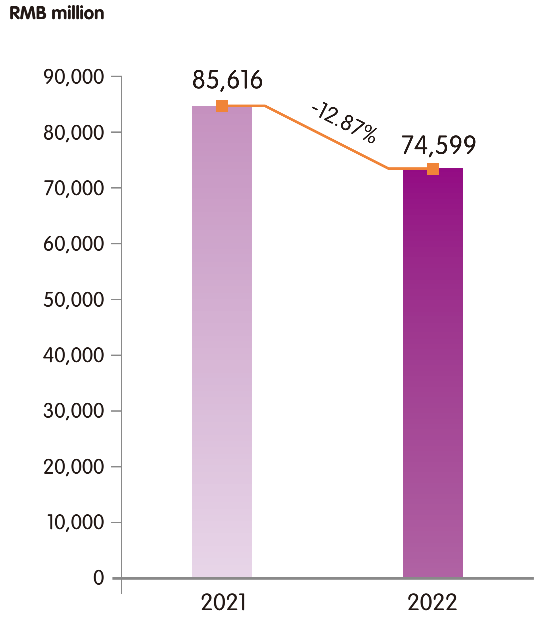
| | **Year ended 31 December** | | | | |
|---|---|---|---|---|---|
| | **2022** | 2021 | 2020 | 2019 | 2018 |
| Total assets | **40,135,923** | 32,738,944 | 23,200,435 | 19,130,327 | 16,856,292 |
| Total liabilities | **22,969,749** | 17,362,012 | 13,741,146 | 11,843,811 | 11,467,094 |
| Net assets/Total equity | **17,166,174** | 15,376,932 | 9,459,289 | 7,286,516 | 5,389,198 |

Notes:

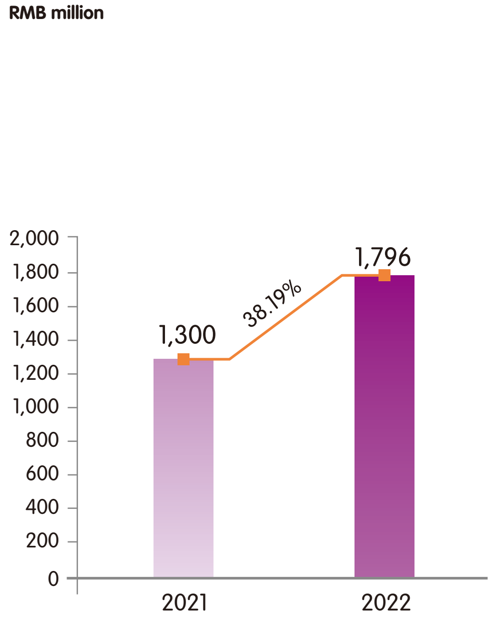
1. The results for the years ended 31 December 2018 and 2019 are set out on page 56 of the Annual Report 2019 of the Company. The results for the year ended 31 December 2020 is set out on page 62 of the Annual Report 2020 of the Company. The results for the year ended 31 December 2021 is set out on page 72 of the Annual Report 2021 of the Company. The results for the year ended 31 December 2022 are set out on page 73 of the Annual Report 2022 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 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. The consolidated statement of financial position as at 31 December 2022 are set out on page 74 of the Annual Report 2022 of the Company. All such information is extracted from the financial statements prepared under HKFRSs.

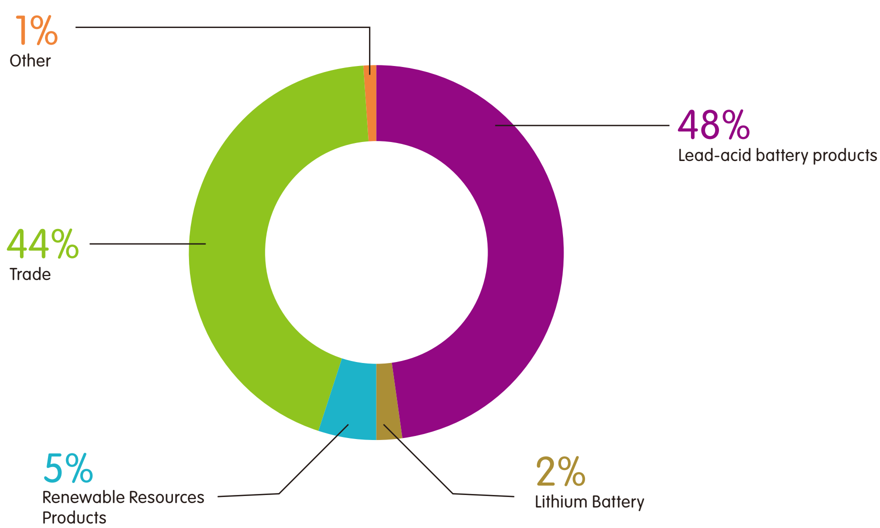
## SALES TURNOVER




## PROFIT ATTRIBUTABLE TO SHAREHOLDERS




## SEGMENT TURNOVER




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

# Focus on Industry Upgrade, Emphasize on Growth Driven by Innovation

Dear shareholders,

On behalf of the board of directors of Tianneng Power International Limited ("**Tianneng**" or the "**Company**", together with its subsidiaries, collectively referred to as the "**Group**"), I would like to present the annual report of the Company for the year ended 31 December 2022 (the "**Year**") to all shareholders.

In 2022, facing the challenges of numerous unexpected factors such as the accelerated evolution of global landscape, resurgence of the COVID-19 pandemic within the PRC and increased economic downward pressure, the Group actively responded by maintaining its strategic focus, embracing challenges and striving for advancement, adhering to the overarching principle of "Strengthening fundamental business; Promoting growing business; Specializing new business". The Group coordinated the pandemic prevention and control, as well as its production and operation, to vigorously promote industrial upgrade and strategic transformation, achieve growth of operating performance and realize continuous improvement of its development trend.

## 2022: Optimize Strategic Arrangement, Emphasize on Quality Improvement and Efficiency Enhancement

"A pine tree can stand firmly on a mountain because its roots have been deeply planted in the cracks of the rocks". Tianneng Group has always insisted on seeking progress while maintaining stability, and sought development around its main businesses. It has developed into a leading company in the sector of new-energy battery industry with the spirit of a pioneer and a striver. We continued to deepen the development of lead-acid batteries, vigorously promote the industry to move towards mid-to-high end, seek efficiency for technological advancement and high-quality development, and achieve continuous improvement in profitability. In recent years, facing the development trend among the new energy battery industry, we have actively devised strategies, ramped up resource investment, put more effort into R&D, laid out a diverse technical route of "lead-lithium-hydrogen-sodium" for batteries. We were fully committed to providing customers with systematic and diversified new energy solutions.

As the fundamental business of the Group, the lead-acid battery business has continued to develop steadily, so as its market share. In 2022, the Group has constructed a full-on ecological system for the lead-acid battery industry and further consolidated its blueprint with steady progress for its principal business. Coupling with market changes, we set up a mechanism with the responsible person for each part of the industrial chain, recognized the purpose of directing the industrial ecology, and connected online and offline segments, to maintain the steady progress for our principal business. Through technology innovation and quality improvement of the management system, the core performance of products has been significantly improved. The R&D of high-end products such as nuclear-grade batteries and pure gel batteries fulfilled the potential demand of the market to a great extent. Meanwhile, the industrial chain was fully coordinated from manufacturing to recycling and a clearer boundary of business segments was established, which fueled the efficient development of new projects, thereby laying a solid foundation for strengthening the Group's competitive advantages and status of its core business.

The Group upheld the dual technology route of lead-acid batteries and lithium-ion ("**Li-ion**") batteries, gave full play to the advantages of lead-lithium synergy, and provided diversified system solutions to clients in multiple application fields such as new energy motive batteries, and energy storage systems ("**ESS**"). During the Year, while doing a good job in the domestic energy storage market, the Group actively integrated with national strategies and plans such as the West-East Electricity Transmission Project and the construction of virtual power plants, and commenced strategic cooperations with top domestic enterprises, such as State Grid Corporation of China ("**SGCC**"), State Power Investment Corporation Limited ("**SPIC**"), thus greatly enhancing our development potential and corporate influence. On the other hand, the Group has accelerated the expansion of the overseas ESS market. For example, we constructed "the first overseas energy storage industrial chain hub" in Vietnam, and completed a series of ESS demonstration projects such as the photovoltaic energy storage off-grid project in Africa.

In 2022, the Group fully optimized the development strategies with stronger competitive advantages in new energy business. During the Year, the Group accelerated the upgrade of technology and new product category of new energy batteries, the advantages of the lithium-ion battery business in the subdivision fields were further enhanced, and the sodium battery business completed its first phase in R&D and industry development. In the field of hydrogen fuel cells, we have mastered the critical core technologies regarding the stack and engine system, which can provide customized fuel cells system solutions based on particular application scenarios of our customers and be widely applied in a broad spectrum such as logistic transportation, ESS and construction machinery.

The Group prided itself on building the first smart factory in the industry, which marked a crucial step in industry innovation and transformation. During the Year, the Group implemented 68 digitalized innovation projects, built the first whole industry chain smart factory in the industry, improved production, quality, and supply chain, as well as launched a new digital marketing ecosystem, with its digital marketing projects having been promoted to 17 provinces, reaching more than 23,000 stores. The Group also implemented online purchase procedures, with significant improvement in efficiency. The Group won awards such as China Light Industry Digital Transformation Advanced Unit (中國輕工業數字化轉型先進單位), Provincial Industrial Internet Platform (省級工業互聯網平台), smart factory, and "Future Factory" pilot enterprise.

While continuously strengthening its leading position in China, the Group further accelerated its international strategies. The Group has always actively respond to the PRC's "Belt and Road Initiative", constantly promoted the globalization strategy, and sped up the "Go Abroad" steps. In 2022, the first overseas manufacturing center was set up in Vietnam, which was a milestone for Tianneng's globalization. In the future, the Group will adopt a more open and integrated approach to establish more extensive, precise and sustainable energy cooperation globally, as well as gather efforts to establish a global energy community.

## Profit Attributable to Shareholders and Dividend during the Year

For the year ended 31 December 2022, the Company's consolidated turnover was approximately RMB74,599 million, representing a year-on-year decrease of 12.87% as compared to that of the previous year, of which the turnover of manufacturing business was RMB41,971 million, representing an increase of approximately 10.68%. as compared to that of the previous year. Profit attributable to owners of the Company was approximately RMB1,796 million, representing an increase of 38.19% as compared to that of the previous year. Basic earnings per share were approximately RMB1.60. Tianneng Power proposed to declare a cash dividend of HK$40 cents per ordinary share (the "**Share(s)**") held by its shareholders (the "**Shareholders**"). The proposal shall be subject to consideration and approval by the Shareholders at the annual general meeting to be held on 8 June 2023.

## 2023: Maintain Stable Growth, Facilitate High Quality Development through Innovation

As a famous Chinese saying goes, "This will not be an easy task, but where there is a will, there is a way". Tianneng has laid a strong foundation for its growth and development over the past year and is well-positioned for future business opportunities whenever they arise. Looking forward, the Group will precisely seize China's "Dual Carbon" opportunities and the overall positive trend of the economy, focus on the new energy industry, promote industrial upgrade and structural transformation, strengthen its leading role in terms of technological innovation, and comprehensively promote a new round of high-quality development. We will maintain the leading position of our lead-acid batteries business by creating an absolute competitive advantage, and make an effort in R&D investment, product implementation and model innovation altogether to accelerate the contribution of strategic businesses. The Group will also construct a new development pattern with a balanced business structure and efforts made in several areas to maintain a continuous growth trend.

In terms of technology innovation, in 2023, the Group will continue to increase its investment in R&D and optimize the process of building R&D systems and mechanisms, accelerate R&D in technological areas such as ESS cells, PACK and ESS integration, enhance the standard of core technologies such as hydrogen fuel cell stacks and engine systems to actively promote model innovation and commercialization, devise strategy for the development of new battery technologies such as solid-state batteries, sodium-ion batteries, zinc-ion batteries and BMS systems, and promote the recycling of materials such as lead and lithium, swiftly materialize the industrialization of crucial materials including anode and cathode materials, diaphragms and electrolytes, and focus on fostering more new growth pillars with strong potentials and good market prospect to equip itself with the technologies needed for future development.

In terms of market development, in 2023, the Group will promote in-depth cooperation with automobile enterprises. The Group will strive to capture new markets, create Tianneng's unique ESS standardized products and integrated systems, deepen strategic cooperation with SPIC, SGCC and others, step ahead to capture a larger share in the ESS market, and at the same time promote internationalization, speed up the construction of Vietnam's manufacturing center and raise efforts in expanding overseas market.

In terms of project promotion, in 2023, the Group will put efforts in promoting various strategy-oriented projects, new investment projects and technology transformation projects, and accelerate the efficiency of projects under construction. Particularly, in terms of resource recycling and urban mining projects, the Group will further enhance its control over resources and discourse power.

In terms of intelligent upgrade, in 2023, the Group will focus on "product + service", allowing intelligentization to infiltrate into each business segment of "production, supply, sales, research and service", and link up key processes, thus forming a new layout of industry intelligentization that integrates smart manufacturing, digital marketing, smart supply chain, sales and recyling. It will also consolidate the experience of promoting its first smart factory and strengthen the competitive advantages of production and cost. The Group will form a nationwide storage network, further improve the Group's intelligentization strategy roadmap, and accelerate the overall digitalization of the Group's management as well as shared services.

"Time and tide wait for no man." The Group will fully seize China's "Dual Carbon" opportunities and the development trend of the new energy industry. With strengths and courage to strive for breakthroughs, and with unwavering faith and enthusiasm, the Group will focus on industry upgrade and growth driven by innovation, thereby striving towards the grand goal of a modernized new Tianneng and creating a better future.

## Appreciation

Lastly, on behalf of the Group, I would like to thank all our customers for their continuous support and kindness. I would also like to express my appreciation to all our business partners, investors, and shareholders for their trust, and to extend my sincere gratitude to all staff for their professionalism, hard work and dedication over the Year. The Group will forge ahead, keep pace with the latest development seize industry opportunities, leverage our own advantages and strive to promote long-term sustainable development of the Group, thereby enhancing value for our Shareholders.

**Zhang Tianren**
*Chairman*

Hong Kong, 24 March 2023

# MANAGEMENT DISCUSSION AND ANALYSIS

## COMPANY PROFILE

Tianneng Power International Limited ("**Tianneng**" or the "**Company**", together with its subsidiaries, collectively referred to as the "**Group**"), founded in 1986, is a leading company in the new energy battery industry and electric two-wheelers battery industry in the People's Republic of China ("**China**" or the "**PRC**"). 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, it has become a new energy group focusing on the motive batteries for light electric vehicles, ESS batteries, the recycling industry and integrating the research and development ("**R&D**"), production and sale of various types of batteries (including motive batteries, automotive batteries, motive batteries for special industrial vehicles), green and intelligent manufacturing, and smart logistics platforms.

## OPERATION REVIEW

In the year ended 31 December 2022 (the "**Year**"), Tianneng maintained its development strategies of "intelligentisation, platform-building, globalisation", promoted green development through scientific and technological innovation, and focused on the new-generation battery technologies such as lead-acid batteries, Li-ion batteries, fuel cells and sodium-ion batteries, as well as the used battery recycling business. It has been determined to implement the industrial technology development strategy, adjust the business strategy of each business segment in a scientific manner and deploy multiple technologies in a proactive manner, to form a diversified business development model.

As the world's leading enterprise, Tianneng has strengthened its lead-acid batteries segment in a down-to-earth manner, enjoying absolute and dominant advantages in the Chinese market. In respect of R&D, Tianneng sticks to technological breakthroughs and product innovation, continues to consolidate market advantages, and takes the lead in mastering new material technologies such as graphene composites and multi-compound rare earth alloys. In respect of production and manufacturing, Tianneng strives to promote the process of digitalisation by establishing a high efficiency production mode with an intelligent system as the carrier in an order-oriented manner, which leads to success in building a green intelligent manufacturing industry chain. During the Year, Tianneng dug deep into users' pain points, realised what customers need, sorted out the product matrix, and entered the field of high-capacity batteries at one stroke. Its brand strategy achieved new breakthroughs by exploring different directions of marketing networks and diversifying development to broaden prospects.

While maintaining the world's leading position in the field of lead-acid batteries, Tianneng endeavoured to make arrangements for its Li-ion batteries business so as to create a second growth curve for its future development. The Group adhered to the dual technologies of lead-acid batteries and lithium-ion batteries in order to exhibit the synergy by leveraging their advantages and to upgrade motive batteries and ESS batteries on a continuous basis. It also promoted the sustainable development of new energy for travel and the new energy storage industry. In respect of motive Li-ion batteries, regular upgrade of technology and products, orderly layout of production capacity and production line, together with green logistics to improve the ecological environment, ushered an essential era with development opportunities during the Year. In respect of ESS, the Group has developed a variety of energy storage container products such as air-cooled and liquid-cooled containers after years of development. The Group launched pilot demonstrations of ESS. The Li-ion batteries business has made extensive breakthroughs in new markets and continued to enhance its advantages and competitiveness in various market segments.

As the paragon of the new energy industry, the Group has also deployed new battery technologies including fuel cells, sodium-ion batteries, and solid-state batteries. During the Year, the Group expanded its talent pool, utilised the resources from colleges, accelerated the breakthrough of core technologies, and strived to seek strategic cooperation in the industry, so as to facilitate commercial expansion and scenario application, providing global customers with a wide range of premium battery products and system solutions.

In respect of the recycling business segment, the Group, equipped with comprehensive recycling system of waste lead-acid batteries and Li-ion batteries, produces products such as lead ingot, lithium carbonate, cobalt sulfate, nickel sulfate and manganese sulfate. In 2022, the Group strived to improve the standards of operation management and equipment technology, accelerated the development plan for recycling Li-ion batteries, established a powerful recycling network and improved its recycling technology to gain the unique competitiveness of the Group.

As a major strategic segment of the Group, Tianneng accelerates the globalisation process, and actively expands its overseas business. The Group has established subsidiaries in Hong Kong and Nigeria, and overseas offices in Vietnam, India and the Netherlands, which serve as the platform for the expansion and integration of the overseas business of the Group, so as to undertake the business of the Group including lead-acid batteries and Li-ion batteries. In the future, with the release of demand from the overseas new energy battery market, the Group will continue to increase its penetration rate in major overseas regions and enhance its global sales capacity.

## INDUSTRY DEVELOPMENT AND OPERATION

In 2022, the Group's manufacturing business contributed revenue of approximately RMB41,971 million, representing an increase of 10.68% as compared to the same period of last year. The industry development and operation of each main business are as follows:

### (1) High-end eco-friendly batteries

During the reporting period, high-end eco-friendly batteries recorded an operating income of approximately RMB35,747 million, representing an increase of approximately 12.34% as compared with the same period of last year. High-end eco-friendly batteries are a series of sealed maintenance-free lead-acid battery products created by Tianneng relying on its R&D and technology innovations, including motive batteries, automotive batteries and ESS products.

#### Motive lead-acid batteries

During the reporting period, the Group's motive lead-acid batteries recorded an operating income of RMB35,109 million, representing a year-on-year increase of approximately 12.31%.

As a powerful source of motivation, lead-acid batteries are mainly used in light electric vehicles, special electric vehicles and other vehicles. Lead-acid batteries featured with high security and cost-effective performance are still the major batteries in the light electric vehicle market. According to data published by EVTank, China produced 54.43 million two-wheeled electric vehicles in 2021, recording a year-on-year increase of 12.6%. As a leading enterprise of lead-acid batteries, the Group has invested and built factories in locations such as Shuyang County, Jiangsu Province, Jieshou City, Anhui Province, and Puyang City, Henan Province since 2005. During the reporting period, the Group completed and put into operation the first phase of the high-performance eco-friendly motive battery project with an annual output of 20 GWh at the production base in Maanshan City, Anhui Province.

In 2022, the Group strived to improve its ancillary product matrix and made major breakthroughs in the R&D of products in the field of eco-friendly travel, and successively launched a series of products such as Captain Graphene (石墨烯领跑者), Overrun Graphene (超跑石墨烯), T3 New Black Gold Graphene (T3真黑金石墨烯) and the 3rd generation of Long Mileage King emphasised with battery life and durability, and continued to contribute to the industry upgrade and innovation. Tianju (天聚) Battery, a brand for three-wheeled electric vehicles was also launched to meet the vast needs of urban and rural consumers. In the future, Tianneng will accelerate the transformation and upgrade to contribute to the high-quality development of the local economy.

Under the influence arising from consumption pattern transformation together with the New National Standard Policy, the concentration of China's two-wheelers' market has been further increased, the integration of original equipment manufactures ("**OEMs**") has been accelerated, and the industry has shifted from high-speed development to high-quality development. The Group has collaborated with leading OEMs including Aima Technology Co., Ltd. (愛瑪科技集團股份有限公司), Yadea Group Holdings Ltd. (雅迪集團控股有限公司), Shenzhen TAILG Technology Group Co., Ltd. (深圳台鈴科技集團有限公司) and Zhejiang Luyuan Electric Vehicle Co., Ltd. (浙江綠源電動車有限公司) to carry out multi-dimensional strategic cooperation, releasing entrepreneurial potential and facilitating the industry development. Through the cooperation with internet enterprises such as Alipay and JD.com, it strived to construct a new ecology travelled by two-wheeled electric vehicles. In cooperation with enterprises such as AntChain and Chunteng Wulian (春藤物聯), the Group focused on the "last kilometre" travel of two-wheeled electric vehicles and the new mode of charging and replacing batteries.


In addition, motive lead-acid batteries are also widely used in special industrial vehicles. At present, the development trend of electrification and intelligentisation of special industrial vehicle products is obvious, and the demand for new energy industrial vehicles is growing rapidly. The Group's motive lead-acid batteries for special electric industrial vehicles have a profound technical capacity. This Year, the Group continued to carry out R&D in materials, processes, and equipment to continuously improve our product performance. At the same time, the Group responded quickly to market demand, launched competitive products, and cooperated with leading downstream companies to gain a leading edge for the Group to continue to develop the electrified industrial vehicles market.

In the new era of energy, Tianneng accelerates its global layout and provides green energy system solutions to consumers, industrial and commercial users, and public institutions around the world. According to Frost & Sullivan's forecast, the annual sales volume of electric two-wheelers in overseas markets will reach 46.30 million by 2026, with promising sales in Europe, the United States, Southeast Asia and India. Southeast Asia is one of the world's largest two-wheeler markets, accounting for approximately 25% of the global market. According to Regional Comprehensive Economic Partnership (RCEP), Indonesia and Vietnam will lower tariffs on Chinese exports of two-wheeled vehicles, providing development opportunities for Chinese enterprises to enter the market in Southeast Asia. Due to the deregulation of the Motorcycle Ban, implementation of the Oil-for-Electricity policy, improvement of infrastructure, development of e-commerce and online catering industry, there is a broad market for electric two-wheelers in Southeast Asia.

During the reporting period, the official establishment of the Vietnam representative office of Tianneng in Ho Chi Minh City marked a new beginning for the Group to practise localised and platform-based operations in Southeast Asia, which will lay a solid foundation for further expanding the Southeast Asian market and marching towards the world. In December 2022, the Group demonstrated its green energy solutions with multi-scenarios at the 18th Saigon Autotech & Accessories Show in Vietnam, showcasing the Group's product solutions and technology roadmap in various fields such as new energy electric vehicles, urban logistics and construction machinery.

### Automotive starter and star-stop batteries

As the second largest application market for lead-acid batteries, the automotive battery is also the focus of the Group. The Group's starter batteries for automobiles are designed for instant starting, ignition, and lighting power needs of vehicles, ships, diesel start-stop locomotives, etc., while start-stop batteries are used in the vehicle start-stop system to save energy and reduce consumption. During the reporting period, the automotive battery business recorded an operating income of approximately RMB481 million.

Automotive starter and start-stop batteries are an indispensable part of automobiles and a major segment of the automotive aftermarket. According to the automobile production and sales data in 2022 released by China Association of Automobile Manufacturers, the production and sales volume of automobiles in China amounted to 27,021 thousand and 26,864 thousand respectively, representing a year-on-year growth of 3.4% and 2.1%, respectively. In 2022, the number of vehicle ownership in China reached 0.32 billion vehicles, representing, a year-on-year growth of nearly 6%.

During the first half of 2022, the growth rate of the market slowed down due to factors such as disruption of supply chain and production reduction by OEMs. However, driven by a series of policies such as the halving of tax on vehicle purchase and consumption stimulus policies in the post-pandemic era, the automobile industry has also fully recovered, resulting in surging demand for automotive batteries. As a leading enterprise of new energy motive batteries, the Group has adopted international advanced production technology and production process for automotive starter and start-stop batteries, and achieved the perfect integration of green power and the automobile industry in terms of excellent battery performance, energy saving and consumption reduction, long service life and safety design. The energy density of existing automotive starter and start-stop batteries of the Group is 40-50 Wh/kg, while the number of charging cycles reaches more than 80,000 times.

During the reporting period, based on the consolidation of secondary sales and new retail sales channels, Tianneng has cooperated with nearly 400 distributors and strengthened cooperation with downstream OEMs, including Xuzhou Construction Machinery Group Co., Ltd. (徐州工程機械集團有限公司) ("**XCMG**"), China National Heavy Duty Truck Group Co., Ltd. (中國重型汽車集團有限公司) and other clients. It also signed a cooperation framework agreement with AC Cars (AC汽車), an automotive aftermarket industry media, based on the "industry + internet" marketing model, to develop a new path of digital intelligence in the automotive aftermarket. New development directions will be discussed in a customer-oriented and market-oriented approach jointly to accelerate the transformation of OEM cooperation in the future, and provide strong support for the Group's customer base expansion in the field of automotive batteries.

### Lead-carbon batteries for ESS

In June 2022, the 25 Key Requirements for Preventing Electricity Production Accident (2022 Edition) (Draft for Comment) (《防止電力生產事故的二十五項重點要求(2022年版)(徵求意見稿)》) was issued by the General Department of the National Energy Administration, which proposed that the medium and large electrochemical energy storage power stations shall not select and use NCM Li-ion batteries and sodium-sulphur batteries. Based on its high security and cost-effective characteristics, lead-carbon batteries will open up a broad market for applications in data centres and large-scale electrochemical energy storage power stations. Benefiting from the positive influence of the national ESS policy and the market's recognition of lead-carbon batteries technology, during the reporting period, the Group's operating income of lead-carbon batteries for ESS amounted to approximately RMB128 million, representing a year-on-year increase of approximately 225.08%.

Lead-carbon battery is a new type of battery independently developed by the Group with global leading technologies, which has overcome the technical barriers of traditional batteries such as low specific energy and short cruising range in China, and reduced the dependence on foreign products in an effective manner. During the Year, Key Technology and Application Project for Green Manufacturing of High-Performance Lead-Carbon Batteries (高性能鉛碳電池綠色製造關鍵技術與應用項目) jointly developed by the Group and Zhejiang University of Technology was granted with the first prize of China National Light Industry Council 2021 Science and Technology Progress Award. The lead-carbon battery project adheres to the concept of green ecological design, integrates R&D, production, sales and recycling into the whole life cycle management, forms a green closed loop, as well as improves the overall utilisation efficiency of resources.

During the reporting period, the Group formed a strategic partnership with Changxing Taihu Electric Co., Ltd. (長興太湖能谷科技有限公司) ("**Taihu Electric**"). Tianneng Battery Group Co., Ltd. (688819.SH) ("**Tianneng Share**"), a subsidiary of the Company listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange, obtained an order for 30GWh lead-carbon batteries for ESS with Taihu Electric. Meanwhile, construction of the Group's 10GWh lead-carbon batteries-based ESS project in Maanshan City, Anhui Province has been completed, which encourages the Group to expand the new ESS market and promotes the long-term development of the ESS business.

### (2) New energy batteries

New energy batteries are mainly Li-ion batteries, and also include the production and R&D of next-generation battery products such as hydrogen fuel cells and sodium-ion batteries. Among these, Li-ion batteries achieved a breakthrough in the Year. During the reporting period, the Group's Li-ion battery business recorded an operating income of approximately RMB1,602 million, representing a year-on-year increase of approximately 62.30%.

#### Li-ion batteries for ESS

The Group actively builds an energy storage industry ecosystem and provides customers with multi-scenario diversified system solutions, to create the second growth curve for future development. ESS products utilising Li-ion batteries, featured with advantages such as high energy density, high conversion efficiency and long cycle life, are mainly applied to the fields including power generation side, grid side and user side. During the reporting period, the Group's Li-ion batteries for ESS recorded an operating income of approximately RMB524 million, representing a year-on-year increase of 353.51%.

Li-ion batteries for ESS is a dynamic and promising industry in the world. According to the data of the Ministry of Industry and Information Technology (MIIT) of China, in 2022, China's ESS Li-ion battery shipments exceeded 100 GWh. Gaogong Industry Institution (GGII) predicts that by 2025, the ESS Li-ion battery shipments in China will reach 180GWh, and it is optimistic about future market of ESS Li-ion batteries. Currently, promotion on ESS on the power generation side and the grid side in China has commenced, accelerating the dynamic transformation of the new energy industry chain through a combination of industrial development and capital empowerment.

The Group is making more plans and arrangements for the field of ESS by facilitating the production line of battery cells and PACK as well as industrial projects supported by upstream and downstream materials and accessories, and covering the power generation side, the grid side and the user side, which will be widely used in scenarios such as photovoltaic power stations, wind farms and industrial parks. At present, the Group has successfully launched 100Ah, 180Ah and 280Ah ESS battery cells, designed various air-cooled and liquid-cooled ESS modules, launched the TN200 liquid-cooled ESS container, and obtained the relevant national standard certification.

Tianneng has innovated its business model and stepped up its efforts in jointly promoting the commercialization of ESS with the related parties in the industry chain. In China, Tianneng established strategic partnerships with enterprises including SGCC and China Huaneng Group Co., Ltd. (中國華能集團有限公司); through cooperations between the government and enterprises, facilitated the global sample of the new development model of new energy plus energy storage; participated in the first two grid-side ESS projects under construction in Zhejiang Province. Overseas, the Group undertook a number of ESS demonstration projects in Africa, including off-grid photovoltaic storage projects to broaden and deepen the Group's overseas market expansions, promote the sales of the Group's products globally, expand and strengthen the ecosystem of new energy batteries, whereby globalising and scaling up the Group's development in the ESS industry.

**Motive Li-ion batteries**

Under the backdrop of constructing a sustainable development pattern of society, electrification has become one of the main directions of green development of commercial and industrial vehicles. The Group's Li-ion motive batteries are widely used in fields such as industrial vehicles, logistic vehicles, sanitation vehicles, electric bicycles, electric passenger buses, mini-electric vehicles and special vehicles. The Group, proactively responding to the policy, is increasing its investment in the fields of warehousing and logistics with its leading industrial motive Li-ion battery products and solutions, so as to facilitate low-carbon and sustainable development of the logistics industry in China.

The Group has developed its own industrial motive Li-ion battery products with high energy density and security, facilitating product innovation ad application with eco-friendly science and technology. It has launched a number of products applicable to models such as pallet trucks, forklifts and reach forklifts, and the products also provided customers with customised, safe, reliable and durable product solutions to meet the requirements of the complex application scenarios in the warehousing and logistics industry for Li-ion batteries in terms of charging and discharging rate, energy density and security. During the Year, supported by safe core technology, the Group launched its self-developed 26700 new-generation lithium manganate composite system battery cells, which has attracted consumers with its outstanding advantages of long service life, cold resistance, high stability and high-quality performance.

As a well-known brand in the field of forklift batteries in China, the Group's customers include Hangcha Group Co., Ltd. (杭叉集團股份有限公司), Xuzhou Xugong Special Construction Machinery Co., Ltd. (徐州徐工特種工程機械有限公司), Anhui Heli Co., Ltd. (安徽合力股份有限公司), etc. At the 2022 New Energy Auto Show in Jinan, the Group exhibited a number of products and solutions applicable to low-speed four-wheeled electric vehicles such as Tianneng Classic (天能經典), Tianneng Journey (天能征途), Tianneng No. 1 (天能1號), Huiyuan (匯源品牌) and Tab No. 1 (泰博1號), which is not only the highlight of Tianneng's special motive batteries as the major product, but also an important embodiment of Tianneng's leading products and technologies to make green travel more feasible.

In the two-wheeled electric vehicle market, according to data of EVTank, the output level of two-wheeled electric vehicles with Li-ion batteries amounted to 13.17 million in 2021. As a result, the shipment of Li-ion batteries for two-wheeled electric vehicles reached 13.1GWh, representing a year-on-year increase of 21.7%. As the market leader in motive batteries for two-wheeled electric vehicles, the Group is currently equipped with NCM Li-ion battery capacity that can satisfy the demand for electric two-wheeler batteries.

**Hydrogen fuel cells**

During the reporting period, the Group's hydrogen fuel cells business achieved a breakthrough, recording an operating income of approximately RMB63.3906 million.

On 23 March 2022, the National Development and Reform Commission issued the Medium and Long-Term Plan for Hydrogen Energy Industry Development (2021-2035) (《氫能產業發展中長期規劃(2021-2035年)》), which stipulates the energy attribute of hydrogen as an integral part of the future energy system in China. Meanwhile, it also stipulates that hydrogen energy is the key direction for developing a strategic emerging industry, which suggests a new growth prospect in constructing a green and low-carbon industrial system and promoting industrial transformation and upgrade. The development and application of hydrogen energy in China has entered into a new stage with the introduction of favourable project-based policies for the hydrogen energy industry in various regions.

The Group has been facilitating the renewal of fuel cell products since its entry into the hydrogen energy industry. Currently, the Group has made significant breakthroughs in the R&D of fuel cell stacks, membrane electrodes, bipolar plates and engine systems, as well as the development and demonstration of application scenarios. It has successively developed various stack products, including 100-kW class graphite plate stacks and high-power metal plate reactors with up to 150kW. Such products have gone through verification and procurement by downstream customers, among which, various 70kW-160kW hydrogen fuel cell engine systems were delivered in the Year with overall cost leadership strategy.

With innovative products independently developed by the Group such as air-cooled stacks, the Group was granted with notable awards including the 2022 Best Innovative Technology (2022年度創新技術) and 2021 Trendbank Industry Emerging Star (2021勢銀行業年度新銳) at the GG Golden Globe Awards (高工金球獎). The high-power hydrogen fuel cell engine T-70 was listed as the first product (set) of Huzhou City in 2022. Cutting-edge products including the T80-C fuel cell engine, the TN-STK-M1 high-power metal plate stack and the high-performance membrane electrode with low platinum were presented at the World Manufacturing Convention with a high appraisal. The relevant products, added to the list of the Ministry of Industry and Information Technology after passing the national compulsory assessment, outperform the industry, and make a positive contribution to the promotion of hydrogen energy technology and the development of the industry as well as accelerating the electrification of commercial vehicles with hydrogen fuel cells.

In recent years, the Group has participated in the formulation of a number of national and industrial standards for hydrogen energy. Two standards, namely the Carbon Footprint Evaluation Guidelines for Proton-Exchange Membrane Fuel Cell Products (《質子交換膜燃料電池產品碳足跡評價導則》) (T/DZJN98-2022) and the Evaluation Requirements for Green Factories of the Proton-Exchange Membrane Fuel Cell Industry (《質子交換膜燃料電池行業綠色工廠評價要求》) (T/DZJN99-2022), partly formulated by Zhejiang Tianneng Hydrogen Energy Technology Co., Ltd. (浙江天能氫能源科技有限公司), were officially published.

The Group has established strategic cooperation with Geely New Energy Commercial Vehicles Group (遠程新能源商用車集團) (a wholly-owned subsidiary of Zhejiang Geely Holding Group Co., Ltd (浙江吉利控股集團有限公司)), XCMG and Xiamen King Long United Automotive Industry Co., Ltd. (廈門金龍聯合汽車工業有限公司), striving to explore diversified applications of hydrogen energy in transportation, construction machinery, shipping and other fields, and promoting the green transformation of final energy consumption in transportation, industry, ESS, etc. At the same time, Zhejiang Tianneng Hydrogen Energy Technology Co., Ltd. (浙江天能氫能源科技有限公司) entered into strategic cooperation agreements with Shanxi Gerun Times Construction Machinery Co., Ltd. (山西格潤時代工程機械有限公司) and Sino-Synergy Hydrogen Energy Technology (Jiaxing) Co., Ltd. (國鴻氫能科技(嘉興)股份有限公司), fully utilising their respective advantages in technology, industry chain, equipment and platform resources, jointly promoting the development and promotion of hydrogen energy industry, and cooperating with upstream and downstream hydrogen fuel cell enterprises for win-win development.

During the reporting period, on the basis of completing the construction of the R&D centre of hydrogen fuel cells, the Group has steadily promoted the construction of the industrial base project of fuel cell engine system in Shuyang, Jiangsu Province. The Shuyang project has been completed and accepted by the end of 2022, and the related production capacity of Tianneng's hydrogen fuel cells has been significantly improved.

### Sodium-ion batteries

In light of the rapid development of the new energy industry, factors such as continuous iteration, lifespan, properties, costs, and security of new-generation battery technology are the pain points of industry development and the focus of customer needs. As such, the Group has taken the lead to plan for the strategy of sodium-ion batteries business, increased R&D investments, accelerated technology breakthroughs, and swiftly built up the first-mover advantage. Sodium-ion batteries have a similar working principle and production process as Li-ion batteries. There are abundant resources of sodium salt which is evenly distributed. The production of sodium-ion batteries has no innate restraints of resource element with the advantages of low cost of energy, high stability and safety. Benefitting from these, sodium-ion batteries industry developed rapidly, material-front technology had constant breakthroughs, and barriers to battery technology were removed. At the dawn of the low-carbon era with the development of the ESS batteries industry, the industrialisation of sodium-ion batteries is approaching.

In 2021, the Group set up a sodium-ion battery R&D institution, established a high-level professional R&D team led by a group of experts, and launched R&D and trial productions of sodium-ion batteries, which resulted in relatively systematic technical achievements. On 5 September 2022, the Group established a wholly-owned subsidiary to implement the industrialisation of the Group's sodium-ion battery business.

The cells' types of the Group's sodium-ion batteries include cylindrical, pouch, and prismatic models. The cycle times and energy density of these batteries are at a leading level in the industry, and their temperature performance and high-rate discharge ability are relatively better than Li-ion batteries. In terms of technology, the Group took the layered metal technology route as the main breakthrough, and also arranged for the R&D and industrialisation of polyanionic materials. The Group has formed strategic cooperation with upstream manufacturers on cathode materials and achieved effective progress. During the reporting period, the Group actively coordinated and integrated upstream and downstream resources and made efforts to lower the costs of sodium-ion batteries, offering customers with sodium-ion battery products of high cost-effectiveness.

In terms of capacity, the Group constructed a production line dedicated to sodium-ion batteries, and it is currently pushing ahead with production. In terms of downstream customers, the Group mainly focused on the fields of light electric vehicles and ESS. In terms of the low-speed power market, benefitting from the Group's unique channel advantage, samples of sodium-ion battery products were sent to downstream leading customers, and the Group has started joint application matching development, product verification and import and other work with customers, and signed relevant cooperation agreements with several customers. During the reporting period, the Group achieved a series of major breakthroughs in the R&D of sodium-ion battery technology and product commercial application, and was awarded with the "2022 Industry Top 10 Innovative Brands (2022行業十大創新品牌)" and the "Golden Tripod Awards (金鼎獎)", which is a symbol of technology innovation.

### (3) Recycling industry

The Chinese "14th Five-Year Plan for the Development of Circular Economy" specifically stated the vigorous development of a circular economy, promotion of economical and intensive utilisation of resources, and construction of a circular utilisation system of waste materials. Such a plan is of great significance for securing the safety of national resources, promoting the realisation of "Carbon Peaking, Carbon Neutrality", and facilitating the construction of ecological civilization.

As a practitioner and leader of green recycling industry in China, Tianneng has put huge efforts in developing a circular economy, actively looked for industry cooperation, explored green low-carbon technology innovation model, and created a closed-loop green industry chain that integrates "recycling, smelting and reproduction" and comprises "lead recycling + lithium recycling + great recycling". During the reporting period, the Group recorded an external operating income of approximately RMB3,814 million from the recycling industry, representing a year-on-year increase of approximately 42.39%.

#### Recycling lead-acid batteries

In 2022, the annual scrap volume of lead-acid batteries in China exceeded over 6 million tons. The Group's lead-acid battery recycling business has been deployed since 2009 and  so far the disposal volume has reached 1 million tons. The Group's lead-acid batteries recycling business recorded an external operating income of approximately RMB3,084 million in 2022, representing a year-on-year growth of approximately 34.20%.

Recycling of used batteries covered motive batteries, automotive batteries and ESS batteries, and products produced were mainly recycled lead (lead ingots), sulfuric acid, plastic shells, etc. In 2022, the proportion of local usage of recycled lead in China exceeded 50%. With the continuous optimisation of the industry structure of recycled lead, the ratio of use of recycled lead replacing primary lead is expected to increase steadily. In light of the recycled materials, Tianneng has innovated and created an integration model of sale and recycle, which not only provides the Company with raw material resource channels that significantly reduce costs, but also sets up a new model of circular economy for the industry.

The lead recycling business has opened up the entire industry chain of the Group's main business, with significant synergies between upstream and downstream businesses. Taking advantage of the distribution outlets of various distributors and terminal stores, the Group set up more than 600 battery recycling outlets in 15 provinces nationwide, built green circular industry parks in various locations such as Changxing County of Zhejiang Province, Shuyang County of Jiangsu Province, Puyang City of Henan Province, etc., and established battery recycling pilot companies in many cities including Beijing and Shanghai.

Province-based franchises have been launched for used lead acid batteries in segments such as recycling, transportation, and disposal, and first-tier qualified enterprises will be favoured. The Group obtained the qualification for launching pilot recycling projects in 15 provinces. The Group has profound technical capacity in the field of lead-acid batteries recycling, and the recycling rate of lead, molded case and sulfuric acid exceeds 99%. At present, the new production line has been approved, and the Group's recycling capacity of lead-acid batteries will be further enhanced.

The Group has built a mature lead-recycling system. By relying on its strong market position as well as years of rich operating experience, the Group will strengthen its strategy in the future, include more hazardous waste disposal companies, and deploy Li-ion recycling channels. To comprehensively improve the resource utilisation efficiency, the Group will provide significant support to accelerate the transformation and upgrade of its industry structure.

**Recycling Li-ion batteries**

Li-ion battery recycling mainly consists of waste motive batteries, consumer batteries and ESS batteries. The main output are lithium carbonate, cobalt sulfate, nickel sulfate and manganese sulfate. During the reporting period, the Group's Li-ion battery recycling business recorded an operating income of approximately RMB678 million, representing a year-on-year growth of approximately 99.86%.

China's mineral resources of Li-ion batteries' core materials are heavily dependent on imports, and the upstream supply is highly uncertain. It is thus necessary to establish a complete recycling system for lithium resources and strengthen the independent control ability of upstream strategic resources, which will be conducive to alleviating the "bottlenecks" of lithium resources. According to the White Paper for the Development of the Recycling and Dismantling of Used Li-ion Batteries and Echelon Utilization Industry in China (2022) (《中國廢舊鋰離子電池回收拆解與梯次利用行業發展白皮書(2022年)》) published by EVTank, the theoretical recovery amount of used Li-ion batteries in China reached 591 thousand tons in 2021, of which the theoretical recovery amount of used power batteries was 294 thousand tons. The recovery and regeneration of lithium resources has become an essential part of the battery industry chain and will soon enter a period of fast development.

At present, the development of Li-ion batteries recycling industry is still in the early stage. The Group has advantages of a wide-ranging sales network strategy and online recycling channels. At the same time, it actively promotes strategic cooperation with new energy vehicle operating enterprises, holds the qualifications of dual white lists for recycling and echelon utilisation, and builds elite R&D teams, which lay a solid foundation for the Group in the Li-ion batteries recycling industry.

Regarding the technical aspect, the Group has cooperated closely with universities and scientific research institutes such as the Institute of Process Engineering, Chinese Academy of Sciences, Central South University and the Zhejiang University of Technology to carry out technical research. Key breakthroughs have been made in several core technologies, such as automatic charged battery disassembling and crushing, rapid intelligent sorting of materials, harmless processing of electrolytes, and efficient lithium extraction. The Group has built the industry's leading Li-ion battery recycling and processing production line, with the recovery rate of lithium increasing to over 88%, and the comprehensive technical index reaching the international advanced level.

In recent years, the Group has also strengthened the strategy of motive Li-ion batteries recycling and resource recycling, as well as speeding up the implementation of the "3+5+N" recycling strategy of 3 comprehensive disposal bases, 5 regional recycling bases and N recycling disposal points. The current disposal capacity of Wushan Li-ion batteries recovery base in Changxing County, Zhejiang province is about 10,000 tons. Further, the base in Binhai County, Jiangsu province that is under construction will reach a total annual disposal capacity of 100,000 tons.

## Outlook

Tianneng is experiencing a profound transformation from being a product provider which focuses on lead-acid batteries for electric two-wheelers in the past to a green energy solution provider now driven by diversified technologies in respect of lead, lithium, hydrogen and sodium and co-existence of multiple business scenarios. The Group has concentrated on the application fields relating to new energy batteries, established strategies for new-generation technologies such as methanol and ammonia. The Group will take the ecosystem as the main body and medium to gradually improve its forward-looking strategy in terms of technology and service, thereby achieving initiatives of the strategy of "business + technology + capital".

Through intelligent manufacturing of lead-acid batteries, together with innovative models such as digital marketing and integration of sale and recycling, a vertical integration will be set up, the efficiency of the lead industry will be enhanced, while digital intelligence will be used to connect the procurement, production, sales, recycling and research systems to build an industrial ecosystem with the focus on motive lend-acid batteries, so as to maximise optimal allocation of production factors in the lead industry and ecological benefits.

New ESS is leading the green energy industry for improvement amidst changes with its unique industrial advantages and clear direction for development. In the future, Tianneng will put more emphasis on systematic planning of innovation in ESS technology and strengthen its strategic deployment in three aspects including the promotion of diversified technology development, the breakthrough in the whole process of safety technology, and innovation of intelligent adjustment technology, so as to overcome the challenges by focusing on the technology. Meanwhile, it will also take into account the optimal allocation of innovative resources to facilitate the cross-sector development of industry and academia as well as research and application.

Tianneng will also be more open and integrated to carry out broader, more precise, and more sustainable international cooperation in respect of energy, and to gather efforts for the construction of a global energy community. Relying on the services and empowering system of the Tianneng Globalization Alliance (TGA), Tianneng will continuously strengthen the cooperation with members and achieve the globalisation of markets, R&D, talents, capital, brands, and manufacturing in full force through local operation, sales leadership, capital injection, technological achievement and industrial implementation.

## Management Analysis

### Gross profit

The Group's gross profit increased by approximately 38.27% to approximately RMB6,389 million in 2022 from approximately RMB4,621 million in 2021, which was attributable to the increase in sales volume and gross profit margin of batteries. The overall gross profit margin increased by 3.16 percentage points to 8.56% from 5.40% in 2021. Among them, gross profit margin of manufacturing segment was 15.11%, representing an increase of 3.06 percentage points when compared with that in 2021. This was mainly attributable to the enhancement of cost management resulting in the decrease in cost of lead-acid batteries as compared with the previous year, and the increase in sales price of the products.

### Other income

Other income of the Group increased by approximately 1.11% from approximately RMB1,094 million in 2021 to approximately RMB1,106 million in 2022. The increase was mainly attributable to the increase in government grants and interest income. Interest income increased from approximately RMB218 million in 2021 to approximately RMB315 million in 2022. The increase was mainly attributable to optimised fund allocation and increase in interest income from deposit.

### Distribution and selling costs

Distribution and selling costs of the Group increased by approximately 18.53% from approximately RMB1,037 million in 2021 to approximately RMB1,229 million in 2022. The increase in selling and distribution costs was mainly due to the increase in transportation fees.

### Administrative expenses

Administrative expenses increased by approximately 37.75% from approximately RMB989 million in 2021 to approximately RMB1,363 million in 2022. Such increase was mainly due to the increase in staff cost and consultancy expenses.

### Finance costs

Finance costs increased by approximately 34.10% from approximately RMB254 million in 2021 to approximately RMB341 million in 2022, which was mainly due to the increase in loan size during the Year.

### Taxation

Tax charges of the Group increased by approximately 130.69% from approximately RMB286 million in 2021 to approximately RMB659 million in 2022, which was mainly due to the increase in profit during the Year.

## Liquidity and Financial Resources

The net cash from operating activities for the year of 2022 was approximately RMB1,590 million (2021: RMB2,105 million). The decrease was mainly attributable to the growth of inventories as a result of the increase in the Group's production capacity in 2022.

As at 31 December 2022, the bank balances and cash (including pledged bank deposits) of the Group was approximately RMB12,926 million (31 December 2021: approximately RMB11,640 million). As at 31 December 2022, the Group obtained undrawn banks facilities of approximately RMB13,086 million (31 December 2021: approximately RMB7,859 million). The bank balances and cash (including pledged bank deposits) of approximately RMB12,700 million, RMB145 million, RMB81 million and RMB88.18 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 1.75% of the total balances, the Group's relevant exchange risk is low.

As at 31 December 2022, the net current assets of the Group were approximately RMB6,166 million (31 December 2021: net current assets of approximately RMB7,799 million). The decrease was primarily attributable to the increase in notes payables of the Company, and that the Company was able to control the level of its liabilities and financial risks.

As at 31 December 2022, the interest bearing loans of the Group with maturity of within one year amounted to approximately RMB4,570 million (31 December 2021: approximately RMB2,875 million). The interest bearing loans of the Group with maturity of more than one year amounted to approximately RMB1,637 million (31 December 2021: RMB1,409 million). The interest bearing loans of RMB4,839 million (31 December 2021: approximately RMB2,551 million) carried fixed and variable interest rates ranging from 2.23% to 6.50% (2021: 2.23% to 7.36%) per annum. Loans dominated in U.S. dollar and Hong Kong dollar as converted to denomination in Renminbi of approximately RMB1,369 million 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 2022, the total assets of the Group were approximately RMB40,136 million, representing an increase of 22.59% as compared to approximately RMB32,739 million as at 31 December 2021. Among them, non-current assets increased by approximately 40.87% to approximately RMB13,597 million and current assets increased by approximately 14.95% to approximately RMB26,539 million. The major reason for the increase of non-current assets was due to the capital expenditure on production plants and equipment upgrade. The increase in current assets was mainly attributable to the increase in inventories, notes receivables and bank deposits.

### Liabilities

As at 31 December 2022, the total liabilities of the Group were approximately RMB22,970 million, representing an increase of approximately 32.30% as compared to approximately RMB17,362 million as at 31 December 2021. Among them, non-current liabilities increased by approximately 25.15% to approximately RMB2,596 million, mainly due to the increase in long-term interest bearing borrowings and deferred income; current liabilities increased by approximately 33.27% to approximately RMB20,374 million, mainly due to the increase in bill payables and short-term borrowings.

## Analysis by Key Financial KPIs

### Profitability:

| | **2022** | 2021 |
|---|---|---|
| Return on equity | **12.78%** | 12.49% |
| Gross profit margin | **8.56%** | 5.40% |
| – Sales of batteries and battery related sales | **15.11%** | 12.05% |
| – Trading | **0.14%** | 0.11% |
| Net profit margin | **2.79%** | 1.81% |

The overall gross profit margin in 2022 increased as compared to 2021 due to the increase of manufacturing business. In 2022, the Group enhanced its cost management, resulting in the decrease in cost of lead-acid batteries as compared with the previous year, coupled with the increase in sales price of products, thereby achieving growth in gross profit margin of lead-acid products.

**Liquidity:**

| | **2022** | 2021 |
|---|---|---|
| Current ratio | **1.30** | 1.51 |
| Quick ratio | **0.97** | 1.22 |

Both the ratios above in 2022 decreased when compared with those in 2021, mainly due to less increment of current assets as compared to that of the current liabilities.

**Operating Cycle:**

| | **2022** | 2021 |
|---|---|---|
| Inventory turnover days | **30** | 20 |
| Account receivables turnover days | **8** | 6 |
| Account payables turnover days | **15** | 12 |
| Bills and account receivables turnover days | **12** | 13 |
| Bills and account payables turnover days | **40** | 25 |

The inventory turnover days increased by 10 days to 30 days in 2022 due to the increase in production capacity and inventory in 2022. Account receivables turnover days increased by 2 days from 2021 to 8 days in 2022 due to the increase in sales in the primary market in 2022, resulting in an increase in accounts receivable. Account payables turnover days for 2022 increased by 3 days to 15 days mainly due to the increase in account payables. Bills and account receivables turnover days decreased by 1 day to 12 days. Bills and account payables turnover days increased by 15 days to 40 days due to the increase in account payables.

**Capital:**

| | **2022** | 2021 |
|---|---|---|
| Net debt ratio | **-11.00%** | -28.70% |
| Interest coverage ratio (Note) | **11.30** | 10.60 |

Note: EBITDA divided by total interest expenses

As the interest bearing debt ("**Debt**") and the cash and bank balances as at 31 December 2022 were RMB6,207 million and RMB8,096 million, respectively, the net debt was RMB-1,888 million. There was adequate total capital during the Year.

The interest coverage ratio is 11.30 times, and the ability to make interest payments still remain strong.

**Return of Shareholders:**

| | **2022** | 2021 |
|---|---|---|
| Earning per share (Basic) (RMB) | **1.60** | 1.15 |
| Dividend per share (HK cents/share) | **40.00 (Note)** | 40.00 |

Note: representing the dividend proposed by the Company's board of directors (the "Board") for 2022, which is subject to approval at the forthcoming annual general meeting.

## Capital Expenditure

The capital expenditure in 2022 was approximately RMB3,029 million (2021: approximately RMB2,356 million). A majority of the expenditure was incurred in the lithium-ion battery segments, the start-stop battery segments and construction investment in the forthcoming 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 2022 was approximately RMB2,934 million (31 December 2021: approximately RMB2,043 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 2022 was approximately 15.47% (31 December 2021: approximately 13.08%).

## 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 2022 (31 December 2021: Nil).

## Pledge of Assets

As at 31 December 2022, 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 RMB7,851 million (31 December 2021: RMB4,315 million).

## Employee and Remuneration Policies

As at 31 December 2022, the Group employed a total of 26,971 employees (31 December 2021: 25,618 employees). Staff costs excluding directors' emoluments of the Group for the year of 2022 amounted to approximately RMB3,264 million (2021: RMB2,702 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 the 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 19 and Note 26 to the consolidated financial statements, there were no other significant investments held by the Group as at 31 December 2022. Such investments refer 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 2022, 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 2022:

| Issuer | Product Category | Principal activities | Investment cost/ nominal value (RMB'000) | Fair value as at 31 December 2022 (RMB'000) | Interest/dividend received (RMB'000) | Percentage of total assets of the Company as at 31 December 2022 |
|---|---|---|---|---|---|---|
| Shanghai Pudong Development Bank Co., Ltd. | Raised wealth management structured deposit | Banking services | 140,000 | 140,000.00 | – | 0.35% |
| Industrial and Commercial Bank of China Limited | Raised wealth management structured deposit | Banking services | 100,000 | 100,000.00 | – | 0.25% |
| Bank of Shanghai | Structured deposit | Banking services | 30,000 | 30,040.81 | 40.81 | 0.07% |
| Standard Chartered Bank (Hong Kong) Limited | Locked exchange | Banking services | – | 5,625.00 | – | 0.01% |
| Standard Chartered Bank (Hong Kong) Limited | Locked exchange | Banking services | – | 3,750.00 | – | 0.01% |
| Galaxy Futures Co. | Futures | | – | 834.98 | – | 0.00% |
| CITICS Futures Co., Ltd. | Futures | | – | 1,031.38 | – | 0.00% |
| Listed company | Equity securities listed in China | | 41,727.19 | 43,876.61 | 1,398.19 | 0.11% |
| Listed company | Equity securities listed in Hong Kong | | 17,887.95 | 25,280.34 | – | 0.06% |

## Material Acquisition and Disposal

The Group has no material acquisition and disposal of subsidiaries, associates and joint ventures during the reporting period.

## 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 Chinese economy growth will slow down in the 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 upgrade 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 increasing pressure of higher production cost. The Group will make use of more resources in establishing production automation system in order to reduce manpower needed per production unit. At the same time, the employee incentive scheme will be used as the other way to improve manpower efficiency.

Please refer to notes 4 and 42 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 "Outlook" 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 Monday, 5 June 2023 to Thursday, 8 June 2023 (both days inclusive), during which period no transfer of 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 17/F, Far East Finance Centre 16 Harcourt Road Hong Kong, no later than 4:30 p.m. on Friday, 2 June 2023.

Further, the register of members of the Company will be closed from Thursday, 15 June 2023 to Friday, 16 June 2023 (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 17/F, Far East Finance Centre 16 Harcourt Road Hong Kong not later than 4:30 p.m. on Wednesday, 14 June 2023. Subject to the approval of the shareholders at the annual general meeting of the Company to be held on Thursday, 8 June 2023, the proposed final dividend is expected to be paid on or before Friday, 7 July 2023.

## Executive Directors

### Dr. ZHANG Tianren
### 張天任博士

Aged 60, 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 37 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, 13th and 14th 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 65, 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 69, 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 33 years of management experience in rechargeable battery enterprises.

## Mr. ZHANG Kaihong
## 張開紅先生

Aged 65, 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 36 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 52, 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 28 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 67, 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 47, 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 the deputy director of Shanghai Institution for Finance & Development, 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). He has been an independent director of Haima Automobile Co., ltd. which a listed company 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 company 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 company on the Main Board of the Shanghai Stock Exchange (Stock code: 600848.SH) since September 2021. He has been an independent director of Tengda Construction Group Co.,Ltd. which is a listed company on the Main Board of the Shanghai Stock Exchange (stock code: 600512.SH, since November 2022.

### Mr. XIAO Gang
### 肖鋼先生

Aged 61, 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 58, 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 59, 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 40 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 55, 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 Chartered Governance Institute (formerly known as the Institute of Chartered Secretaries and Administrators) as well as a fellow member of the Hong Kong Chartered Governance institute (formerly known as the Hong Kong Institute of Chartered Secretaries). She is a member of the Society of Chinese Accountants and Managements and the Hong Kong Securities Institute. Ms. HUI has over 33 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 of the Company (the "**Board**") believes that good corporate governance practices are increasingly important for maintaining and promoting investors' confidence.

## Corporate Governance Code

The Company has adopted and met the provisions of Part 2 of the Corporate Governance Code (the "**Code**") as contained in Appendix 14 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Listing Rules**") that is applicable to the corporate governance report for the year ended 31 December 2022, except for the code provision C.2.1 in Part 2 of the Code 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 2022, Mr. Xia Yongyao resigned as an independent non-executive Director and Mr. Xiao Gang was appointed as an independent non-executive Director with effect from 15 March 2022. As at 31 December 2022, 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. Xiao Gang are the independent non-executive Directors of the Company. 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 32 to 34 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.

The Board has established mechanisms to ensure that independent views are available to the Board, including providing the Directors with sufficient resources to perform their duties, and Directors shall seek, at the Company's expense, independent professional advice to perform their responsibilities if necessary.

The Board shall at all times comprise at least three independent non-executive Directors that represent at least one-third of the Board, such that there is always a strong element of independence on the Board which can effectively exercise independent judgement.

All the Directors, including the independent non-executive Directors, are given equal opportunity and channels to communicate and express their views to the Board and have separate and independent access to the management of the Group in order to make informed decisions. The chairman of the Board will hold meetings with the independent non-executive Directors without the involvement of other Directors at least annually to discuss any issues and concerns.

If any Director or his/her associate has a conflict of interest in a matter to be considered by the Board and the Board has determined that such conflict of interest to be material, such matter will be dealt with by a physical Board meeting rather than by written resolutions. Such Director will be required to declare his/her interests before the meeting and abstain from voting on the relevant resolutions.

The Board has reviewed and considered that the mechanisms have been duly implemented and are effective in ensuring that independent views and input are available to the Board during the year ended 31 December 2022.

## 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 the management, it has given clear directions as to the powers of the management, in particular, with respect to the circumstances where the 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 third party involving capital commitment from the Group of over 5% in the relevant size test of the Company; and
- Financial assistance to the Directors.

In addition, the Board carries out 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 2022. 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. Zhang Yong | 4/4 | 1/1 |
| Mr. Xia Yongyao (resigned with effect from 15 March 2022) | 3/4 | 0/0 |
| Mr. Xiao Gang (appointed with effect from 15 March 2022) | 4/4 | 4/4 |

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

| | |
|---|---|
| Mr. Huang Dongliang | 11 June 2022 to 10 June 2023 |
| Mr. Zhang Yong | 8 August 2022 to 7 August 2023 |
| Mr. Xia Yongyao (resigned with effect from 15 March 2022) | 30 June 2021 to 29 June 2022 |
| Mr. Xiao Gang (appointed with effect from 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.

## Diversity

With a view to achieve 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 gender, 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 and measurable objectives, including but not limited to gender, 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. The Group's diversity policy is 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 gender, knowledge, appropriate professional qualifications, relevant business background and experience, skills, relevant management expertise, independence of Directors, etc. 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.

The Board aims to appoint at least one female director by December 31, 2024, in order to achieve gender diversity in the composition of the Board. The Board targets to continue to maintain at least one female representation on the Board. The Company will ensure that sufficient resources are available for providing appropriate trainings and career development to develop a pipeline of potential successors to the Board and maintain gender diversity.

To achieve diversity at workforce level, the Group has put in place appropriate recruitment and selection practices such that a diverse range of candidates are considered and ensure that gender diversity is taken into account when recruiting staff members of mid to senior level. The Group has also established talent management and training programs to provide career development guidance and promotion opportunities to develop a broad and diverse pool of skilled and experienced employees. During the year under review, the Board was not aware of any mitigating factors or circumstances which make achieving gender diversity across the workforce (including senior management) more challenging or less relevant.

Details on the gender ratio of the Group together with relevant data can be found in the 2022 Environmental, Social and Governance Report of the Company.

### Directors' Training

Pursuant to Provision C.1.4 of Part 2 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 guidance 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 director of a listed company.

For the period from 1 January 2022 to 31 December 2022, 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. Zhang Yong, Mr. Xia Yongyao (resigned with effect from 15 March 2022) and Mr. Xiao Gang (appointed with effect from 15 March 2022), 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 guidance 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 the annual general meeting. In their absence, the chairman should invite another member of the committee or failing this, his duly appointed delegate, to attend the annual general meeting. 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. Xia Yongyao 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 31 December 2022, 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 also makes recommendations to the Board on the remuneration packages of the Directors and senior management.

The Remuneration Committee shall meet at least once a year. One committee meeting was held in 2022 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. Xiao Yongyao (resigned with effect from 15 March 2022) | 0 | 0 |
| Mr. Zhang Aogen | 1 | 1 |
| Mr. Xiao Gang (appointed with effect from 15 March 2022) | 1 | 1 |

During the Remuneration Committee meeting, proposal for adjustment of the 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 approva and 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. Xia Yongyao 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 31 December 2022, 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 consideration. 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 (if applicable). 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 (if applicable). 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 as 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 B.2.2 of Part 2 of the Code, 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 2022 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. Xia Yongyao (resigned with effect from 15 March 2022) | 0 | 0 |
| Mr. Xiao Gang (appointed with effect from 15 March 2022) | 1 | 1 |

## Remuneration of the Senior Management

The remuneration of the senior management of our Group for the year ended 31 December 2022 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 2022.

## Audit Committee

The Company has established an audit committee (the "**Audit Committee**") in compliance with Rule 3.21 of the Listing Rules. Mr. Xia Yongyao 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. Xia Yongyao 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 31 December 2022, the Company's 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 to comply with provision D.3.3 of Part 2 of the Code. The Audit Committee held three meetings during the year ended 31 December 2022. The attendance of each member is set out as follows:

| Name | Meetings held | Meetings attended in person |
|---|---|---|
| Mr. Huang Dongliang | 3 | 3 |
| Mr. Xia Yongyao (resigned with effect from 15 March 2022) | 0 | 0 |
| Mr. Zhang Yong | 3 | 3 |
| Mr. Xiao Gang (appointed with effect from 15 March 2022) | 3 | 3 |

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 2022, 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 2022 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 2022 and the year ended 31 December 2022, with the Auditors' Report thereon.

The Audit Committee recommended to the Board that the Shareholders be asked to re-appoint Deloitte Touche Tohmatsu ("**Deloitte**") as the Group's independent external auditor for the year ending 31 December 2023.

## Independent External Auditor

In 2019, 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 work flows for the Company's financial year ended 31 December 2019.

The Board, with the recommendation from the Audit Committee, resolved to appoint ZHONGHUI ANDA CPA Limited ("**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 next 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 reviewed a letter from ZHONGHUI ANDA confirming its independence, approved its appointment, discussed the scope of its audit and approved 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.

In 2022, ZHONGHUI ANDA has resigned as the auditor of the Group with effect from 5 July 2022 taking into account the availability of its internal resources for the audit services for the Company's financial year ended 31 December 2022.

The Board, with the recommendation from the Audit Committee, has resolved to appoint Deloitte as the new auditor of the Group with effect from 8 July 2022 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.

ZHONGHUI ANDA has confirmed in its letter of resignation dated 5 July 2022 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.

The Board and the Audit Committee confirmed that there was no disagreement or dispute between the Company and ZHONGHUI ANDA except for the consensus on the relevant internal resources for the audit services 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.

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

Deloitte has provided annual statutory audit services in respect of the Company's financial statements prepared under HKFRSs for the year ended 31 December 2022. Deloitte has also reviewed the 2022 unaudited interim financial report of the Company, prepared under HKFRSs.

During the year ended 31 December 2022, the fees paid and payable to Deloitte in respect of audit and audit related services amounted to approximately RMB2.0268 million, while the fees paid and payable to Deloitte relating to non-audit services (provision of assistance in fulfilling Tianneng Power's country-by-country reporting obligations and issuing letters on the statement of sufficient working capital) amounted to approximately RMB1.2372 million.

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 and risk management 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 of the year. 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, rather than eliminate risks of failure in operation systems and failure to achieve business objectives. The Group also has an internal audit function.

The Group strictly follows the requirements of the SFO and the Listing Rules and ensures that inside information is disclosed to the public as soon as reasonably practicable. Before inside information is fully disclosed to the public, such information is kept strictly confidential. The Group has further enhanced the procedures with the establishment of a continuous disclosure policy and provided relevant training to all relevant staff of the Group. The Board considered that the procedures and measures in relation to the handling and dissemination of inside information to be effective and adequate.

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 2022. The Audit Committee members, together with the senior management, have reviewed, considered and discussed all findings and recommendations of the internal control review relating to the internal control system that operates within the Group, and the Audit Committee and the senior management are 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.

Completing the review this year, the Board considers that its risk management and internal control systems are effective and adequate. 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. The Board considers that the Company's communication with shareholders is effective during the year under review.

## 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 71 to page 72.

## Constitutional Documents

There are no significant changes in the Company's constitutional documents during the year ended 31 December 2022.

The Board proposes to amend the existing memorandum and articles of association of the Company (the "**Memorandum and Articles**") and to adopt the amended and restated memorandum and articles of association of the Company incorporating the amendments (the "**New Memorandum and Articles**") for the purposes of, among others, providing more flexibility in relation to the conduct of general meetings of the Company by allowing general meetings to be held at different physical locations simultaneously, or to be held as hybrid meetings or electronic meetings which may be attended by the Shareholders by means of electronic facilities, reflecting the latest amendments to the Listing Rules and bringing the Memorandum and Articles up-to-date with the applicable laws of the Cayman Islands.

The proposed amendments to the Memorandum and Articles and the proposed adoption of the New Memorandum and Articles are subject to the approval of the Shareholders by way of a special resolution at the forthcoming annual general meeting of the Company. The New Memorandum and Articles will take effect on the date on which the proposed amendments are approved by the Shareholders at the annual general meeting.

The Directors present the annual report and the audited consolidated financial statements for the year ended 31 December 2022.

## 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 the principal subsidiaries are shown in note 46 to the consolidated financial statements.

## Results and Appropriations

The results of the Group for the year ended 31 December 2022 are set out in the consolidated statement of profit or loss and other comprehensive income on page 73. The Directors propose to declare a final dividend of HK40.00 cents per Share (2021: HK40.00 cents).

## Property, Plant and Equipment

During the Year, construction in progress of approximately RMB382 million and RMB253 million 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 RMB1,228 million. Details of these and other movements in the property, plant and equipment of the Group during the Year are set out in note 16 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 35 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 2022, the Company's reserve available for distribution amounted to approximately RMB909 million (2021: RMB756 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. Zhang Yong
Mr. Xia Yingyao (resigned with effect from 15 March 2022)
Mr. Xiao Gang (appointed with effect from 15 March 2022)

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

| | |
|---|---|
| Mr. Huang Dongliang | 11 June 2022 to 10 June 2023 |
| Mr. Zhang Yong | 8 August 2022 to 7 August 2023 |
| Mr. Xia Yingyao (resigned with effect from 15 March 2022) | 30 June 2021 to 29 June 2022 |
| Mr. Xiao Gang (appointed with effect from 15 March 2022) | 15 March 2022 to 14 March 2023 |

In accordance with Article 87 of the Company's articles of association, Dr. Zhang Tianren, Mr. Shi Borong and Mr. Zhang Yong will retire from office and, being eligible, offer themselves for re-election at the forthcoming annual general meeting ("**AGM**").

## Directors' Service Contracts

All of the executive Directors and independent non-executive Directors of the Company have entered into service contracts or letters of appointment with the Company. 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 3 years from 8 August 2018; the term of appointment of Mr. Xia Yongyao (resigned as an independent non-executive Director with effect from 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.

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 2022, 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 letter "L" denotes long position in the Shares of the Company.
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 were 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 2022.

## 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. 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 of the Company dated 16 June 2014.

## Retirement Benefits Scheme

Details of the retirement benefits scheme of the Group are set out in note 38 to the consolidated financial statements.

## Directors' Rights to Acquire Shares or Debentures

Save as disclosed on pages 56 and 60, 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.

## 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 2022, 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 3) |
|---|---|---|---|
| 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 letter "L" denotes long position in the Shares of the Company.

2. The 410,355,650 Shares were held by Prime Leader Global Limited, which was wholly-owned by Dr. Zhang Tianren. 438,000 Shares were 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 2022.

## Share Option Schemes

A share option scheme (the "**2007 Share Option Scheme**") was adopted pursuant to a resolution passed by the Shareholders on 26 February 2007. 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 2007 Share Option Scheme expired on 10 June 2017. After its termination, no further options will be granted but the provisions of the 2007 Share Option Scheme shall in all other respects remain in full force and effect and options which were granted during the life of the 2007 Share Option Scheme may continue to be exercisable in accordance with their terms of issue.

The following is a summary of the terms of the 2007 Share Option Scheme:

### (a) Purpose

To provide incentives or rewards to selected participants for their contribution to the Group.

### (b) Participants

Full-time employee, Directors (including independent non-executive Directors) and part-time employees with weekly working hours of 10 hours and above, of the Group, substantial shareholders of each member of the Group, associates of the Directors and substantial shareholders of any member of the Group, trustee of any trust pre-approved by the Board, and any advisor (professional or otherwise), consultant, distributor, supplier, agent, customer, joint venture partner, service provider to the Group whom the Board considers has contributed or contributes to the Group.

### (c) Total number of shares available for issue

(i) The limit on the number of Shares which may be issued upon the exercise of all outstanding options granted and yet to be exercised under the 2007 Share Option Scheme and any other share option schemes of the Company must not, in aggregate, exceed 30% of the Shares in issue from time to time.

(ii) Subject to paragraph (i) above, the total number of Shares which may be issued upon exercise of all options to be granted under the 2007 Share Option Scheme and any other share option schemes of the Company must not in aggregate, exceed 10% of the Shares in issue on 16 May 2014 (the "**2007 Scheme Limit**") unless approval of Shareholders has been obtained. Options lapsed in accordance with the terms of the 2007 Share Option Scheme will not be counted for the purpose of calculating the 2007 Scheme Limit.

(iii) Subject to paragraph (i) above, the Company may refresh the 2007 Scheme Limit at any time subject to prior Shareholders' approval provided that the limit as "refreshed" must not exceed 10% of the Shares in issue as at the date of the aforesaid Shareholders' approval. Options previously granted under the 2007 Share Option Scheme and other share option schemes (including those outstanding, cancelled, lapsed in accordance with the 2007 Share Option Scheme or other share option scheme or exercised options) will not be counted for the purpose for calculating the limit as renewed.

(iv) Subject to paragraph (i) above, the Company may also seek separate Shareholders' approval for granting options beyond the 2007 Scheme Limit to participants specifically identified by the Company.

(v) As at the latest practicable date prior to the issue of this annual report, no further options could be granted under the 2007 Share Option Scheme and 33,597,000 Shares were available for issue for the outstanding options under the 2007 Share Option Scheme, representing approximately 2.98% of the total issued share capital of the Company at that date.

**(d) Maximum entitlement of each participant**

The total number of Shares issued and to be issued upon exercise of the options granted to each participant (including both exercised and outstanding options) in any 12-month period must not exceed 1% of the relevant class of the Shares in issue from time to time. Any further grant of options to such participant beyond the limit must be subject to Shareholders' approval with such participant and his or her associates abstaining from voting.

**(e) Option period**

An option may be exercised at any time during the period to be determined and notified by the Board to each grantee and in any event such period of time shall not be more than ten years from the date on which the option is granted.

**(f) Vesting period of the options granted**

There is no general requirement that an option must be held for any minimum period before it can be exercised, but the Board may impose restrictions on the exercise of an option during the option period.

**(g) Consideration on acceptance of the option**

The grantee shall pay HK$1.00 to the Company by way of consideration for the grant upon acceptance of the option.

**(h) Basis of determining the exercise price of option granted**

The subscription price will be determined by the Board in its absolute discretion and will be no less than the highest of:

(i) the closing price of the Shares as stated in the daily quotations sheet issued by the Stock Exchange on the date of offer of the option;

(ii) the average closing price of the Shares as stated in the daily quotation sheets issued by the Stock Exchange for the five trading days immediately preceding the offer date; and

(iii) the nominal value of a Share at the time of exercise of an option.

**(i) Remaining life of the 2007 Share Option Scheme**

The 2007 Share Option Scheme expired on 10 June 2017.

Details of the share options granted under the 2007 Share Option Scheme and 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 2022 | 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 2022 | 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 | - | 34,704,000 | - | - | - | (1,080,000) | 33,624,000 | 2.98% |
| | | | | | | 34,794,000 | - | - | - | (1,080,000) | 33,714,000 | 2.99% |

The vesting period of all the outstanding share options is the period beginning on the date of grant and ending on the date immediately before commencement of the exercise period.

On 18 May 2018, the Company by ordinary resolution approved the adoption of a new share option scheme (the "**2018 Share Option Scheme**"). No options have yet been granted under the 2018 Share Option Scheme.

The following is a summary of the terms of the 2018 Share Option Scheme:

**(a) Purpose**

To reward the participants who have contributed to the Group.

**(b) Participants**

As per existing terms of the 2018 Share Option Scheme, participants of the scheme may be any party falling within any one or more of the following items (i) to (v) whom the Board considers, in its sole discretion, has contributed or contributes to the Group:

(i) all full-time employees, Directors (including independent non-executive Directors) and part-time employees with weekly working hours of 10 hours and above, of the Group;

(ii) substantial shareholders of each member of the Group;

(iii) associates of the directors and substantial shareholders of any member of the Group;

(iv) trustee of any trust pre-approved by the Board; and

(v) any advisor (professional or otherwise), consultant, distributor, supplier, agent, customer, joint venture partner, service provider to the Group.

### (c) Total number of shares available for issue

(i) The overall limit on the number of Shares which may be issued upon exercise of all outstanding options granted and yet to be exercised under the 2018 Share Option Scheme and any other share option schemes of the Company must not exceed 30% of the Shares in issue from time to time.

(ii) Subject to sub-paragraph (i) above, the Shares which are the subject to options to be granted under the 2018 Share Option Scheme and any other share option schemes of the Company must not, in aggregate, exceed 10% of the Shares in issue on 18 May 2018, the date of approval of the scheme by the Shareholders (the "**2018 Scheme Limit**") unless approval of the Shareholders has been obtained pursuant to sub-paragraphs (iii) and (iv). Options lapsed in accordance with the terms of the 2018 Share Option Scheme and any other share option schemes of the Company will not be counted for the purpose of calculating the 2018 Scheme Limit.

(iii) Subject to sub-paragraph (i) above, the Company may refresh the 2018 Scheme Limit at any time subject to prior Shareholders' approval. However, the 2018 Scheme Limit as "refreshed" must not exceed 10% of the Shares in issue as at the date of the aforesaid Shareholders' approval. Options previously granted under the 2018 Share Option Scheme and any other share option schemes (including those outstanding, cancelled, lapsed in accordance with the 2018 Share Option Scheme or any other share option scheme or exercised options) will not be counted for the purpose for calculating the limit as "refreshed". A circular containing information and the disclaimer required under the Listing Rules must be sent to Shareholders in connection with the meeting at which their approval will be sought.

(iv) Subject to sub-paragraph (i) above, the Company may also seek separate Shareholders' approval for granting options beyond the 2018 Scheme Limit to participants specifically identified by the Company before the aforesaid Shareholders' meeting where such approval is sought.

(v) As at the latest practicable date prior to the issue of this annual report, 112,654,650 Shares were available for issue under the 2018 Share Option Scheme, representing approximately 10% of the total issued share capital of the Company at that date.

### (d) Maximum entitlement of each participant

The total number of Shares issued and to be issued upon exercise of the options granted to each participant (including both exercised and outstanding options) in any 12-month period must not exceed 1% of the relevant class of the Shares in issue from time to time. Any further grant of options to such participant beyond the limit must be subject to Shareholders' approval with such participant and his or her associates abstaining from voting.

### (e) Option period

An option may be exercised at any time during a period to be determined and notified by the Board to each grantee and in any event such period of time shall not be more than ten years from the date on which the option is granted.

**(f) Vesting period of the options granted**

There is no general requirement that an option must be held for any minimum period before it can be exercised, but the Board may impose restrictions on the exercise of an option during the option period.

**(g) Consideration on acceptance of the option**

The grantee shall pay HK$1.00 to the Company by way of consideration for the grant upon acceptance of the option.

**(h) Basis of determining the exercise price of option granted**

The subscription price will be determined by the Board in its absolute discretion and will be no less than the highest of:

(i) the closing price of the Shares as stated in the daily quotations sheet issued by the Stock Exchange on the date of offer of the option;

(ii) the average closing price of the Shares as stated in the daily quotation sheets issued by the Stock Exchange for the five trading days immediately preceding the offer date; and

(iii) the nominal value of a Share.

**(i) Remaining life of the 2018 Share Option Scheme**

The 2018 Share Option Scheme shall be valid and effective for a period of ten years commencing on 18 May 2018, the effective date of the scheme, and will expire on 17 May 2028.

Further details of the 2007 Share Option Scheme and the 2018 Share Option Scheme are set out in Note 37 to the financial statements.

As at 31 December 2022, no further options could be granted under the 2007 Share Option Scheme. For the 2018 Share Option Scheme, 112,654,650 options were available for grant under the 2018 Scheme Limit at the beginning and the end of the reporting period. No option was granted under all schemes of the Company during the reporting period.

## 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 letter of appointment of Mr. Huang Dongliang with the Company expired on 10 June 2010. Thereafter, the term has been renewed for a further term of one year in each year. Mr. Zhang Yong (appointed with effect from 8 August 2018) has signed the letter of appointment with the Company for an initial period of three years commencing 8 August 2018. Mr. Xia Yongyao (appointed with effect from 30 June 2021 and resigned with effect from 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 with effect from 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 that 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 employees' 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 amounted to 14.77% of the Group's turnover. The largest customer accounted for 4.88% of the Group's total turnover. During the Year, the Group's five largest suppliers accounted for 18.29% of the Group's total purchase and the largest supplier accounted for 5.80% 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 at the same time as this annual report is published.

## 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 2022.

## Donations

During the year ended 31 December 2022, the Group made charitable donations of approximately RMB2.0012 million (2021: RMB3.5677 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 2022 as required under the Listing Rules.

## Auditor

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

On behalf of the Board

**Zhang Aogen**
*Director*

Hong Kong, 24 March 2023

## Continuing Connected Transactions

## Master Purchase Agreement

### Background

As set out in the announcement of the Company 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, and upon 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 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.

## Continuing Connected Transaction (Continued)

## Annual caps

The estimated aggregate consideration for the transactions under the 2021-23 MPA for the year ended 31 December 2022 was approximately RMB580,000,000.

## Actual transaction values for the Year

The total transaction amount under the 2022-23 MPA entered into with Zhejiang Changtong for the year ended 31 December 2022 was approximately RMB574,942,000.

### Master Services Agreement

#### Background

As set out in the announcement of the Company dated 29 April 2022, on 29 April 2022, Tianneng Holding Group Co., Ltd.* (天能控股集團有限公司) ("**Tianneng Holding**"), an indirect wholly-owned subsidiary of the Company, and Zhejiang Changneng Commercial Management Company Limited* (浙江暢能商業管理有限公司) ("**Zhejiang Changneng**") entered into the master services agreement (the "**Master Services Agreement**") in relation to the provision of labour and leasing services between the Group, and Zhejiang Changneng, its subsidiaries, associates and other controlled entities (collectively, the "Zhejiang Changneng Group") for a term of three years commencing from 1 January 2022 to 31 December 2024.

Zhejiang Changneng is a wholly-owned subsidiary of Tianchang Holding Co., Ltd.* (天暢控股有限公司) ("**Tianchang Holding**"), which is in turn owned as to 98% by Dr. Zhang Tianren, who is the controlling shareholder and an executive Director of the Company and the remaining 2% by Dr. Zhang Tianren's son, Mr. Zhang Hao (張昊). Accordingly, Zhejiang Changneng is a connected person of the Company under the Listing Rules.

Pursuant to the Master Services Agreement, the Zhejiang Changneng Group shall provide the labour services in respect of catering, property management and conference services to the Group and the Group shall provide leasing services in respect of certain properties and/or ancillary equipment and facilities to the Zhejiang Changneng Group, from time to time. The Group shall enter into separate agreements to set out the specific provisions of the labour services and the leasing of properties and ancillary equipment and facilities with the Zhejiang Changneng Group.

#### Reasons for the transaction

In the course of its daily production and operation, the Group conducts continuing connected transactions with the Zhejiang Changneng Group in relation to the labour and leasing services. In order to better regulate such continuing connected transactions under the Listing Rules, the Company and Zhejiang Changneng entered into the Master Services Agreement.

### Pricing policy

The price for provision of labour and leasing services shall be determined in accordance with the following principles:

(i) the prices prescribed by the government of the PRC or any regulatory authority(ies) (if any) ("**government prescribed prices**") or the pricing guidelines or prices to be determined by the parties within the range as set by the government of the PRC or any regulatory authority(ies) (if any) ("**government-guided prices**");

(ii) the market prices determined in accordance with the prevailing prices charged by independent third parties providing the same types of services on normal commercial terms, where none of the government prescribed prices or government-guided prices are available or applicable; and

(iii) the agreed prices based on the actual or reasonable cost incurred thereof plus a reasonable profit (which is determined with reference to the nature and historical price of services, current market price (if applicable) of the similar services and the Group's forecasted demand and increase in the market price of such services in the remaining term), where none of the above pricing principles are available or applicable.

All transactions contemplated under the Master Services Agreement shall be conducted at the price and/or payment terms which shall be fair and reasonable to the Group and no less favourable to the Group than those offered by the independent third parties.

### Annual Caps

For the year ended 31 December 2022, the estimated aggregate consideration for the provision of the labour services by the Zhejiang Changneng Group under the Master Services Agreements paid by the Group to the Zhiejiang Changneng Group was approximately RMB19,500,000; and the estimated aggregate consideration for the provision of the leasing services by the Group under the Master Services Agreements paid by the Zhejiang Changneng Group to the Group was approximately RMB500,000.

### Actual Transaction values for the Year

The total transaction amount under the Master Services Agreement for the year ended 31 December 2022 was as follows:

- Amount paid by the Group to the Zhejiang Changneng Group for the provision of the labour services by the Zhejiang Changneng Group: approximately RMB7,313,000.

- Amount paid by the Zhejiang Changneng Group to the Group for the provision of the leasing services by the Group: approximately RMB75,000.

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 Stock Exchange.

## Connected Transaction

### Capital Increase Agreement

As set out in the announcement of the Company dated 27 May 2022, on 26 May 2022, Tianneng Holding, Zhejiang Tianneng Commercial Management Co., Ltd.* (浙江天能商業管理有限公司)("**Tianneng Management**") (an indirect wholly-owned subsidiary of the Company), Tianchang Holding and Zhejian Tianneng New Materials Co., Ltd.* (浙江天能新材料有限公司)("**Tianneng New Materials**") entered into the capital increase agreement (the "**Capital Increase Agreement**"), pursuant to which Tianneng Management and Tianchang Holding agreed to make capital contributions (the "**Capital Injection**") of RMB35,686,300 and RMB89,215,700 to Tianneng New Materials, respectively.

Before completion of the Capital Injection, Tianneng New Materials was a wholly-owned subsidiary of Tianneng Holding. Upon completion of the Capital Injection, the equity interest in Tianneng New Materials is owned as to 51%, 14% and 35% by Tianneng Holding, Tianneng Management and Tianchang Holding, respectively. Tianneng New Materials continues to be an indirect subsidiary of the Company.

The capital contribution amount pursuant to the Capital Increase Agreement was determined with reference to the appraised value of Tianneng New Materials of approximately RMB130 million as at 31 March 2022, after arm's length negotiations between the parties on normal commercial terms after taking into account the potential capital needs of Tianneng New Materials.

Both Tianneng Holding and Tianneng Management  are indirect wholly-owned subsidiaries of the Company. As the Group's equity interest in Tianneng New Materials (through Tianneng Holding and Tianneng Management) decreases from 100% to 65% upon completion of the Capital Injection, the capital injection from Tianchang Holding constitutes a deemed disposal for the Company under Rule 14.29 of the Listing Rules. Given that all of the applicable percentage ratios calculated pursuant to Rule 14.07 of the Listing Rules in respect of the capital injection from Tianchang Holding are less than 5%, transactions under the Capital Increase Agreement are therefore exempt from all reporting, announcement, circular and shareholders' approval requirements under Chapter 14 of the Listing Rules.

As Tianchang Holding is an associate of Dr. Zhang Tianren and a connected person of the Company pursuant to the Listing Rules as described above, the entering into of the Capital Increase Agreement constitutes connected transaction of the Company under Chapter 14A of the Listing Rules. As all of the applicable percentage ratios in respect of transactions under the Capital Increase Agreement exceed 0.1% but are less than 5%, the transactions are subject to the reporting and announcement requirements but exempt from the circular and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules.

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 transactions under the 2021-23 MPA, Master Services Agreement and the Capital Increase Agreement (which are subject to disclosure and/or independent Shareholders' approval requirements).  Save for the aforementioned, other related party transactions as set out in note 45 to the financial statements did not constitute connected transaction/continuing connected transaction under the Listing Rules.

*　　for identification purpose only

Deloitte. 德勤

**TO THE MEMBERS 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 69 to 154, which comprise the consolidated statement of financial position as at 31 December 2022, 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 2022, 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 ("**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.

## Key Audit Matters (Continued)

| Key audit matter | How our audit addressed the key audit matter |
|---|---|
| Cut-off of revenue recognition from contracts with customers | |
| As stated in notes 5 and 6 to the consolidated financial statements, operating profit of the Group was substantially contributed by the manufacturing business segment, in which the sales of lead-acid battery products represented over 85% of revenue from the manufacturing business segment. The sales of lead-acid battery products are recognised at a point in time when the control of the goods is transferred to the customers based on the management's estimation on the date when the customers receive the goods.<br><br>We identified the cut-off of revenue from sales of lead-acid battery products as a key audit matter because revenue is one of the key performance indicators of the Group which increase the risk of early recognition of revenue prior to transferring risk and reward to the customers. | Our audit procedures in relation to cut-off of revenue recognition of sales of lead-acid battery products, included:<br><br>– Understanding the business process of revenue recognition of sales of lead-acid battery products, and evaluating the design, implementation and operating effectiveness of key controls relevant to the cut-off of revenue recognition;<br><br>– Reviewing the contracts for sales of lead-acid battery products, on a sample basis, to assess whether the Group's revenue recognition policy is in compliance with HKFRS 15 *Revenue from Contracts with Customers*;<br><br>– Testing, on a sample basis, the recorded revenue before year end by examining the underlying supporting evidences related to the respective sales transactions and delivery arrangement, including the delivery terms, logistic information, to assess whether the sales transactions are recorded in the correct financial period; and<br><br>– Interviewing the logistic suppliers, on a sample basis, to evaluate the reasonableness of the receipt date estimated by the management. |

## Other Matter

The consolidated financial statements of the Group for the year ended 31 December 2021 were audited by another auditor who expressed an unmodified opinion on those statements on 30 March 2022.

## Other Information

The directors of the Company are responsible for the other information. The other information comprises the information included in the 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 and Those Charged with Governance for the Consolidated Financial Statements

The directors of the Company 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.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

## 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 solely to you, as a body, in accordance with our agreed terms of engagement, 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.

As part of an audit in accordance with HKSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Wong Shun Yu.

**Deloitte Touche Tohmatsu**
*Certified Public Accountants*
Hong Kong
24 March 2023

# CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2022

| | NOTES | Year ended 31 December<br>**2022**<br>**RMB'000** | <br>2021<br>RMB'000 |
|---|---|---|---|
| Revenue | 5 | **74,598,641** | 85,615,917 |
| Cost of sales | | **68,209,336** | (80,994,895) |
| Gross profit | | **6,389,305** | 4,621,022 |
| Other income | 7 | **1,106,402** | 1,094,307 |
| Other gains and losses | 8 | **(57,443)** | 1,669 |
| Impairment losses under expected credit loss model, net of reversal | 9 | **(143,062)** | (113,459) |
| Distribution and selling expenses | | **(1,229,444)** | (1,037,235) |
| Administrative expenses | | **(1,362,895)** | (989,376) |
| Research and development costs | | **(1,622,379)** | (1,483,162) |
| Share of results of associates | | **(905)** | (2,735) |
| Finance costs | 10 | **(340,738)** | (254,089) |
| **Profit before tax** | | **2,738,841** | 1,836,942 |
| Income tax expense | 11 | **(659,163)** | (285,730) |
| **Profit for the year** | 12 | **2,079,678** | 1,551,212 |
| **Other comprehensive income (expense)** | | | |
| *Item that will not be reclassified to profit or loss:* | | | |
| Fair value gain (loss) on investments in equity instruments at fair value through other comprehensive income ("**FVTOCI**"), net of income tax | | **46,142** | (104,611) |
| *Item that may be reclassified subsequently to profit or loss:* | | | |
| Fair value gain on debt instruments measured at FVTOCI, net of income tax | | **5,687** | 6,494 |
| Other comprehensive income (expense) for the year, net of income tax | | **51,829** | (98,117) |
| **Total comprehensive income for the year** | | **2,131,507** | 1,453,095 |
| **Profit for the year attributable to:** | | | |
| Owners of the Company | | **1,796,385** | 1,299,952 |
| Non-controlling interests | | **283,293** | 251,260 |
| | | **2,079,678** | 1,551,212 |
| **Total comprehensive income attributable to:** | | | |
| Owners of the Company | | **1,848,214** | 1,201,835 |
| Non-controlling interests | | **283,293** | 251,260 |
| | | **2,131,507** | 1,453,095 |
| **Earnings per share** | 15 | | |
| *– Basic (RMB cents)* | | **160** | 115 |
| *– Diluted (RMB cents)* | | **157** | 113 |

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2022

| | NOTES | As at 31 December 2022 RMB'000 | 2021 RMB'000 |
|---|---|---|---|
| **Non-current Assets** | | | |
| Property, plant and equipment | 16 | **8,486,582** | 6,504,488 |
| Right-of-use assets | 17 | **1,249,263** | 1,099,183 |
| Goodwill | | **499** | 23,305 |
| Interests in associates | 18 | **228,227** | 36,115 |
| Equity instruments at FVTOCI | 19 | **324,083** | 267,489 |
| Deferred tax assets | 20 | **790,922** | 688,263 |
| Deposits for acquisition of property, plant and equipment | | **973,742** | 743,273 |
| Loan receivables | 24 | **333,436** | 284,928 |
| Long-term receivables | | **–** | 5,136 |
| Pledged/restricted bank deposits | 27 | **1,210,000** | – |
| | | **13,596,754** | 9,652,180 |
| **Current Assets** | | | |
| Inventories | 21 | **6,840,510** | 4,484,624 |
| Properties under development for sale | 22 | **860,626** | 768,189 |
| Bills, trade and other receivables | 23 | **5,041,205** | 3,328,917 |
| Loan receivables | 24 | **930,503** | 203,954 |
| Amounts due from related parties | 29 | **1,478** | 3,479 |
| Amount due from an associate | 29 | **–** | 70,000 |
| Debt instruments at FVTOCI | 25 | **798,005** | 987,055 |
| Financial assets at fair value through profit or loss ("**FVTPL**") | 26 | **350,439** | 1,600,095 |
| Pledged/restricted bank deposits | 27 | **3,720,595** | 2,943,087 |
| Time deposits | 27 | **450,000** | – |
| Cash and cash equivalents | 27 | **7,545,808** | 8,697,364 |
| | | **26,539,169** | 23,086,764 |
| **Current Liabilities** | | | |
| Bills, trade and other payables | 28 | **11,958,681** | 8,923,504 |
| Amounts due to related parties | 29 | **316,228** | 239,970 |
| Derivative financial instruments | | **–** | 263 |
| Taxation liabilities | | **499,543** | 348,748 |
| Borrowings | 30 | **4,558,209** | 2,874,839 |
| Lease liabilities | 31 | **11,608** | 8,727 |
| Provision | 32 | **697,428** | 720,292 |
| Contract liabilities | 33 | **2,331,915** | 2,129,216 |
| Deferred government grants | 34 | **–** | 42,026 |
| | | **20,373,612** | 15,287,585 |
| **Net Current Assets** | | **6,165,557** | 7,799,179 |
| **Total Assets less Current Liabilities** | | **19,762,311** | 17,451,359 |
| **Non-current Liabilities** | | | |
| Deferred tax liabilities | 20 | **94,424** | 60,407 |
| Borrowings | 30 | **1,624,218** | 1,408,682 |
| Lease liabilities | 31 | **13,437** | 13,637 |
| Deferred government grants | 34 | **864,058** | 591,701 |
| | | **2,596,137** | 2,074,427 |
| | | **17,166,174** | 15,376,932 |

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 31 December 2022

| | NOTES | As at 31 December<br>**2022**<br>**RMB'000** | <br>2021<br>RMB'000 |
|---|---|---|---|
| **Capital and Reserves** | | | |
| Share capital | 35 | **109,850** | 109,850 |
| Share premium and reserves | 36 | **14,334,266** | 12,870,646 |
| Equity attributable to the owners of the Company | | **14,444,116** | 12,980,496 |
| Non-controlling interests | | **2,722,058** | 2,396,436 |
| **Total Equity** | | **17,166,174** | 15,376,932 |

The consolidated financial statements on pages 69 to 154 were approved and authorised for issue by the board of directors on 24 March 2023 and are signed on its behalf by:

**Dr. ZHANG Tianren**
*DIRECTOR*

**Mr. ZHANG Aogen**
*DIRECTOR*

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2022

| | Attributable to owners of the Company | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Share capital** RMB'000 | **Share premium** RMB'000 | **Special reserve** RMB'000 (note 36) | **Capital reserve** RMB'000 (note 36) | **Share options reserve** RMB'000 | **Investment revaluation reserve** RMB'000 | **Other FVTOCI reserve** RMB'000 | **Statutory surplus reserve fund** RMB'000 (note 36) | **Discretionary surplus reserve fund** RMB'000 (note 36) | **Accumulated profits** RMB'000 | **Subtotal** RMB'000 | **Non-controlling interests** RMB'000 | **Total** RMB'000 |
| 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 (expense) income for the year | – | – | – | – | – | (104,611) | 6,494 | – | – | – | (98,117) | – | (98,117) |
| Total comprehensive (expense) 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 contribution from non-controlling interests | – | – | – | – | – | – | – | – | – | – | – | 180,349 | 180,349 |
| Issue of shares of a subsidiary | – | – | – | 3,407,043 | – | – | – | – | – | 3,407,043 | 1,322,690 | 4,729,733 | |
| Dividend recognised as distribution (note 14) | – | – | – | – | – | – | – | – | – | (374,810) | (374,810) | – | (374,810) |
| Dividend paid/payable to non-controlling interests | – | – | – | – | – | – | – | – | – | – | – | (84,040) | (84,040) |
| Forfeiture of equity-settled share-based payment | – | – | – | – | (1,629) | – | – | – | – | 1,897 | 268 | (268) | – |
| Recognition of equity-settled share based payment (note 37) | – | – | – | – | – | – | – | – | – | – | – | 13,316 | 13,316 |
| 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 |
| Profit for the year | – | – | – | – | – | – | – | – | – | 1,796,385 | 1,796,385 | 283,293 | 2,079,678 |
| Other comprehensive income for the year | – | – | – | – | – | 46,142 | 5,687 | – | – | – | 51,829 | – | 51,829 |
| Total comprehensive income for the year | – | – | – | – | – | 46,142 | 5,687 | – | – | 1,796,385 | 1,848,214 | 283,293 | 2,131,507 |
| Transfer | – | – | – | – | – | – | – | 263,290 | – | (263,290) | – | – | – |
| Capital contribution from non-controlling interests | – | – | – | – | – | – | – | – | – | – | – | 96,511 | 96,511 |
| Dividend recognised as distribution (note 14) | – | – | – | – | – | – | – | – | – | (384,594) | (384,594) | – | (384,594) |
| Dividend paid/payable to non-controlling interests | – | – | – | – | – | – | – | – | – | – | – | (117,933) | (117,933) |
| Disposal of investments in equity instruments at FVTOCI | – | – | – | – | – | (102) | – | – | – | 102 | – | – | – |
| Acquisition of a subsidiary | – | – | – | – | – | – | – | – | – | – | – | 73,943 | 73,943 |
| Disposal of subsidiaries (note 39) | – | – | – | – | – | – | – | – | – | – | – | (17,836) | (17,836) |
| Forfeiture of equity-settled share-based payment | – | – | – | – | (1,112) | – | – | – | – | 1,112 | – | – | – |
| Recognition of equity-settled share based payment (note 37) | – | – | – | – | – | – | – | – | – | – | – | 7,644 | 7,644 |
| At 31 December 2022 | 109,850 | 778,567 | 10,000 | 3,658,601 | 34,243 | (170,678) | – | 1,386,221 | 143,212 | 8,494,100 | 14,444,116 | 2,722,058 | 17,166,174 |

# CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2022

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| **Operating activities** | | |
| Profit before tax | **2,738,841** | 1,836,942 |
| Adjustments for: | | |
| Interest income | **(314,934)** | (218,204) |
| Amortisation of deferred government grants | **(40,111)** | (46,123) |
| Dividend income | **(9,692)** | (10,881) |
| Finance costs | **340,738** | 254,089 |
| Share of results of associates | **905** | 2,735 |
| Depreciation of property plant and equipment | **726,843** | 572,622 |
| Depreciation of right-of-use assets | **42,314** | 29,954 |
| Loss on disposal/write-off of property, plant and equipment | **66,464** | 45,985 |
| Impairment losses under ECL model, net of reversal | **143,062** | 113,459 |
| Recognition of allowance for inventories | **96,392** | 12,888 |
| Share-based payments | **7,644** | 13,316 |
| Gains on structured bank deposits | **(67,382)** | (73,274) |
| Fair value change of investments in listed equity securities | **15,438** | 14,074 |
| Fair value change of derivative financial instruments | **(59,064)** | (21,352) |
| Gain on disposal of subsidiaries | **(53,332)** | – |
| Net foreign exchange losses (gains) | **133,629** | (2,713) |
| Operating cash flows before movements in working capital | **3,767,755** | 2,523,517 |
| Increase in inventories | **(2,459,245)** | (11,612) |
| Increase in properties under development for sale | **(219,192)** | (378,493) |
| Increase in bills, trade and other receivables | **(1,796,258)** | (1,056,762) |
| Decrease in debt instruments at FVTOCI | **196,631** | 1,088,804 |
| Increase in bills, trade and other payables | **2,769,722** | 1,369,089 |
| Increase (decrease) in contract liabilities | **203,357** | (812,154) |
| (Decrease) increase in provision | **(22,864)** | 97,983 |
| Increase in amounts due to related parties | **76,258** | 97,662 |
| Decrease in amounts due from related parties | **2,001** | 9,996 |
| **Cash generated from operations** | **2,518,165** | 2,928,030 |
| Interest paid | **(339,293)** | (250,558) |
| Income tax paid | **(589,356)** | (572,862) |
| **Net cash from operating activities** | **1,589,516** | 2,104,610 |

# CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 31 December 2022

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| **Investing activities** | | |
| Interest received | **314,934** | 182,552 |
| Acquisition of investments in associates | **(93,657)** | (18,180) |
| Disposal of investment in an associate | **3,000** | – |
| Dividend income | **9,692** | 10,881 |
| Proceeds from disposal of property, plant and equipment | **43,778** | 65,120 |
| Purchase of property, plant and equipment | **(1,949,068)** | (1,529,605) |
| Purchases of equity instruments at FVTPL | **(5,500)** | (6,800) |
| Purchases of equity instruments at FVTOCI | **–** | (45,000) |
| Cash inflow from derivative financial instruments | **47,560** | 24,737 |
| Placement of pledged/restricted bank deposits | **(4,930,595)** | (2,943,087) |
| Withdrawal of pledged/restricted bank deposits | **2,943,087** | 1,303,060 |
| Placement of time diposits | **(450,000)** | – |
| Placement of structured bank deposits | **(8,892,026)** | (14,342,000) |
| Withdrawal of structured bank deposits | **10,210,367** | 13,377,374 |
| Asset-related government grants received | **270,442** | 131,318 |
| Deposit for acquisition of property, plant and equipment | **(973,742)** | (498,896) |
| Acquisition of a subsidiary | **16,625** | – |
| Disposal of subsidiaries | **64,022** | – |
| Acquisition of right-of-use assets | **(106,385)** | (327,269) |
| Advance to an associate | **–** | (70,000) |
| Payment to independent third parties for loan receivables | **(996,089)** | (437,579) |
| Receipt of repayment for loan receivables | **262,270** | 175,012 |
| **Net cash used in investing activities** | **(4,211,285)** | (4,948,362) |
| **Financing activities** | | |
| New borrowings raised | **7,957,645** | 8,174,885 |
| Repayments of borrowings | **(6,161,938)** | (5,529,463) |
| Dividends paid | **(282,012)** | (374,810) |
| Dividends paid to non-controlling interests | **(117,933)** | (84,040) |
| Capital contribution from a non-controlling shareholder | **96,511** | 180,349 |
| Proceeds from issue of shares of a subsidiary | **–** | 4,729,733 |
| Repayment of lease liabilities | **(22,060)** | (11,843) |
| **Net cash from financing activities** | **1,470,213** | 7,084,811 |
| **Net (decrease) increase in cash and cash equivalents** | **(1,151,556)** | 4,241,059 |
| Cash and cash equivalents at the beginning of the year | **8,697,364** | 4,456,305 |
| **Cash and cash equivalents at the end of the year, represented by bank balances and cash** | **7,545,808** | 8,697,364 |
| **Analysis of cash and cash equivalents** | | |
| Bank balances and cash | **7,545,808** | 8,697,364 |

## 1. GENERAL

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 the manufacture and sales of lead-acid battery products, lithium-ion battery products and recycled materials and trading of materials. 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. APPLICATION OF AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs")

### Amendments to HKFRSs that are mandatorily effective for the current year

In the current year, the Group has applied the following amendments to HKFRSs issued by the Hong Kong Institute of Certified Public Accountants ("**HKICPA**") for the first time, which are mandatorily effective for the Group's annual period beginning on 1 January 2022 for the preparation of the consolidated financial statements:

| | |
|---|---|
| Amendments to HKFRS 3 | Reference to the Conceptual Framework |
| Amendment to HKFRS 16 | Covid-19-Related Rent Concessions beyond 30 June 2021 |
| Amendments to HKAS 16 | Property, Plant and Equipment – Proceeds before Intended Use |
| Amendments to HKAS 37 | Onerous Contracts – Cost of Fulfilling a Contract |
| Amendments to HKFRSs | Annual Improvements to HKFRSs 2018-2020 |

The application of the amendments to HKFRSs in the current year has had no material impact on the Group's financial positions and performance for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

## 2. APPLICATION OF AMENDMENTS TO HONG KONG FINANCIAL REPORTING STANDARDS ("HKFRSs") (Continued)

### New and amendments to HKFRSs in issue but not yet effective

The Group has not early applied the following new and amendments to HKFRSs that have been issued but are not yet effective:

| | |
|---|---|
| HKFRS 17 (including the October 2020 and February 2022 Amendments to HKFRS17) | Insurance Contracts[1] |
| Amendments to HKFRS 10 and HKAS 28 | Sale or Contribution of Assets between an Investor and its Associate or Joint Venture[2] |
| Amendments to HKFRS 16 | Lease Liability in a Sale and Leaseback[3] |
| Amendments to HKAS 1 | Classification of Liabilities as Current or Non-current and related amendments to Hong Kong Interpretation 5 (2020)[3] |
| Amendments to HKAS 1 | Non-current Liabilities with Covenants[3] |
| Amendments to HKAS 1 and HKFRS Practice Statement 2 | Disclosure of Accounting Policies[1] |
| Amendments to HKAS 8 | Definition of Accounting Estimates[1] |
| Amendments to HKAS 12 | Deferred Tax related to Assets and Liabilities arising from a Single Transaction[1] |

1 Effective for annual periods beginning on or after 1 January 2023.
2 Effective for annual periods beginning on or after a date to be determined.
3 Effective for annual periods beginning on or after 1 January 2024.

The directors of the Company anticipate that the application of all the new and amendments to HKFRSs will have no material impact on the consolidated financial statements in the foreseeable future.

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES

### 3.1 Basis of preparation of consolidated financial statements

The consolidated financial statements have been prepared in accordance with HKFRSs issued by the HKICPA. For the purpose of preparation of the consolidated financial statements, information is considered material if such information is reasonably expected to influence decisions made by primary users. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange ("**Listing Rules**") and by the Hong Kong Companies Ordinance.

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.1 Basis of preparation of consolidated financial statements (Continued)

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, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of HKFRS 2 *Share-based Payment*, leasing transactions that are accounted for in accordance with HKFRS 16 *Leases*, and measurements that have some similarities to fair value but are not fair value, such as net realisable value in HKAS 2 *Inventories* or value in use in HKAS 36 *Impairment of Assets*.

For financial instruments which are transacted at fair value and a valuation technique that unobservable inputs is to be used to measure fair value in subsequent periods, the valuation technique is calibrated so that at initial recognition the results of the valuation technique equals the transaction price.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;

- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and

- Level 3 inputs are unobservable inputs for the asset or liability.

## 3.2 Significant accounting policies

### Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

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

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

### Changes in the Group's interests in existing subsidiaries

Changes in the Group's interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's relevant components of equity and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries, including re-attribution of relevant reserves between the Group and the non-controlling interests according to the Group's and the non-controlling interests' proportionate interests.

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 owners of the Company.

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary and non-controlling interests (if any) are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the carrying amount of the assets (including goodwill), and liabilities of the subsidiary attributable to the owners of the Company. All amounts previously recognised in other comprehensive income in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable HKFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under HKFRS 9 *Financial Instruments* or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Business combinations

A business is an integrated set of activities and assets which includes an input and a substantive process that together significantly contribute to the ability to create outputs. The acquired processes are considered substantive if they are critical to the ability to continue producing outputs, including an organised workforce with the necessary skills, knowledge, or experience to perform the related processes or they significantly contribute to the ability to continue producing outputs and are considered unique or scarce or cannot be replaced without significant cost, effort, or delay in the ability to continue producing outputs.

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

For business combinations in which the acquisition date is on or after 1 January 2022, the identifiable assets acquired and liabilities assumed must meet the definitions of an asset and a liability in the *Conceptual Framework for Financial Reporting 2018 issued in June 2018* (the "**Conceptual Framework**") except for transactions and events within the scope of HKAS 37 *Provisions, Contingent Liabilities and Contingent Assets* or HK(IFRIC)-Int 21 *Levies*, in which the Group applies HKAS 37 or HK(IFRIC)-Int 21 instead of the Conceptual Framework to identify the liabilities it has assumed in a business combination. Contingent assets are not recognised.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

- deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with HKAS 12 *Income Taxes* and HKAS 19 *Employee Benefits* respectively;

- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with HKFRS 2 *Share-based Payment* at the acquisition date (see the accounting policy below);

- assets (or disposal groups) that are classified as held for sale in accordance with HKFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that standard; and

- lease liabilities are recognised and measured at the present value of the remaining lease payments (as defined in HKFRS 16) as if the acquired leases were new leases at the acquisition date, except for leases for which (a) the lease term ends within 12 months of the acquisition date; or (b) the underlying asset is of low value. Right-of-use assets are recognised and measured at the same amount as the relevant lease liabilities, adjusted to reflect favourable or unfavourable terms of the lease when compared with market terms.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Business combinations (Continued)

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after re-assessment, the net amount of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the relevant subsidiary's net assets in the event of liquidation are initially measured at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets or at fair value.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control), and the resulting gain or loss, if any, is recognised in profit or loss or other comprehensive income, as appropriate. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income and measured under HKFRS 9 would be accounted for on the same basis as would be required if the Group had disposed directly of the previously held equity interest.

### Goodwill

Goodwill arising on an acquisition of a business is carried at cost as established at the date of acquisition of the business (see the accounting policy above) less accumulated impairment losses, if any.

For the purposes of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or group of cash-generating units) that is expected to benefit from the synergies of the combination, which represent the lowest level at which the goodwill is monitored for internal management purposes and not larger than an operating segment.

A cash-generating unit (or group of cash-generating units) to which goodwill has been allocated is tested for impairment annually or more frequently when there is indication that the unit may be impaired. For goodwill arising on an acquisition in a reporting period, the cash-generating unit (or group of cash-generating units) to which goodwill has been allocated is tested for impairment before the end of that reporting period. If the recoverable amount is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit (or group of cash-generating units).

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Goodwill (Continued)

On disposal of the relevant cash-generating unit or any of the cash-generating unit within the group of cash-generating units, the attributable amount of goodwill is included in the determination of the amount of profit or loss on disposal. When the Group disposes of an operation within the cash-generating unit (or a cash-generating unit within a group of cash-generating units), the amount of goodwill disposed of is measured on the basis of the relative values of the operation (or the cash-generating unit) disposed of and the portion of the cash-generating unit (or the group of cash-generating units) retained.

The Group's policy for goodwill arising on the acquisition of associates is described below.

### Investments in associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting. The financial statements of associates used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate. Changes in net assets of the associate other than profit or loss and other comprehensive income are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

An investment in an associate is accounted for using the equity method from the date on which the investee becomes an associate. On acquisition of the investment in an associate, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Investments in associates (Continued)

The Group assesses whether there is an objective evidence that the interest in an associate may be impaired. When any objective evidence exists, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with HKAS 36 as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised is not allocated to any asset, including goodwill, that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with HKAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When the Group ceases to have significant influence over an associate, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss. When the Group retains an interest in the former associate and the retained interest is a financial asset within the scope of HKFRS 9, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition. The difference between the carrying amount of the associate and the fair value of any retained interest and any proceeds from disposing of the relevant interest in the associate is included in the determination of the gain or loss on disposal of the associate. In addition, the Group accounts for all amounts previously recognised in other comprehensive income in relation to that associate on the same basis as would be required if that associate had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in other comprehensive income by that associate or would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) upon disposal/partial disposal of the relevant associate.

When a group entity transacts with an associate of the Group, profits and losses resulting from the transactions with the associate are recognised in the consolidated financial statements only to the extent of interests in the associate that are not related to the Group.

### Revenue from contracts with customers

The Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### 3.2 Significant accounting policies (Continued)

**Revenue from contracts with customers (Continued)**

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates or enhances an asset that the customer controls as the Group performs; 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.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

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

**Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation**

The progress towards complete satisfaction of a performance obligation is measured based on output method, which is to recognise revenue on the basis of direct measurements of the value of the services transferred to the customer to date relative to the remaining services promised under the contract, that best depict the Group's performance in transferring control of services.

**Existence of significant financing component**

In determining the transaction price, the Group adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed (either explicitly or implicitly) provides the customer or the Group with a significant benefit of financing the transfer of goods or services to the customer. In those circumstances, the contract contains a significant financing component. A significant financing component may exist regardless of whether the promise of financing is explicitly stated in the contract or implied by the payment terms agreed to by the parties to the contract.

For contracts where the period between payment and transfer of the associated goods or services is less than one year, the Group applies the practical expedient of not adjusting the transaction price for any significant financing component.

For advance payments received from customers before the transfer of the associated goods or services in which the Group adjusts for the promised amount of consideration for a significant financing component, the Group applies a discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. The relevant interest expenses during the period between the advance payments were received and the transfer of the associated goods and services are accounted for on the same basis as other borrowing costs.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Leases

Definition of a lease

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

For contracts entered into or modified on or after the date of initial application or arising from business combinations, the Group assesses whether a contract is or contains a lease based on the definition under HKFRS 16 at inception, modification date or acquisition date, as appropriate. Such contract will not be reassessed unless the terms and conditions of the contract are subsequently changed.

The Group as a lessee

*Allocation of consideration to components of a contract*

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

The Group applies practical expedient not to separate non-lease components from lease component, and instead account for the lease component and any associated non-lease components as a single lease component.

*Short-term leases*

The Group applies the short-term lease recognition exemption to leases of some temporary staff dormitories that have a lease term of 12 months or less from the commencement date and do not contain a purchase option. Lease payments on short-term leases are recognised as expense on a straight-line basis over the lease term.

*Right-of-use assets*

The cost of right-of-use assets includes:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any lease incentives received; and
- any initial direct costs incurred by the Group.

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities.

Right-of-use assets in which the Group is reasonably certain to obtain ownership of the underlying leased assets at the end of the lease term are depreciated from commencement date to the end of the useful life. Otherwise, right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

The Group presents right-of-use assets as a separate line item on the consolidated statement of financial position.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Leases (Continued)

The Group as a lessee (Continued)

*Refundable rental deposits*

Refundable rental deposits paid are accounted under HKFRS 9 and initially measured at fair value. Adjustments to fair value at initial recognition are considered as additional lease payments and included in the cost of right-of-use assets.

*Lease liabilities*

At the commencement date of a lease, the Group recognises and measures the lease liability at the present value of lease payments that are unpaid at that date. In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable.

The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable.

After the commencement date, lease liabilities are adjusted by interest accretion and lease payments.

The Group remeasures lease liabilities (and makes a corresponding adjustment to the related right-of-use assets) when the lease term has changed, in which case the related lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the date of reassessment.

The Group presents lease liabilities as a separate line item on the consolidated statement of financial position.

*Lease modifications*

The Group accounts for a lease modification as a separate lease if:

- the modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- the consideration for the leases increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, the Group remeasures the lease liability based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The Group accounts for the remeasurement of lease liabilities by making corresponding adjustments to the relevant right-of-use assets. When the modified contract contains one or more additional lease components, the Group allocates the consideration in the modified contract to each lease component on the basis of the relative stand-alone price of the lease component. The associated non-lease components are included in the respective lease components.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Leases (Continued)**

Sale and leaseback transactions

The Group applies the requirements of HKFRS 15 to assess whether sale and leaseback transaction constitutes a sale by the Group.

*The Group as a seller-lessee*

For a transfer that does not satisfy the requirements as a sale, the Group as a seller-lessee continues to recognise the assets and accounts for the transfer proceeds as borrowings within the scope of HKFRS 9.

**Foreign currencies**

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recognised at the rates of exchanges prevailing on the dates of transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. RMB) at exchange rate prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the date of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate).

**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 added to the cost of those assets until such time as the assets are substantially ready for their intended use or sale.

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

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Government grants

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred government grants in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants related to income that are 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. Such grants are presented under "other income".

### Employee benefits

Retirement benefit costs

Payments to defined contribution retirement benefit schemes are recognised as an expense when employees have rendered service entitling them to the contributions.

Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another HKFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries and annual leave) after deducting any amount already paid.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Share-based payments

Equity-settled share-based payment transactions

*Share options granted to employees*

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date.

The fair value of the equity-settled share-based payments determined at the grant date without taking into consideration all non-market vesting conditions is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity (share options reserve). At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest based on assessment of all relevant non-market vesting conditions. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to share options reserve.

When share options are exercised, the amount previously recognised in share-based payments reserve will be transferred to share premium. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in share-based payments reserve will be transferred to accumulated profits.

*Restricted shares of a subsidiary granted to employees*

For restricted shares granted under share award scheme of a subsidiary of the Company ("**Restricted Shares**"), the fair value of the employee services received is determined by reference to the fair value of the Restricted Shares granted at the grant date and is expensed on a straight-line basis over the vesting period, with a corresponding increase in equity (non-controlling interests). At the end of each reporting period, the Group revises its estimates of the number of Restricted Shares that are expected to vest based on assessment of all relevant non-market vesting conditions. The impact of the revision of the estimates, if any, is recognised in the profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to non-controlling interests.

When the Restricted Shares are vested, the amount previously recognised in non-controlling interests will continue to be held in non-controlling interests.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit before tax as reported in the consolidated statement of profit or loss and other comprehensive income because of income or expense that are taxable or deductible in other years and 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 temporary 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. Deferred tax assets are generally recognised for all temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill.

Deferred tax liabilities are recognised for taxable temporary differences associated with 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. Deferred tax assets arising from deductible temporary differences associated with such investments are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to 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 assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rate (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets 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.

For the purpose of measuring deferred tax of leasing transactions in which the Group recognises the right-of-use assets and the related lease liabilities, the Group first determines whether the tax deductions are attributable to right-of-use assets or the lease liabilities.

For leasing transactions in which the tax deductions are attributable to the lease liabilities, the Group applies HKAS 12 *Income Taxes* requirement to right-of-use assets and lease liabilities separately. Temporary differences on initial recognition of the relevant right-of-use assets and lease liabilities are not recognised due to application of the initial recognition exemption. Temporary difference arising from subsequent revision to carrying amounts of right-of-use assets and lease liabilities and lease modifications, that are not subject to initial recognition exemption are recognised on the date of remeasurement or modification.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Taxation (Continued)

Deferred tax assets and liabilities are offset when there is legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied to the same taxable entity by the same taxation authority.

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

### Property, plant and equipment

Property, plant and equipment are tangible assets that are held for use in the production or supply of goods or services, or for administrative purposes (other than construction in progress as described below). Property, plant and equipment are stated in the consolidated statement of financial position at cost less subsequent accumulated depreciation and subsequent accumulated impairment losses, if any.

Buildings in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Costs include any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, including costs of testing whether the related assets is functioning properly and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Sale proceeds of items that are produced while bringing an item of property, plant and equipment to the location and condition necessary for it to be capable of operating in the manner intended by management (such as samples produced when testing whether the asset is functioning properly), and the related costs of producing those items are recognised in the profit or loss. The cost of those items are measured in accordance with the measurement requirements of HKAS 2. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

When the Group makes payments for ownership interests of properties which includes both leasehold land and building elements, the entire consideration is allocated between the leasehold land and the building elements in proportion to the relative fair values at initial recognition. To the extent allocation of the relevant payments can be made reliably, interest in leasehold land that is accounted for as an operating lease is presented as "right-of-use assets" in the consolidated statement of financial position. When the consideration cannot be allocated reliably between non-lease building element and undivided interest in the underlying leasehold land, the entire properties are classified as property, plant and equipment.

Depreciation is recognised so as to write off the cost of items of property, plant and equipment, other than construction in progress, less their residual values over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Research and development expenditures

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 recognised in profit or loss in the period in which it is incurred.

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

### Impairment on property, plant and equipment and right-of-use assets

At the end of each reporting period, the Group reviews the carrying amounts of its property, plant and equipment and right-of-use assets 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 the impairment loss (if any).

The recoverable amount of property, plant and equipment and right-of-use assets are estimated individually. When it is not possible to estimate the recoverable amount individually, the Group estimates the recoverable amount of the cash generating unit to which the asset belongs.

In testing a cash-generating unit for impairment, corporate assets are allocated to the relevant cash-generating unit when a reasonable and consistent basis of allocation can be established, or otherwise they are allocated to the smallest group of cash generating units for which a reasonable and consistent allocation basis can be established. The recoverable amount is determined for the cash-generating unit or group of cash-generating units to which the corporate asset belongs, and is compared with the carrying amount of the relevant cash-generating unit or group of cash-generating units.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Impairment on property, plant and equipment and right-of-use assets (Continued)

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 (or a cash-generating unit) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. For corporate assets or portion of corporate assets which cannot be allocated on a reasonable and consistent basis to a cash-generating unit, the Group compares the carrying amount of a group of cash-generating units, including the carrying amounts of the corporate assets or portion of corporate assets allocated to that group of cash-generating units, with the recoverable amount of the group of cash-generating units. In allocating the impairment loss, the impairment loss is allocated first to reduce the carrying amount of any goodwill (if applicable) and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit or the group of cash-generating units. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit or the group of cash-generating units. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash generating unit or a group of cash-generating units) 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 had no impairment loss been recognised for the asset (or cash-generating unit or a group of cash-generating units) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

### Cash and cash equivalents

Cash and cash equivalents presented on the consolidated statement of financial position include:

(a) cash, which comprises of cash on hand and demand deposits, excluding bank balances that are subject to regulatory restrictions that result in such balances no longer meeting the definition of cash; and

(b) cash equivalents, which comprises of short-term (generally with original maturity of three months or less), highly liquid investments that are readily convertible to a known amount of cash and which are subject to an insignificant risk of changes in value. Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Inventories

Inventories are stated at the lower of cost and net realisable value. Costs of inventories are determined on a weighted average method. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale. Costs necessary to make the sale include incremental costs directly attributable to the sale and non-incremental costs which the Group must incur to make the sale.

Properties under development which are intended to be sold upon completion of development are classified as current assets. Except for the leasehold land element which is measured at cost model in accordance with the accounting policies of right-of-use assets, properties under development for sale are carried at the lower of cost and net realisable value. Cost is determined on a specific identification basis including allocation of the related development expenditure incurred and where appropriate, borrowing costs capitalised. Net realisable value represents the estimated selling price for the properties less estimated cost to completion and costs necessary to make the sales. Costs necessary to make the sale include incremental costs directly attributable to the sale and non-incremental costs which the Group must incur to make the sale.

Properties under development for sale are transferred to properties for sale upon completion.

### Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle that obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material).

Provisions for the expected cost of assurance-type warranty obligations under the relevant contracts with customers for sales of lead-acid motive battery products are recognised at the date of sale of the relevant products, at the directors' best estimate of the expenditure required to settle the Group's obligation.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instrument. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the market place.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with HKFRS 15. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets or financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period to the net carrying amount on initial recognition.

### Financial assets

#### Classification and subsequent measurement of financial assets

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that meet the following conditions are subsequently measured at FVTOCI:

- the financial asset is held within a business model whose objective is achieved by both selling and collecting contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Classification and subsequent measurement of financial assets (Continued)

All other financial assets are subsequently measured at FVTPL, except that at initial recognition of a financial asset the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if that equity investment is neither held for trading nor contingent consideration recognised by an acquirer in a business combination to which HKFRS 3 *Business Combinations* applies.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling in the near term; or
- on initial recognition it is a part of portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

In addition, the Group may irrevocably designate a financial asset that are required to be measured at the amortised cost or FVTOCI as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

*(i) Amortised cost and interest income*

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost and debt instruments/receivables subsequently measured at FVTOCI. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, expect for financial assets that have subsequently become credit-impaired. For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of the reporting period following the determination that the asset is no longer credit-impaired.

*(ii) Receivables classified as at FVTOCI*

Subsequent changes in the carrying amounts for receivables classified as at FVTOCI as a result of interest income calculated using the effective interest method are recognised in profit or loss. All other changes in the carrying amount of these receivables are recognised in other comprehensive income and accumulated under the heading of other FVTOCI reserve. Impairment allowances are recognised in profit or loss with corresponding adjustment to other comprehensive income without reducing the carrying amounts of these receivables. When these receivables are derecognised, the cumulative gains or losses previously recognised in other comprehensive income are reclassified to profit or loss.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Classification and subsequent measurement of financial assets (Continued)

*(iii) Equity instruments designated as at FVTOCI*

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the investment revaluation reserve; and are not subject to impairment assessment. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, and will be transferred to accumulated profits.

Dividends from these investments in equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the "other income" line item in profit or loss.

*(iv) Financial assets at FVTPL*

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss include any dividend or interest earned on the financial asset and is included in the "other gains and losses" line item.

*Impairment of financial assets subject to impairment assessment under HKFRS 9*

The Group performs impairment assessment under expected credit loss ("**ECL**") model on financial assets (including bills, trade and other receivables, loan receivables, amounts due from related parties, amount due from an associate, debt instruments at FVTOCI, pledged bank deposits, time deposits, bank balances and financial guarantee contracts) which are subject to impairment assessment under HKFRS 9. The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL ("**12m ECL**") represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Impairment of financial assets subject to impairment assessment under HKFRS 9 (Continued)

The Group always recognises lifetime ECL for trade receivables. The ECL on trade receivables are assessed individually for debtors credit-impaired and/or collectively using a provision matrix with appropriate groupings.

For all other instruments, the Group measures the loss allowance equal to 12m ECL, unless when there has been a significant increase in credit risk since initial recognition, in which case the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

(i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Impairment of financial assets subject to impairment assessment under HKFRS 9 (Continued)

(i) Significant increase in credit risk (Continued)

Despite the aforegoing, the Group assumes that the credit risk on a debt instrument has not increased significantly since initial recognition if the debt instrument is determined to have low credit risk at the reporting date. A debt instrument is determined to have low credit risk if i) it has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Group considers a debt instrument to have low credit risk when it has an internal or external credit rating of 'investment grade' as per globally understood definitions.

For financial guarantee contracts, the date that the Group becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of a financial guarantee contract, the Group considers the changes in the risk that the specified debtor will default on the contract.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

(ii) Definition of default

For internal credit risk management, the Group considers an event of default occurs when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Irrespective of the above, the Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Impairment of financial assets subject to impairment assessment under HKFRS 9 (Continued)

(iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

(a) significant financial difficulty of the issuer or the borrower;

(b) a breach of contract, such as a default or past due event;

(c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider; or

(d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganization.

(iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted and forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights. The Group uses a practical expedient in estimating ECL on trade receivables using a provision matrix taking into consideration historical credit loss experience, adjusted for forward looking information that is available without undue cost or effort.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Impairment of financial assets subject to impairment assessment under HKFRS 9 (Continued)

(v) Measurement and recognition of ECL (Continued)

For a financial guarantee contract, the Group is required to make payments only in the event of a default by the debtor in accordance with the terms of the instrument that is guaranteed. Accordingly, the ECL is the present value of the expected payments to reimburse the holder for a credit loss that it incurs less any amounts that the Group expects to receive from the holder, the debtor or any other party.

For ECL on financial guarantee contracts for which the effective interest rate cannot be determined, the Group will apply a discount rate that reflects the current market assessment of the time value of money and the risks that are specific to the cash flows but only if, and to the extent that, the risks are taken into account by adjusting the discount rate instead of adjusting the cash shortfalls being discounted.

Lifetime ECL for certain trade receivables is considered on a collective basis taking into consideration past due information and relevant credit information such as forward looking macroeconomic information.

For collective assessment, the Group takes into consideration the following characteristics when formulating the grouping:

- Past-due status;
- Nature, size and industry of debtors; and
- External credit ratings where available.

The grouping is regularly reviewed by management to ensure the constituents of each group continue to share similar credit risk characteristics.

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit impaired, in which case interest income is calculated based on amortised cost of the financial asset.

Except for receivables that are measured at FVTOCI and financial guarantee contracts, the Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade receivables, other receivables, loan receivables, amounts due from related parties and amount due from an associate where the corresponding adjustment is recognised through a loss allowance account. For receivables that are measured at FVTOCI, the loss allowance is recognised in OCI and accumulated in the other FVTOCI reserve without reducing the carrying amount of these receivables. Such amount represents the changes in the other FVTOCI reserve in relation to accumulated loss allowance.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

**Financial instruments (Continued)**

**Financial assets (Continued)**

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

On derecognition of receivables that are measured at FVTOCI, the cumulative gain or loss previously accumulated in the other FVTOCI reserve is reclassified to profit or loss

On derecognition of an investment in equity instrument which the Group has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investment revaluation reserve is not reclassified to profit or loss, but is transferred to accumulated profits.

Financial liabilities and equity

*Classification as debt or equity*

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

*Equity instrument*

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issued costs.

*Financial liabilities at amortised cost*

Financial liabilities at amortised cost, including bills, trade and other payables, amounts due to related parties and borrowings are subsequently measured at amortised cost, using the effective interest method.

# 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 3.2 Significant accounting policies (Continued)

### Financial instruments (Continued)

Financial liabilities and equity (Continued)

*Financial guarantee contracts*

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument. Financial guarantee contract liabilities are measured initially at their fair values. It is subsequently measured at the higher of:

- the amount of the loss allowance determined in accordance with HKFRS 9; and
- the amount initially recognised less, where appropriate, cumulative amortisation recognised over the guarantee period.

*Derecognition of financial liabilities*

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

*Changes in the basis for determining the contractual cash flows as a result of interest rate benchmark reform*

For changes in the basis for determining the contractual cash flows of a financial asset or financial liability to which the amortised cost measurement applies as a result of interest rate benchmark reform, the Group applies the practical expedient to account for these changes by updating the effective interest rate, such change in effective interest rate normally has no significant effect on the carrying amount of the relevant financial asset or financial liability.

A change in the basis for determining the contractual cash flows is required by interest rate benchmark reform if and only if, both these conditions are met:

- the change is necessary as a direct consequence of interest rate benchmark reform; and
- the new basis for determining the contractual cash flows is economically equivalent to the previous basis (i.e. the basis immediately preceding the change).

Derivative financial instruments

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss.

Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of HKFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured in its entirety as either amortised cost or fair value as appropriate.

Offsetting a financial asset and a financial liability

A financial asset and a financial liability are offset and the net amount presented in the consolidated statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the recognised amounts; and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

# 4. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in note 3, the directors of the Company are required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

## Critical judgement in applying accounting policies

The following is the critical judgement, apart from those involving estimations (see below), that the directors of the Company have made in the process of applying the Group's accounting policies and that has the most significant effect on the amounts recognised in the consolidated financial statements.

### Principal versus agent consideration (principal)

The Group engages in trading of materials. The Group concluded that the Group acts as the principal for such transactions as it controls the specified good before it is transferred to the customer after taking into consideration indicators such as the Group is primarily responsible for fulfilling the promise to provide the goods and the Group is exposed to inventory risk. When the Group satisfies the performance obligation, the Group recognises trading revenue in the gross amount of consideration to which the Group expects to be entitled as specified in the contracts.

During the year ended 31 December 2022, the Group recognised revenue relating to trading amounted to RMB32,627,597,000 (2021: RMB47,695,341,000).

## Key sources of estimation uncertainty

The following are 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.

### Deferred tax asset

As at 31 December 2022, deferred tax assets of RMB790,922,000 (2021: RMB688,263,000) in relation to unused tax losses, accrued warranty, deferred government grants and other temporary differences have been recognised in the consolidated statement of financial position. No deferred tax asset has been recognised on the tax losses of RMB252,972,000 (2021: RMB136,968,000) and deductible temporary differences of RMB227,965,000 (2021: RMB61,254,000) due to the unpredictability of future profit streams. The realisability of the deferred tax asset mainly depends on whether sufficient future profits or taxable temporary differences will be available in the future, which is a key source of estimation uncertainty. In cases where the actual future taxable profits generated are less or more than expected, or change in facts and circumstances which result in revision of future taxable profits estimation, a material reversal or further recognition of deferred tax assets may arise, which would be recognised in profit or loss for the period in which such a reversal or further recognition takes place. Further details of deferred taxation are disclosed in note 20.

# 4. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

### Key sources of estimation uncertainty (Continued)

#### Provision of ECL for trade receivables

Trade receivables with significant balances and credit-impaired are assessed for ECL individually. In addition, the Group uses practical expedient in estimating ECL on trade receivables which are not assessed individually using a provision matrix. The provision rates are based on internal credit ratings as groupings of various debtors that have similar loss patterns taking into consideration the Group's historical default rates and 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.

The provision of ECL is sensitive to changes in estimates. The information about the ECL assessment and the Group's trade receivables are disclosed in note 42 and note 23, respectively.

# 5. REVENUE

### (i) Disaggregation of revenue from contracts with customers

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| **Types of goods or service** | | |
| Manufacturing business | | |
| Lead-acid battery products | **35,747,300** | 31,820,839 |
| Renewable resources products | **3,813,709** | 2,678,280 |
| Lithium-ion battery products | **1,602,312** | 987,231 |
| Others (note) | **807,723** | 2,434,226 |
| Trading | **32,627,597** | 47,695,341 |
| | **74,598,641** | 85,615,917 |
| **Geographical markets** | | |
| Mainland China | **74,234,912** | 85,343,929 |
| Others | **363,729** | 271,988 |
| | **74,598,641** | 85,615,917 |
| **Timing of revenue recognition** | | |
| A point in time | **74,115,516** | 83,960,020 |
| Over time | **483,125** | 1,655,897 |
| | **74,598,641** | 85,615,917 |

Note: It includes provision of freight transportation service and sales of other products.

## 5. REVENUE (Continued)

### (ii) Performance obligations for contracts with customers

#### Sales of goods (revenue recognised at a point in time)

The Group sells lead-acid battery products, renewable resources products, lithium-ion battery products and other products to customers. Revenue is recognised when control of the goods has transferred, being when the goods have been shipped to the customer's specific location (delivery). Transportation and handling activities that occur before customers obtain control are considered as fulfilment activities. Following the delivery, the customer 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. The normal credit term is 45 to 90 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.

#### Trading (revenue recognised at a point in time)

The Group recognises revenue from trading of materials when the control of materials has transferred, being when customers collect the materials or obtain the control of the materials at the warehouse. Following the transfer, 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.

#### Freight transportation service (revenue recognised over time)

The performance obligation is satisfied over time as services are rendered and payment is generally due upon delivery of the shipments and issuance of the invoice to the customers.

### (iii) Transaction price allocated to the remaining performance obligation for contracts with customers

The transaction price allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) in relation to sales of properties as at 31 December 2022 and the expected timing of recognising revenue are as follows:

| | **Sales of properties**<br>RMB'000 |
|---|---|
| Within one year | 163,597 |
| More than one year but not more than two years | 123,274 |
| | 286,871 |

As at 31 December 2022 and 2021, all other sales contracts with customers are for periods of one year or less. As permitted under HKFRS 15, the transaction price allocated to these unsatisfied contracts is not disclosed.

# 6. 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 resources allocation and performance assessment. For the manufacturing operation, there was 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 manufacturing operation on a consolidated basis. Therefore, the operation of the Group constitutes two single operating and reportable segments, (1) manufacturing business and (2) trading.

The CODM makes decisions according to operating result of each segment. No analysis of segment assets and segment liabilities is presented as the CODM does not regularly review such information for the purposes 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, share of results of associates, corporate administrative expenses and finance costs. Inter-segment sales are charged at cost plus profit approach.

| | **Year ended 31 December** | |
|---|---|---|
| | **2022**<br>**RMB'000** | 2021<br>RMB'000 |
| **Segment revenue** | | |
| Manufacturing business | | |
| – external sales | **41,971,044** | 37,920,576 |
| Trading | | |
| – external sales | **32,627,597** | 47,695,341 |
| – inter-segment sales | **411,618** | 425,539 |
| Segment revenue | **75,010,259** | 86,041,456 |
| Eliminations | **(411,618)** | (425,539) |
| Group revenue | **74,598,641** | 85,615,917 |
| **Segment results** | | |
| Manufacturing business | **2,188,543** | 1,546,894 |
| Trading | **(42,535)** | 15,241 |
| | **2,146,008** | 1,562,135 |
| **Unallocated** | | |
| Other gains and losses | **(57,443)** | 1,669 |
| Share of results of associates | **(905)** | (2,735) |
| Corporate administrative expenses | **(7,962)** | (9,110) |
| Finance costs | **(20)** | (747) |
| Profit for the year | **2,079,678** | 1,551,212 |

# 6. SEGMENT INFORMATION (Continued)

## Other segment information

| **For the year ended 31 December 2022** | **Manufacturing business RMB'000** | **Trading RMB'000** | **Unallocated RMB'000** | **Total RMB'000** |
|---|---|---|---|---|
| Depreciation of property, plant and equipment | **726,513** | **330** | **–** | **726,843** |
| Amortisation of right-of-use assets | **42,314** | **–** | **–** | **42,314** |
| Impairment losses on trade receivables recognised in profit or loss | **108,704** | **7,726** | **–** | **116,430** |
| Loss on disposal/written off of property, plant and equipment | **66,464** | **–** | **–** | **66,464** |
| Interest income | **295,426** | **23,062** | **(3,554)** | **314,934** |
| Income tax expense | **652,978** | **6,185** | **–** | **659,163** |
| Write-down of inventories | **96,392** | **–** | **–** | **96,392** |

| For the year ended 31 December 2021 | Manufacturing business RMB'000 | Trading RMB'000 | Unallocated RMB'000 | Total RMB'000 |
|---|---|---|---|---|
| Depreciation of property, plant and equipment | 570,701 | 1,921 | – | 572,622 |
| Amortisation of right-of-use assets | 29,954 | – | – | 29,954 |
| Impairment losses on trade receivables recognised in profit or loss | 68,429 | 26,906 | – | 95,335 |
| Loss on disposal/written off of property, plant and equipment | 45,985 | – | – | 45,985 |
| Interest income | 211,166 | 7,037 | 1 | 218,204 |
| Income tax expense | 270,299 | 15,431 | – | 285,730 |
| Write-down of inventories | 12,888 | – | – | 12,888 |

## Information about major customers

During the year ended 31 December 2022 and 2021, none of the Group's individual customer contributed more than 10% to the total revenue of the Group.

## 7. OTHER INCOME

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Government grants | | |
| – related to income (note i) | **664,097** | 623,829 |
| – related to assets (note ii) | **40,111** | 46,123 |
| Interest income from bank deposits and bank balances | **212,565** | 174,211 |
| Interest income from loan receivables | **102,369** | 43,993 |
| Income from sales of scrap materials | **77,568** | 195,270 |
| Dividend income | **9,692** | 10,881 |
| | **1,106,402** | 1,094,307 |

Notes:

i. The government grants related to income mainly represent unconditional government subsidies received from relevant government bodies 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.

ii. The government grants related to assets mainly represent government subsidies obtained in relation to the acquisition of land use right or property, plant and equipment of certain subsidiaries of the Group, which were included in the consolidated statement of financial position as deferred government grants and credited to profit or loss on a straight-line basis over the lease term of the land use right or the useful life of the equipment.

## 8. OTHER GAINS AND LOSSES

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Net gains (losses) on financial assets at FVTPL | | |
| – structured bank deposits | **67,382** | 73,274 |
| – investments in listed equity securities | **(15,438)** | (14,074) |
| – commodity derivative contracts | **36,572** | 21,352 |
| – foreign currency forward contracts | **22,492** | – |
| Loss on disposal/written off of property, plant and equipment | **(66,464)** | (45,985) |
| Net foreign exchange (losses) gain | **(133,629)** | 11,834 |
| Gain on disposal of subsidiaries (note 39) | **53,332** | – |
| Others | **(21,690)** | (44,732) |
| | **(57,443)** | 1,669 |

## 9. IMPAIRMENT LOSSES UNDER EXPECTED CREDIT LOSS MODEL, NET OF REVERSAL

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Impairment losses, net of reversal, recognised on | | |
| – Trade receivables | **116,430** | 95,335 |
| – Other receivables | **10,552** | 16,791 |
| – Loan receivables | **16,080** | 1,333 |
| | **143,062** | 113,459 |

Details of impairment assessment are set out in note 42.

## 10. FINANCE COSTS

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Interest on borrowings | **264,776** | 207,276 |
| Interest on factorised bills | **74,517** | 45,281 |
| Interest on lease liabilities | **1,445** | 1,332 |
| Others | **–** | 200 |
| | **340,738** | 254,089 |

## 11. INCOME TAX EXPENSE

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| People's Republic of China (the "**PRC**") Enterprise Income Tax ("**EIT**"): | | |
| – Current tax | **697,114** | 509,976 |
| Deferred tax (note 20): | | |
| – Current year | **(37,951)** | (224,246) |
| | **659,163** | 285,730 |

The Company was incorporated in the Cayman Islands and Tianneng International Investment Holdings Limited was incorporated in the British Virgin Islands (the "**BVI**") and as such are tax exempted as no business is carried out in the Cayman Islands and the BVI under the tax laws of the Cayman Islands and the BVI, respectively.

The subsidiaries of the Company operating in Hong Kong did not have tax assessable profit during both years.

Under the Law of the PRC on Enterprise Income Tax (the "**EIT Law**") and Implementation Regulation of the EIT Law, the tax rate of the PRC subsidiaries is 25% for both years. In accordance with the "Notice of the State Tax Bureau of the Ministry of Finance Regarding Certain Preferential Treatment Policies on Enterprise Income Tax", New and High Technical Enterprise is subject to income tax at a preferential tax rate of 15%. Certain subsidiaries of the Company were qualified as New and High Technical Enterprises in accordance with the applicable EIT Law and are subject to income tax at a preferential tax rate of 15% for a period of three years starting from 2020 to 2022 according to the EIT Law.

## 11. INCOME TAX EXPENSE (Continued)

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

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Profit before tax | **2,738,841** | 1,836,942 |
| Tax at the applicable income tax rate of 25% (2021: 25%) | **684,710** | 459,236 |
| Tax effect of expenses not deductible for tax purposes | **8,981** | 3,167 |
| Tax effect of tax losses not recognised | **29,001** | 11,788 |
| Utilisation of tax losses previously not recognised | **–** | (39,317) |
| Tax effect of deductible temporary differences not recognized | **41,678** | – |
| Income tax at concessionary rates | **20,089** | (9,316) |
| Tax effect of additional deduction related to research and development costs and certain staff costs | **(171,925)** | (148,565) |
| Withholding tax on undistributed profits of PRC subsidiaries | **46,629** | 8,737 |
| | **659,163** | 285,730 |

## 12. PROFIT FOR THE YEAR

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

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Directors' remuneration (note 13) | **4,307** | 4,528 |
| Other staff costs | **3,103,052** | 2,548,631 |
| Retirement benefits scheme contributions, excluding directors | **161,021** | 140,487 |
| Share-based payments | **7,644** | 13,316 |
| Total staff costs | **3,276,024** | 2,706,962 |
| Depreciation of property, plant and equipment | **726,843** | 572,622 |
| Amortisation of right-of-use assets | **42,314** | 29,954 |
| Auditor's remuneration | **2,030** | 1,920 |
| Cost of inventories sold | **67,160,592** | 80,379,431 |
| Write-down of inventories (included in cost of sales) | **96,392** | 12,888 |

## 13. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS

Directors' and chief executive's remuneration for the year, disclosed pursuant to the applicable Listing Rules and the Hong Kong Companies Ordinance, is as follows:

| **For the year ended 31 December 2022** | **Fees RMB'000** | **Salaries and other benefits RMB'000** | **Contributions to retirement benefit schemes RMB'000** | **Total RMB'000** |
|---|---|---|---|---|
| **Executive directors (i)** | | | | |
| Zhang Tianren (ii) | **–** | **1,512** | **59** | **1,571** |
| Zhang Aogen | **–** | **652** | **–** | **652** |
| Zhang Kaihong | **–** | **761** | **–** | **761** |
| Shi Borong | **–** | **–** | **–** | **–** |
| Zhou Jianzhong | **–** | **703** | **20** | **723** |
| **Independent non-executive directors** | | | | |
| Huang Dongliang | **200** | **–** | **–** | **200** |
| Zhang Yong | **200** | **–** | **–** | **200** |
| Xia Yongyao (iv) | **50** | **–** | **–** | **50** |
| Xiao Gang (v) | **150** | **–** | **–** | **150** |
| **Total** | **600** | **3,628** | **79** | **4,307** |

| 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 directors (i)** | | | | |
| Zhang Tianren (ii) | – | 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 directors** | | | | |
| Huang Dongliang | 200 | – | – | 200 |
| Wu Feng (iii) | 100 | – | – | 100 |
| Zhang Yong | 200 | – | – | 200 |
| Xia Yongyao (iv) | 100 | – | – | 100 |
| **Total** | 600 | 3,869 | 59 | 4,528 |

Notes:

i. The executive directors' emoluments shown above were for their services in connection with the management of the affairs of the Company and the Group. The independent non-executive directors' emoluments shown above were for their services as directors of the Company.

ii. Dr. 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.

iii. Mr. Wu Feng has resigned as an independent non-executive director of the Company with effect from 30 June 2021.

iv. Mr. Xia Yongyao has been appointed as an independent non-executive director of the Company with effect from 30 June 2021 and resigned as an independent non-executive director of the Company with effect from 15 March 2022.

v. Mr. Xiao Gang has been appointed as an independent non-executive director of the Company with effect from 15 March 2022.

## 13. DIRECTORS' AND CHIEF EXECUTIVE'S EMOLUMENTS (Continued)

For the years ended 31 December 2022 and 2021, no director of the Company was included in the five highest paid individuals, details of whose emoluments are set out above. The emoluments of the five highest paid individuals during the year are as follows:

| | Year ended 31 December | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Basic salaries and allowances | **14,057** | 10,200 |
| Retirement benefits scheme contributions | **123** | 45 |
| | **14,180** | 10,245 |

The emoluments of the five highest paid individuals who are not members of the key management and the directors of the Company, are within the following bands:

| | Number of employees | |
|---|---|---|
| | **2022** | 2021 |
| Hong Kong dollar ("**HK$**") 1,500,001 to HK$2,000,000 | **–** | 1 |
| HK$2,000,001 to HK$2,500,000 | **1** | 2 |
| HK$2,500,001 to HK$3,000,000 | **2** | 1 |
| HK$3,000,001 to HK$3,500,000 | **1** | 1 |
| HK$3,500,001 to HK$4,000,000 | **–** | – |
| 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.

No share option was granted during the years ended 31 December 2022 and 2021.

## 14. DIVIDENDS

| | Year ended 31 December | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Dividends declared during the year:<br>2022: 2021 final dividend of HK40.00 cents (equivalent to RMB34.15 cents) per ordinary share (2021: 2020 final dividend of HK40.00 cents (equivalent to RMB33.67 cents)) | **384,594** | 374,810 |

Subsequent to the end of the reporting period, a final dividend of HK40.00 cents (equivalent to RMB34.84 cents) (2021: HK40.00 cents (equivalent to RMB34.15 cents)) in respect of the year ended 31 December 2022 per ordinary share has been proposed by the directors and is subject to approval by the shareholders in the forthcoming annual general meeting.

## 15. EARNINGS PER SHARE

The calculation of the basic and diluted earnings per share attributable to owners of the Company is based on the following data:

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| **Earnings:** | | |
| Earnings for the purposes of calculating basic and diluted earnings per share – attributable to the owners of the Company | **1,796,385** | 1,299,952 |

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| **Number of shares:** | | |
| Weighted average number of ordinary shares for the purpose of calculating basic earnings per share | **1,126,124,500** | 1,126,124,500 |
| Effect of dilutive potential ordinary shares – share options | **21,269,586** | 27,132,350 |
| Weighted average number of ordinary shares for the purpose of calculating diluted earnings per share | **1,147,394,086** | 1,153,256,850 |

## 16. 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 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 |
| Transfers | 348,190 | 252,834 | 534 | 4,829 | (606,387) | – |
| Disposals/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 |
| Additions | 248,433 | 979,607 | 20,320 | 34,344 | 1,601,729 | 2,884,433 |
| Transfers | 381,532 | 252,814 | – | 19,726 | (654,072) | – |
| Transfer from properties under development for sale | – | – | – | – | 72,667 | 72,667 |
| Transfer to right-of-use assets | – | – | – | – | (63,672) | (63,672) |
| Disposals/write-off | (13,968) | (225,059) | (6,941) | (7,882) | – | (253,850) |
| Disposals of subsidiaries | (51,110) | (50,318) | (683) | (1,421) | (5,087) | (108,619) |
| At 31 December 2022 | 4,165,643 | 5,588,225 | 122,941 | 354,112 | 1,962,692 | 12,193,613 |
| **DEPRECIATION AND IMPAIRMENT** | | | | | | |
| At 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 |
| Disposals/write-off | (338) | (87,771) | (7,341) | (2,633) | – | (98,083) |
| At 31 December 2021 | 1,056,632 | 1,822,777 | 63,591 | 215,166 | – | 3,158,166 |
| Provided for the year | 190,773 | 487,196 | 19,404 | 29,470 | – | 726,843 |
| Disposals/write-off | (3,581) | (131,998) | (4,267) | (3,762) | – | (143,608) |
| Disposals of subsidiaries | (6,832) | (26,724) | (232) | (582) | – | (34,370) |
| At 31 December 2022 | 1,236,992 | 2,151,251 | 78,496 | 240,292 | – | 3,707,031 |
| **CARRYING VALUES** | | | | | | |
| At 31 December 2022 | 2,928,651 | 3,436,974 | 44,445 | 113,820 | 1,962,692 | 8,486,582 |
| At 31 December 2021 | 2,544,124 | 2,808,404 | 46,654 | 94,179 | 1,011,127 | 6,504,488 |

The above items of property, plant and equipment, except for construction in progress, after taking into account the residual values, are depreciated on a straight-line basis at the following useful life:

| | |
|---|---|
| Buildings | 20 years |
| Plant and machinery | 10 years |
| Motor vehicles | 5 years |
| Furniture, fixtures and equipment | 5-10 years |

As at 31 December 2022, included in buildings held for own use are buildings with aggregate carrying amount of approximately RMB239,831,000 (2021: RMB262,980,000) whose property certificates are in the process of obtaining.

The directors of the Company considered no impairment loss on property, plant and equipment for both years ended 31 December 2022 and 2021.

# 17. RIGHT-OF-USE ASSETS

| | Leasehold lands RMB'000 | Leased properties RMB'000 | Total RMB'000 |
|---|---|---|---|
| **As at 31 December 2022** | | | |
| Carrying amounts | 1,219,342 | 29,921 | 1,249,263 |
| **As at 31 December 2021** | | | |
| Carrying amounts | 1,077,504 | 21,679 | 1,099,183 |
| **For the year ended 31 December 2022** | | | |
| Depreciation charge | 27,260 | 15,054 | 42,314 |
| **For the year ended 31 December 2021** | | | |
| Depreciation charge | 19,711 | 10,243 | 29,954 |

| | Year ended 31 December | |
|---|---|---|
| | **2022 RMB'000** | 2021 RMB'000 |
| Expense relating to short-term leases | **9,275** | 4,113 |
| Total cash outflow for leases | **137,720** | 343,225 |
| Additions to right-of-use assets | **129,681** | 335,181 |

The Group leases various (i) properties lease agreements are typically made for fixed periods of 2 to 5 years and; (ii) leasehold lands lease agreements are typically made for fixed periods of 50 or 70 years. Lease terms are negotiated on an individual basis and contain different terms and conditions. In determining the lease term and assessing the length of the non-cancellable period, the Group applies the definition of a contract and determines the period for which the contract is enforceable.

As at 31 December 2022 and 2021, the Group has obtained the land use right certificates for all leasehold lands.

## Restrictions or covenants on leases

In addition, lease liabilities of RMB25,045,000 are recognised with related right-of-use assets of RMB29,921,000 as at 31 December 2022 (2021: lease liabilities of RMB22,364,000 and related right-of-use assets of RMB21,679,000). The lease agreements do not impose any covenants other than the security interests in the leased assets that are held by the lessor. Leased assets may not be used as security for borrowing purposes.

## 18. INTERESTS IN ASSOCIATES

| | As at 31 December | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Cost of investment in associates | **232,427** | 39,880 |
| Share of post-acquisition losses and other comprehensive expenses | **(4,200)** | (3,765) |
| | **228,227** | 36,115 |

Details of each of the Group's associates at the end of the reporting period are as follows:

| Name of entities | Country of incorporation/ registration | Principal place of business | Proportion of ownership interest held by the Group | | Proportion of voting rights held by the Group | | Principal activities |
|---|---|---|---|---|---|---|---|
| | | | **31/12/ 2022** | 31/12/ 2021 | **31/12/ 2022** | 31/12/ 2021 | |
| 浙江谷尚智能科技有限公司 Zhejiang Gushang Intelligent Technology Co., Ltd. ("**Zhejiang Gushang**") | PRC | PRC | **20%** | 20% | **20%** | 20% | Research and development of industrial robots |
| 航天國華生態環境(浙江)有限公司 Aerospace Guohua Ecological Environment (Zhejiang) Co., Ltd. (previously named as 浙江天能資源再生有限公司 Zhejiang Tianneng Resources Recycling Co. Ltd.) ("**Aerospace Guohua**") (note) | PRC | PRC | **20%** | Note | **20%** | Note | Manufacture and sale of recyclable materials |
| 連雲港市雲海電源有限公司 Lianyungang Yunhai Power Supply Co., Ltd. | PRC | PRC | **23%** | 23% | **23%** | 23% | Manufacture and sale of lead-acid battery products |
| 浙江長興綠色電池科技有限公司 Zhejiang Changxing Green Battery Technology Co., Ltd. | PRC | PRC | **20%** | – | **20%** | – | Research and development of new energy technology |
| 上海扳手互聯信息技術有限公司 Shanghai Banshouhulian Information Technology Co., Ltd. | PRC | PRC | **–** | 20% | **–** | 20% | Recycling and reuse of second-hand vehicles |
| 長興通能商業管理有限公司 Changxing Tongneng Business Management Co., Ltd. | PRC | PRC | **34%** | 34% | 34% | 34% | Property management and sale of automobile |

Note: As at 31 December 2021, Aerospace Guohua was a wholly owned subsidiary of the Group. In December 2022, the Group disposed 80% equity interests in Aerospace Guohua to an independent third party. Upon the disposal, the Group lost control and exercised significant influence over Aerospace Guohua which became an associate of the Group. Details of the disposal are set out in note 39.

As at 31 December 2022, none of the Group's associates is individually material.

## 19. EQUITY INSTRUMENTS AT FVTOCI

| | As at 31 December | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Listed equity securities (i) | **204,683** | 200,937 |
| Unlisted equity securities (ii) | **119,400** | 66,552 |
| | **324,083** | 267,489 |

Notes:

(i) The above listed equity investments represent ordinary shares of entities listed in Hong Kong or Shanghai.

(ii) The above unlisted equity investments represent the Group's equity interest in a private entity established in the PRC.

The above investments are not held for trading and are held for long-term strategic purposes. The directors of the Company have elected to designate these investments in equity instruments as 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.

## 20. DEFERRED TAXATION

The following are the major deferred tax liabilities and assets recognised and movements thereon during the current and prior years:

| | Asset-related government grants RMB'000 | Withholding tax on undistributed profits RMB'000 | Fair values adjustment on property, plant and equipment and right-of-use assets from acquisition of subsidiaries RMB'000 | Interest capitalisation RMB'000 | Provision for inventories, loan receivables, trade and other receivables RMB'000 | Fair value change of debt instruments at FVTOCI RMB'000 | Accrued warranty RMB'000 | Accrued expenses RMB'000 | Fair value change of equity instruments at FVTOCI RMB'000 | Tax losses RMB'000 | Others RMB'000 | Total RMB'000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| At 1 January 2021 | 86,484 | (37,910) | (12,883) | (10,715) | 62,765 | 4,047 | 135,234 | 46,937 | – | 121,666 | 138 | 395,763 |
| Credit (charge) to profit or loss | 2,042 | (8,737) | – | 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 | – | 308,668 | 1,204 | 627,856 |
| Credit (charge) to profit or loss | 19,526 | (46,629) | 369 | 884 | 6,782 | – | (9,138) | 21,421 | – | 66,243 | (21,507) | 37,951 |
| Charge to other comprehensive income | – | – | – | – | – | (1,894) | – | – | (10,452) | – | – | (12,346) |
| Reversal on payment of withholding tax on distribution of earnings from PRC subsidiaries | – | 43,037 | – | – | – | – | – | – | – | – | – | 43,037 |
| At 31 December 2022 | 108,052 | (40,239) | (12,514) | (8,733) | 62,799 | – | 145,152 | 97,825 | (10,452) | 374,911 | (20,303) | 696,498 |

## 20. DEFERRED TAXATION (Continued)

For the purpose of presentation in the consolidated statement of financial position, certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances for financial reporting purposes:

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Deferred tax assets | **790,922** | 688,263 |
| Deferred tax liabilities | **(94,424)** | (60,407) |
| | **696,498** | 627,856 |

As at the end of the reporting period, the Group has unused tax losses of approximately RMB252,972,000 (At 31 December 2021: RMB136,968,000) 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 2027 (at 31 December 2021: 2026).

At the end of the reporting period, the Group has deductible temporary differences of RMB227,965,000 (2021: RMB61,254,000). No deferred tax asset has been recognised in relation to such deductible temporary difference as it is not probable that taxable profit will be available against which the deductible temporary differences can be utilised.

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 the PRC subsidiaries as above, no deferred taxation has been provided for the remaining accumulated profits of approximately RMB9,707 million (at 31 December 2021: RMB8,079 million), which was derived from the PRC subsidiaries since 1 January 2008 as the Group 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.

## 21. INVENTORIES

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Raw materials | **1,971,421** | 1,505,284 |
| Work in progress | **3,514,665** | 2,316,783 |
| Finished goods | **1,354,424** | 662,557 |
| | **6,840,510** | 4,484,624 |

## 22. PROPERTIES UNDER DEVELOPMENT FOR SALE

As at 31 December 2022 and 2021, the Group's properties under development for sale are situated in the PRC. All of the properties under development for sales are stated at the lower of cost and net realisable value. At the end of reporting period, no properties under development for sale were pledged as security.

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Carrying amount of leasehold lands | **590,445** | 644,533 |

The carrying amount of leasehold lands is measured at cost less any impairment losses. The residual values are determined as the estimated disposal value of the leasehold land component. No depreciation charge is made on the leasehold lands taking into account the estimated residual values as at 31 December 2022 (2021: Nil).

## 23. BILLS, TRADE AND OTHER RECEIVABLES

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Bills receivables* | **2,206,207** | – |
| Trade receivables | **1,738,719** | 1,868,648 |
| Less: Allowance for credit losses | **(351,350)** | (253,511) |
| | **1,387,369** | 1,615,137 |
| Other receivables | **178,702** | 143,674 |
| Less: Allowance for credit losses | **(45,961)** | (36,709) |
| | **132,741** | 106,965 |
| Prepayments for materials | **605,966** | 1,203,124 |
| PRC value added tax and EIT recoverable | **708,922** | 403,691 |
| | **5,041,205** | 3,328,917 |

* The balance represents bills receivables held by the Group which is measured at amortised cost since the bills are held within a business model whose objective is to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding. All bills received by the Group are with a maturity period of less than one year.

As at 1 January 2021, trade receivables from contracts with customers amounted to RMB917,248,000.

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

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| 0 to 45 days | **920,192** | 978,311 |
| 46 to 90 days | **359,021** | 349,392 |
| 91 to 180 days | **49,972** | 160,253 |
| 181 to 365 days | **23,895** | 86,048 |
| 1 year to 2 years | **11,876** | 24,986 |
| Over 2 years | **22,413** | 16,147 |
| | **1,387,369** | 1,615,137 |

Details of impairment assessment of trade and other receivables are set out in note 42.

## 24. LOAN RECEIVABLES

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Fixed-rate loan receivables | **1,263,939** | 488,882 |
| Analysed as | | |
| Current | **930,503** | 203,954 |
| Non-current | **333,436** | 284,928 |
| | **1,263,939** | 488,882 |

As at 31 December 2022 and 2021, none of the Group's loan receivables balance are past due. In the opinion of the directors of the Company, there was no significant increase in credit risk nor default.

Included in the carrying amount of loan receivables as at 31 December 2022 is accumulated impairment losses of RMB18,536,000 (2021: RMB2,456,000). Details of impairment assessment are set out in note 42.

As at 31 December 2022, all loans are either guaranteed and/or secured by collaterals.

The exposure of the Group's fixed-rate loan receivables to interest rate risks and their contractual maturity dates are as follows:

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Within one year | **930,503** | 203,954 |
| In more than one year but not more than two years | **267,744** | 173,665 |
| In more than two years but not more than five years | **65,692** | 111,263 |
| | **1,263,939** | 488,882 |

For the year ended 31 December 2022, the range of effective interest rates on the Group's loan receivables is 5.46% to 14.00% (2021: 5.46% to 14.00%).

## 25. DEBT INSTRUMENTS AT FVTOCI

As at 31 December 2022, the balance represents bills receivables held by the Group which is measured at FVTOCI since the bills are held within the business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets, and the contractual cash flows are solely payments of principal and interest on the principal amount outstanding.

The following is an aged analysis of debt instruments at FVTOCI at the end of the reporting period:

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| 0 to 180 days | **783,755** | 885,953 |
| 181 to 365 days | **14,250** | 101,102 |
| | **798,005** | 987,055 |

These bills receivables 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.

## 26. FINANCIAL ASSETS AT FVTPL

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Financial assets mandatorily measured at FVTPL: | | |
| Structured bank deposits | **270,041** | 1,521,000 |
| Equity securities listed in Mainland China | **43,877** | 39,610 |
| Equity securities listed in Hong Kong | **25,280** | 39,485 |
| Foreign currency forward contracts | **9,375** | – |
| Commodity derivative contracts | **1,866** | – |
| | **350,439** | 1,600,095 |

## 27. CASH AND CASH EQUIVALENTS/PLEDGED/RESTRICTED BANK DEPOSITS/TIME DEPOSITS

Cash and cash equivalents include demand deposits and short term deposits for the purpose of meeting the Group's short term cash commitments, which carry interest at market rates range from 0.01% to 0.35% (2021: 0.01% to 0.35%).

As at 31 December 2022, bank balances that are placed in restricted bank accounts in accordance with the applicable government regulations amounting to RMB127,769,000 (2021: nil), such balances can only be applied in the designated property development projects. The balances carry interest at an interest rate of 0.35% (2021: nil) per annum.

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 2022 carry interest rates ranging from 0.30% to 3.90% (2021: 0.30% to 3.90%) per annum. The pledged bank deposits will be released upon the settlement of relevant bank issued bills payables.

Time deposits at 31 December 2022 carry fixed interest rates ranging from 3.60% to 3.90% per annum and will be matured within one year.

Details of impairment assessment of bank balances, pledged/restricted bank deposits and time deposits are set out in note 42.

## 28. BILLS, TRADE AND OTHER PAYABLES

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Trade payables | **2,456,894** | 3,004,111 |
| Bills payables | **6,198,145** | 3,278,323 |
| Value added tax payables and other tax payables | **729,460** | 786,736 |
| Staff salaries and welfare payables | **657,223** | 427,426 |
| Payables for purchase of property, plant and equipment | **620,554** | 422,653 |
| Accrued charges | **474,586** | 393,797 |
| Deposits payables | **440,744** | 359,763 |
| Dividend payables | **110,498** | 7,916 |
| Other payables | **270,577** | 242,779 |
| | **11,958,681** | 8,923,504 |

The Group normally receives credit terms of 5 days to 90 days (2021: 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 dates:

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| 0 – 90 days | **2,181,136** | 2,879,511 |
| 91 – 180 days | **150,787** | 5,883 |
| 181 – 365 days | **61,633** | 61,971 |
| 1 – 2 years | **34,473** | 27,333 |
| Over 2 years | **28,865** | 29,413 |
| | **2,456,894** | 3,004,111 |

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

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| 0 – 180 days | **6,148,145** | 3,228,323 |
| 181 – 365 days | **50,000** | 50,000 |
| | **6,198,145** | 3,278,323 |

## 29. AMOUNTS DUE FROM (TO) RELATED PARTIES/AMOUNT DUE FROM AN ASSOCIATE

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

| | As at 31 December | |
|---|---|---|
| **Name of related parties** | **2022**<br>**RMB'000** | 2021<br>RMB'000 |
| 浙江暢通科技有限公司<br>Zhejiang Changtong Technology Company Limited<br>("**Changtong Technology**") (note i) | **269,070** | 236,469 |
| 濟源市萬洋冶煉(集團)有限公司<br>Jiyuan City Wangyang Smelting (Group) Co., Ltd.<br>("**Wanyang Group**") (note ii) | **42,874** | 3,008 |
| 浙江長興欣欣包裝有限公司<br>Zhejiang Changxing Xin Xin Packaging Co., Ltd<br>("**Xin Xin Packaging**") (note iii) | **4,169** | – |
| 長興遠鴻機械有限公司<br>Changxing Yuanhong Machinery Company Limited<br>("**Yuanhong Machinery**") (note iv) | **115** | 493 |
| | **316,228** | 239,970 |

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

| | As at 31 December | |
|---|---|---|
| **Name of related parties** | **2022**<br>**RMB'000** | 2021<br>RMB'000 |
| Changtong Technology | **1,475** | – |
| 浙江暢能商業管理有限公司<br>Zhejiang Changneng Business Management Co., Ltd.<br>("**Changneng Business Management**") (note v) | **3** | 3,479 |
| | **1,478** | 3,479 |

Notes:

i) Changtong Technology is beneficially owned by Ms. Zhang Mei'e, who is the sister of Dr. Zhang Tianren, the beneficial owner and the director of the Company, and her spouse, Mr. Ni Danqing.

ii) Wanyang Group is a party which holds 49% interest of Jiyuan Wanyang Green Energy Co., Ltd. (濟源市萬洋綠色能源有限公司), a 51% owned subsidiary of the Group.

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

iv) Yuanhong Machinery is beneficially owned by Mr. Zhang Kaihong's son. Mr. Zhang Kaihong is a director of the Company.

v) Changneng Business Management is controlled by Dr. Zhang Tianren.

The amounts due to/from related parties are trade in nature, unsecured and with ageing less than 180 days.

## 29. AMOUNTS DUE FROM (TO) RELATED PARTIES/AMOUNT DUE FROM AN ASSOCIATE (Continued)

Details of the amount due from an associate are as follows:

| Name of related party | As at 31 December 2022 RMB'000 | 2021 RMB'000 |
|---|---|---|
| Zhejiang Gushang | – | 70,000 |

The amount due from an associate as at 31 December 2021 was unsecured, interest-free and non-trade in nature and has been converted into equity investment during the current year.

## 30. BORROWINGS

| | As at 31 December 2022 | 2021 |
|---|---|---|
| Bank borrowings | **5,886,596** | 4,065,392 |
| Other borrowings* | **295,831** | 218,129 |
| | **6,182,427** | 4,283,521 |
| Secured | **1,339,101** | 179,675 |
| Unsecured | **4,843,326** | 4,103,846 |
| | **6,182,427** | 4,283,521 |

* As at 31 December 2022, other borrowings amounting to RMB100,000,000 (31 December 2021: RMB101,558,000) were from Changtong Technology, which are unsecured and carry interest at 6.00% per annum.

| | As at 31 December 2022 RMB'000 | 2021 RMB'000 |
|---|---|---|
| The carrying amounts of the above borrowings are repayable**: | | |
| Within one year | **4,558,209** | 2,874,839 |
| Within a period of more than one year but not exceeding two years | **1,298,088** | 428,980 |
| Within a period of more than two years but not more than five years | **264,300** | 964,009 |
| Over five years | **61,830** | 15,693 |
| | **6,182,427** | 4,283,521 |
| Less: Amounts due within one year shown under current liabilities | **(4,558,209)** | (2,874,839) |
| Amounts shown under non-current liabilities | **1,624,218** | 1,408,682 |

** The amounts due are based on scheduled repayment dates set out in the loan agreements.

## 30. BORROWINGS (Continued)

Details of assets pledged by the Group at the end of the reporting period are set out in note 44.

The exposure of the Group's borrowings are as follows:

| | As at 31 December | |
|---|---|---|
| | **2022 RMB'000** | 2021 RMB'000 |
| Fixed-rate borrowings | **295,831** | 218,129 |
| Variable-rate borrowings | **5,886,596** | 4,065,392 |
| | **6,182,427** | 4,283,521 |

The ranges of effective interest rates (which are also equal to contracted interest rates) on the Group's borrowings are as follows:

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| Fixed-rate borrowings | **5.00%-6.00%** | 5.00%-6.00% |
| Variable-rate borrowings | **1.30%-6.50%** | 1.09%-6.50% |

The Group's borrowings that are denominated in currencies other the functional currencies of the relevant group entities are set out below:

| | **United States dollars ("US$")** | HK$ |
|---|---|---|
| As at 31 December 2022 (RMB'000) | **940,221** | 428,784 |
| As at 31 December 2021 (RMB'000) | **959,109** | 383,346 |

## 31. LEASE LIABILITIES

| | As at 31 December | |
|---|---|---|
| | **2022 RMB'000** | 2021 RMB'000 |
| **Lease liabilities payable:** | | |
| Within one year | **11,608** | 8,727 |
| Within a period of more than one year but not more than two years | **8,824** | 8,642 |
| Within a period of more than two years but not more than five years | **4,613** | 2,767 |
| Within a period of more than five years | **–** | 2,228 |
| | **25,045** | 22,364 |
| Less: Amount due for settlement with 12 months shown under current liabilities | **(11,608)** | (8,727) |
| Amount due for settlement after 12 months shown under non-current liabilities | **13,437** | 13,637 |

The weighted average incremental borrowing rate applied to lease liabilities is 4.90% (2021: 4.90%).

## 32. PROVISION

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| At 1 January | **720,292** | 622,309 |
| Provision in the year | **729,053** | 763,745 |
| Utilisation of provision | **(751,917)** | (665,762) |
| At 31 December | **697,428** | 720,292 |

The Group provided a warranty on battery products. 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.

## 33. CONTRACT LIABILITIES

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Sales of goods | **2,045,044** | 2,129,216 |
| Sales of properties | **286,871** | – |
| | **2,331,915** | 2,129,216 |

As at 1 January 2021, contract liabilities amounted to RMB2,941,370,000.

The contract liabilities as at 1 January 2021 and 31 December 2021, amounting to RMB2,941,370,000 and RMB2,129,216,000 respectively, were recognised as revenue during the years ended 31 December 2021 and 2022.

The Group receives 30% to 100% of the contract value as deposits from property purchasers when they sign the sale and purchase agreements. Such advance payments result in contract liabilities being recognised throughout the property construction period for the amounts received.

## 34. DEFERRED GOVERNMENT GRANTS

| | Year ended 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| At 1 January | **633,727** | 548,532 |
| Additions | **270,442** | 131,318 |
| Released to other income (note 7) | **(40,111)** | (46,123) |
| At 31 December | **864,058** | 633,727 |

The Group received grants from the local government related to the acquisition of property, plant and equipment and land use right. The amounts are deferred and amortised over the useful lives of the relevant assets.

## 35. SHARE CAPITAL

| | Number of shares | Amount RMB'000 |
|---|---|---|
| Ordinary shares of the Company with nominal value of HK$0.10 each | | |
| **Authorised:** | | |
| At 1 January 2021, 31 December 2021 and 31 December 2022 | 2,000,000,000 | 212,780 |
| **Issued and fully paid:** | | |
| At 1 January 2021, 31 December 2021 and 31 December 2022 | 1,126,124,500 | 109,850 |

## 36. 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

During the year ended 31 December 2021, 天能電池集團股份有限公司 (Tianneng Battery Group Co., Ltd., "Tianneng Share") are listed on the Science and Technology Innovation Board of the Shanghai Stock Exchange with effect from 18 January 2021. The Group's interest in Tianneng Share was reduced from approximately 98.33% to approximately 86.53%. The reduction of the Group's equity interests from 98.33% to 86.53% is treated as a deemed disposal. The changes in the Group's equity interests in Tianneng Share do not result in the Group losing control over Tianneng Share and are accordingly accounted for as equity transactions. The surplus of RMB3,407,043,000, representing the difference between the consideration of RMB4,729,733,000 and the amount of non-controlling interests of RMB1,322,690,000, is credited to the capital reserve.

### 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.

## 37. SHARE-BASED PAYMENTS

### Share options scheme

The Company has a share options 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, option 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 | Upon the first anniversary of the date of grant |
| Additional 20% of the options | Upon the second anniversary of the date of grant |
| Additional 30% of the options | Upon the third anniversary of the date of grant |
| Additional 40% of the options | Upon the fourth anniversary of the date of grant |

The following tables disclosed movements of the Company's options under the 2007 Share Option Scheme during the years ended 31 December 2022 and 2021:

| Category | Grant date | Exercisable period | Exercise price | Outstanding at 01/01/2022 | Forfeited during the year | Outstanding at 31/12/2022 |
|---|---|---|---|---|---|---|
| Option C | 16.6.2014 | 16.6.2015-15.6.2024 | HK$2.90 | **34,794,000** | **(1,080,000)** | **33,714,000** |
| Exercisable at the end of the year | | | | | | **33,714,000** |

| Category | Grant date | Exercisable period | Exercise price | Outstanding at 01/01/2021 | Forfeited during the year | Outstanding at 31/12/2021 |
|---|---|---|---|---|---|---|
| Option C | 16.6.2014 | 16.6.2015-15.6.2024 | HK$2.90 | 35,410,500 | (616,500) | 34,794,000 |
| Exercisable at the end of the year | | | | | | 34,794,000 |

No options were exercised during the years ended 31 December 2022 and 2021.

## 37. SHARE-BASED PAYMENTS (Continued)

### Share option scheme (Continued)

During the years ended 31 December 2022 and 2021, no expense were recognised in relation to share options granted by the Company under the Scheme.

### Share award scheme of a subsidiary of the Company

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

According to the Share Award Scheme, 41,200,000 shares of Tianneng Share 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 Employees and for the purpose of facilitating the purchasing, holding and selling of shares of Tianneng Share for the benefit of the Selected Employees. 13,959,000 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 Share in A-share market (the "**Qualified IPO**") which was completed in January 2021. 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 Employees.

If the Selected Employees resigned before the expiry of restriction of the awarded shares, 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.

The fair value of the restricted shares granted on 23 May 2019 amounted to approximately RMB71,367,000 which was determined by referenced to the recent transaction price of the shares of Tianneng Share. During the year ended 31 December 2022, an expense of approximately RMB7,644,000 (2021: RMB13,316,000) was recognised by the Group in relation to the restricted shares granted by Tianneng Share under the Share Award Scheme.

As at 31 December 2022, financial liabilities of approximately RMB110,864,000 (2021: RMB117,010,000) was recognised according to the repurchase consideration to be paid under Share Award Scheme if the granted shares become unvested.

## 38. RETIREMENT BENEFIT SCHEMES

The employees of the PRC subsidiaries are members of the state-management retirement benefits scheme operated by the PRC government. The Group is required to contribute 16% of payroll costs to the retirement benefits scheme to fund the benefits. The only obligation of the Group with respect to the retirement benefits scheme is to make the specified contribution under the scheme.

The Group also operates a Mandatory Provident Fund Scheme for all employees in Hong Kong. The assets of the scheme are held separately from those of the Group, in funds under the control of trustees. The Group contributes a certain percentage of the relevant payroll costs to the scheme, which contribution is matched by the employees. As at 31 December 2022 and 2021, the Group had no forfeited contributions available to reduce the contributions payable in future years.

The amounts of contributions made by the Group in respect of the retirement benefit schemes during both years are disclosed in notes 12 and 13.

## 39. DISPOSAL OF SUBSIDIARIES

During the current year, the Group disposed 80% and 70% equity interests in Aerospace Guohua and 浙江天能高分子材料科技有限公司 Zhejiang Tianneng Polymer Material Technology Co., Ltd. ("**Tianneng Polymer Material**") to independent third parties for cash consideration of RMB129,440,000 and RMB1,000,000, respectively. The net assets of Aerospace Guohua and Tianneng Polymer Material at the dates of disposal were as follows:

| | **Aerospace Guohua** RMB'000 | **Tianneng Polymer Material** RMB'000 | **Total** RMB'000 |
|---|---|---|---|
| **Consideration received:** | | | |
| Cash received | 63,560 | 1,000 | 64,560 |
| Deferred consideration (note) | 65,880 | – | 65,880 |
| | 129,440 | 1,000 | 130,440 |
| **Analysis of assets and liabilities over which control was lost:** | | | |
| Property, plant and equipment | 68,606 | 5,643 | 74,249 |
| Right-of-use assets | 55,047 | – | 55,047 |
| Goodwill | 22,806 | – | 22,806 |
| Inventories | 6,967 | – | 6,967 |
| Bills, trade and other receivables | 27,875 | 129 | 28,004 |
| Cash and cash equivalents | 429 | 109 | 538 |
| Trade and other payables | (38,543) | (5,206) | (43,749) |
| Borrowings | (15,900) | – | (15,900) |
| Contract liabilities | (658) | – | (658) |
| **Net assets disposed of** | 126,629 | 675 | 127,304 |
| **Gain on disposal of subsidiaries:** | | | |
| Consideration received and receivable | 129,440 | 1,000 | 130,440 |
| Net assets disposed of | (126,629) | (675) | (127,304) |
| Recognition of investment in an associate | 32,360 | – | 32,360 |
| Non-controlling interests | 17,634 | 202 | 17,836 |
| **Gain on disposal** | 52,805 | 527 | 53,332 |
| **Net cash inflow arising on disposal:** | | | |
| Cash consideration | 63,560 | 1,000 | 64,560 |
| Less: bank balances and cash disposed of | (429) | (109) | (538) |
| | 63,131 | 891 | 64,022 |

Note: The deferred consideration will be settled in cash by the purchaser on or before 31 December 2023.

## 40. CAPITAL COMMITMENTS

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

| | As at 31 December | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Capital expenditure in respect of acquisition of property, plant and equipment contracted for but not provided in the consolidated financial statements | **2,933,564** | 2,043,330 |
| Commitment to contribute funds to an associate | **–** | 128,000 |
| | **2,933,564** | 2,171,330 |

## 41. 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 and lease liabilities as disclosed in notes 30 and 31 respectively, net of cash and cash equivalents 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.

# 42. FINANCIAL INSTRUMENTS

## a. Categories of financial instruments

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| **Financial assets** | | |
| Financial assets at FVTPL | | |
| Mandatorily measured at FVTPL | | |
| – Structured bank deposits | **270,041** | 1,521,000 |
| – Held-for-trading investments | | |
| – Equity securities listed in Mainland China | **43,877** | 39,610 |
| – Equity securities listed in Hong Kong | **25,280** | 39,485 |
| – Derivative financial instruments | **11,241** | – |
| Equity instruments at FVTOCI | **324,083** | 267,489 |
| Debt instruments at FVTOCI | **798,005** | 987,055 |
| Amortised cost | **17,918,137** | 13,930,050 |
| **Financial liabilities** | | |
| Derivative financial instruments | **–** | 263 |
| Amortised cost | **16,596,067** | 13,446,995 |

## b. Financial risk management objectives and policies

The Group's major financial instruments include equity instruments at FVTOCI, loan receivables, long-term receivables, bills, trade and other receivables, amounts due from related parties, amount due from an associate, debt instruments at FVTOCI, financial assets at FVTPL, pledged/restricted bank deposits, time deposits, cash and cash equivalents, bills, trade and other payables, amounts due to related parties, borrowings and derivative financial instruments. Details of these financial instruments are disclosed in the respective notes. The risks associated with these financial instruments include market risk (currency risk, interest rate risk and other price risk), credit risk, liquidity risk and risks arising from the interest rate benchmark reform. The policies to mitigate these risks are set out below. The management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Market risk

Currency risk

The Group collects most of its revenue in RMB and most of the expenditures as well as capital expenditures are also denominated in RMB, which is the functional currency of the relevant subsidiaries. The Group's exposure to foreign currency risk is arising mainly from certain bank balances, certain financial assets at FVTPL, certain equity instrument at FVTOCI and certain bank borrowings which are denominated in foreign currencies. Except for the above items denominated in foreign currencies, the group entities did not have any other monetary assets or liabilities denominated in foreign currencies as at the end of the reporting period.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the end of reporting date are as follows:

| | Assets | | Liabilities | |
|---|---|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 | **2022** **RMB'000** | 2021 RMB'000 |
| US$ | **129,534** | 95,805 | **940,221** | 959,109 |
| HK$ | **179,689** | 57,024 | **539,282** | 387,560 |

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 rate.

*Sensitivity analysis*

The Group is mainly exposed to the currency risk on US$ and HK$ against RMB.

The following table details the Group's sensitivity to a 5% (2021: 5%) increase and decrease in RMB against the relevant foreign currencies. 5% (2021: 5%) is the sensitivity rate used when reporting foreign currency risk internally to the key management personnel and represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting date for a 5% (2021: 5%) change in foreign currency rates. The analysis illustrates the impact for a 5% (2021: 5%) strengthening of RMB against the relevant currency. For a 5% (2021: 5%) weakening of RMB against the relevant currency, there would be an equal and opposite impact on the profit and other comprehensive income.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Market risk (Continued)

Currency risk (Continued)

*Sensitivity analysis (Continued)*

| | US$ impact (i) | | HK$ impact (ii) | |
|---|---|---|---|---|
| | **2022 RMB'000** | 2021 RMB'000 | **2022 RMB'000** | 2021 RMB'000 |
| Increase (decrease) in post-tax profit for the year as a result of a 5% strengthening of RMB against the foreign currency | **41,467** | 43,165 | **18,181** | 16,854 |

(i) This is mainly attributable to the exposure outstanding on US$ denominated bank balances and bank borrowings of the Group at the end of the reporting period.

(ii) This is mainly attributable to the exposure to outstanding HK$ denominated bank balances, financial assets at FVTPL and bank borrowings of the Group at the end of the reporting period.

| | HK$ impact | |
|---|---|---|
| | **2022 RMB'000** | 2021 RMB'000 |
| Decrease in investment revaluation reserve for the year as a result of a 5% strengthening of RMB against the foreign currency | **8,457** | 10,047 |

This is mainly attributable to the exposure to outstanding HK$ denominated equity instrument at FVTOCI of the Group at the end of the reporting period.

Interest rate risk

The Group is exposed to fair value interest rate risk in relation to loan receivables (see note 24 for details), pledged/restricted bank deposits and time deposits (see note 27 for details), fixed-rate borrowings (see note 30 for details) and lease liabilities (see note 31 for details). The Group is also exposed to cash flow interest rate risk in relation to variable-rate bank balances (see note 27 for details) and variable-rate borrowings (see note 30 for details). The directors of the Company monitor interest rate exposures and will consider hedging significant interest rate risk should the need arise.

*Sensitivity analysis*

The sensitivity analyses below have been determined based on the exposure to interest rates at the end of the reporting period. The analysis is prepared assuming the financial instruments outstanding at the end of the reporting period were outstanding for the whole year. A 50 basis point (2021: 50 basis points) increase or decrease in variable-rate bank borrowings are used represents management's assessment of the reasonably possible change in interest rates. Bank balances are excluded from sensitivity analysis as the management considers that the exposure of cash flow interest rate risk arising from variable-rate bank balances is insignificant.

If the interest rate on variable-rate borrowings had been 50 basis points higher/lower and all other variables were held constant, the Group's post-tax profit for the year ended 31 December 2022 would decrease/increase by RMB27,598,000 (2021: decrease/increase by RMB22,023,000).

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Market risk (Continued)

Other price risk

The Group is exposed to equity price risk through its investments in listed equity securities measured at FVTPL and FVTOCI. For quoted equity securities measured at FVTPL, the management manages this exposure by maintaining a portfolio of investments with different risks. In addition, the Group also invested in certain unquoted and quoted equity securities for investees operating in battery industry sector for long term strategic purposes which had been designed as FVTOCI. The management closely monitors such exposure and will consider hedging the risk exposure should the need arise.

*Sensitivity analysis*

The sensitivity analyses have been determined based on the exposure to equity price risk at the reporting date. Sensitivity analyses for unquoted equity securities with fair value measurement categorised within Level 3 were disclosed in note 42c.

If the prices of the respective equity instruments had been 10% (2021: 10%) higher/lower, the post-tax profit for the year ended 31 December 2022 would increase/decrease by RMB5,819,000 (2021: increase/decrease by RMB5,933,000) as a result of the changes in fair value of investments at FVTPL and the other comprehensive income would increase/decrease by RMB30,084,000 (2021: increase/decrease by RMB20,094,000) as a result of the changes in fair value of investments at FVTOCI.

### Credit risk and impairment assessment

Credit risk refers to the risk that the Group's counterparties default on their contractual obligations resulting in financial losses to the Group. 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, except that the credit risks associated with loan receivables is mitigated because they are secured over equipment or trade receivables.

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 on trade balances based on provision matrix. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced.

Bills receivables/debt instruments at FVTOCI

Bills receivables and debt instruments at FVTOCI were all bank-issued notes. Since the issuers were 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.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Credit risk and impairment assessment (Continued)

Loan receivables

The management estimates the estimated loss rates of loan receivables based on historical credit loss experience of the debtors as well as the fair value of the collateral pledged by the debtors to the loan receivables. Based on assessment by the management, the loss given default is low in view of the estimated realised amount of ultimate disposal of the collaterals.

Pledged bank deposits/restricted bank deposits/bank balances/time deposits

There is concentration of credit risk on pledged/restricted bank deposits, bank balances and time deposits for the Group as at 31 December 2022. The credit risk on liquid funds is limited because the majority of counterparties are banks with high credit-ratings assigned by international credit-rating agencies and state-owned banks with good reputation.

Financial guarantee contracts

For financial guarantee contracts, the aggregate amount of outstanding financial guarantees issued to banks in respect of mortgage loans granted to its customers that the Group could be required to pay amounted to RMB199,207,000 as at 31 December 2022 (2021: nil). The fair value of these financial guarantee, as at dates of initial recognition, were considered insignificant. At the end of the reporting period, the management has performed impairment assessment, and concluded that there has been no significant increase in credit risk since initial recognition of the financial guarantee contracts. Accordingly, the loss allowance for financial guarantee contracts issued by the Group is measured at an amount equal to 12m ECL. No loss allowance was recognised in the profit or loss.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Credit risk and impairment assessment (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 past-due amounts or the counterparty is a new customer as a large producer with good reputation and good 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 |

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Credit risk and impairment assessment (Continued)

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

| | Notes | 12-month or lifetime ECL | Gross carrying amount | |
|---|---|---|---|---|
| | | | **31/12/2022 RMB'000** | 31/12/2021 RMB'000 |
| **Debt instruments at FVTOCI** | | | | |
| Bills receivables | 25 | Lifetime ECL (not credit-impaired) | **798,005** | 987,055 |
| **Financial assets at amortised cost** | | | | |
| Loan receivables | 24 | 12-month ECL | **1,282,475** | 491,338 |
| Long-term receivables | | 12-month ECL | **–** | 5,136 |
| Amounts due from related parties/an associate | 29 | | | |
| – trade nature | | Lifetime ECL (not credit-impaired) | **1,478** | 3,479 |
| – non-trade nature | | 12-month ECL | **–** | 70,000 |
| Bank balances and time deposits | 27 | 12-month ECL | **7,995,808** | 8,697,364 |
| Pledged/restricted bank deposits | 27 | 12-month ECL | **4,930,595** | 2,943,087 |
| Bills receivables | 23 | Lifetime ECL (not credit-impaired) | **2,206,207** | – |
| Trade receivables | 23 | Lifetime ECL (provision matrix) | **1,412,536** | 1,704,083 |
| | | Credit-impaired | **326,183** | 164,565 |
| Other receivables | 23 | 12-month ECL | **132,959** | 106,231 |
| | | Credit-impaired | **45,743** | 37,443 |

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Credit risk and impairment assessment (Continued)

The following table provides information about the exposure to credit risk for trade receivables which are assessed on a collective basis within lifetime ECL (not credit-impaired). Debtors with significant outstanding balances or credit-impaired with gross carrying amount of RMB326,183,000 as at 31 December 2022 (2021: RMB164,565,000) were assessed individually.

| Internal credit rating | Average loss rate | Gross carrying amount RMB'000 | Impairment loss allowance RMB'000 |
|---|---|---|---|
| **As at 31 December 2022** | | | |
| Grade A | **0.5%** | **579,873** | **2,907** |
| Grade B | **5.0%** | **790,665** | **39,533** |
| Grade C | **20.0%** | **41,998** | **8,400** |
| | | **1,412,536** | **50,840** |
| **As at 31 December 2021** | | | |
| Grade A | 0.5% | 381,473 | 1,907 |
| Grade B | 5.0% | 1,151,323 | 57,566 |
| Grade C | 20.0% | 171,287 | 34,257 |
| | | 1,704,083 | 93,730 |

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.

## 42. FINANCIAL INSTRUMENTS (Continued)

### b. Financial risk management objectives and policies (Continued)

#### Credit risk and impairment assessment (Continued)

As at 31 December 2022, the Group provided RMB50,840,000 (2021: RMB93,730,000) impairment allowance for trade receivables based on collective assessment. Impairment allowance of RMB300,510,000 (2021: RMB159,781,000) were made on debtors with credit-impaired debtors.

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 2021** | 51,200 | 176,172 | 227,372 |
| – Impairment losses, net of reversal | 42,530 | 52,805 | 95,335 |
| – Write-offs | – | (69,196) | (69,196) |
| **As at 31 December 2021** | 93,730 | 159,781 | 253,511 |
| – Impairment losses, net of reversal | **(17,595)** | **134,025** | **116,430** |
| – Transfer to credit-impaired | **(25,295)** | **25,295** | **–** |
| – Write-offs | **–** | **(18,591)** | **(18,591)** |
| **As at 31 December 2022** | **50,840** | **300,510** | **351,350** |

The Group writes off a trade receivable when there is information indicating that debtors is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtors has been placed under liquidation or has entered into bankruptcy proceedings.

#### 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 Group's remaining contractual maturity for its financial liabilities and derivative instruments. 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 maturity dates for other non-derivative financial liabilities are based on the agreed repayment dates.

The table includes both interest and principal cash flows.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Liquidity risk (Continued)

| | Weighted average interest rate % | On demand or less than 1 year RMB'000 | 1 to 2 years RMB'000 | 2 to 5 years RMB'000 | over 5 years RMB'000 | Total undiscounted balances RMB'000 | Carrying amounts RMB'000 |
|---|---|---|---|---|---|---|---|
| At 31 December 2022 | | | | | | | |
| **Non-derivative financial liabilities** | | | | | | | |
| Bills, trade and other payables | – | **10,097,412** | **–** | **–** | **–** | **10,097,412** | **10,097,412** |
| Amounts due to related parties | – | **316,228** | **–** | **–** | **–** | **316,228** | **316,228** |
| Borrowings | 3.49 | **4,654,299** | **1,325,520** | **293,081** | **62,239** | **6,335,139** | **6,182,427** |
| Lease liabilities | 4.90 | **12,063** | **9,442** | **5,380** | **–** | **26,885** | **25,045** |
| | | **15,080,020** | **1,334,962** | **298,461** | **62,239** | **16,775,664** | **16,621,112** |
| At 31 December 2021 | | | | | | | |
| **Non-derivative financial liabilities** | | | | | | | |
| Bills, trade and other payables | – | 8,923,504 | – | – | – | 8,923,504 | 8,923,504 |
| Amounts due to related parties | – | 239,970 | – | – | – | 239,970 | 239,970 |
| Borrowings | 4.13 | 2,941,571 | 447,850 | 972,953 | 19,293 | 4,381,667 | 4,283,521 |
| Lease liabilities | 4.90 | 9,182 | 9,510 | 3,850 | 2,394 | 24,936 | 22,364 |
| | | 12,114,227 | 457,360 | 976,803 | 21,687 | 13,570,077 | 13,469,359 |
| **Derivative – net settlement** | | | | | | | |
| Commodity derivative contracts | – | 263 | – | – | – | 263 | 263 |

### Interest rate benchmark reform

One of the Group's London Interbank Offered Rate ("**LIBOR**") bank loans will be subject to the interest rate benchmark reform. The Group is closely monitoring the market and managing the transition to new benchmark interest rates, including announcements made by the relevant IBOR regulators.

LIBOR

As at 31 December 2022, all LIBOR settings have been either ceased to be provided by any administrator or no longer be representative.

# 42. FINANCIAL INSTRUMENTS (Continued)

## b. Financial risk management objectives and policies (Continued)

### Interest rate benchmark reform (Continued)

The following table shows the total amounts of outstanding contracts and the progress in completing the transition to alternative benchmark rates. The amounts of financial liabilities are shown at their carrying amounts.

| Financial instruments prior to transition | Maturing in | Carrying amounts RMB'000 | Hedge accounting | Transition progress for financial instruments |
|---|---|---|---|---|
| As at 31 December 2022 | | | | |
| **Non-derivative financial liabilities** | | | | |
| Bank borrowings linked to 3-month US$ LIBOR | 2024 | 940,221 | N/A | Expected to transition latest by H1 2023. |
| As at 31 December 2021 | | | | |
| **Non-derivative financial liabilities** | | | | |
| Bank borrowings linked to 3-month US$ LIBOR | 2024 | 959,109 | N/A | Expected to transition latest by H1 2023. |

Subsequent to the end of the reporting period, the Group has reached a consensus with banks to replace LIBOR by Secured Overnight Financing Rate after the cessation of LIBOR interest rate on 30 June 2023 in accordance with the terms of the loan agreement. The amendment of the relevant loan agreement is in progress and is expected to be completed before 30 June 2023.

## c. Fair value

### (i) Fair value of the Group's financial assets that are measured at fair value on a recurring basis

Some of the Group's financial assets are measured at fair value at the end of each reporting period. The following table gives information about how the fair values of these financial assets are determined (in particular, the valuation technique(s) and inputs used).

# 42. FINANCIAL INSTRUMENTS (Continued)

## c. Fair value (Continued)

### (i) Fair value of the Group's financial assets that are measured at fair value on a recurring basis (Continued)

| Financial assets | Fair value as at 31/12/2022 RMB'000 | Fair value as at 31/12/2021 RMB'000 | Fair value hierarchy | Valuation technique and key input | Significant unobservable input | Relationship of unobservable inputs to fair value |
|---|---|---|---|---|---|---|
| Listed equity securities classified as financial assets at FVTPL | Listed equity securities in Mainland China: RMB43,877<br>Listed equity securities in Hong Kong: RMB25,280 | Listed equity securities in Mainland China: RMB39,610<br>Listed equity securities in Hong Kong: RMB39,485 | Level 1 | Quoted transaction prices in active markets. | N/A | N/A |
| Listed equity instruments at FVTOCI | Listed equity securities in Hong Kong: RMB169,143<br>Listed equity securities in Mainland China: RMB35,540 | Listed equity securities in Hong Kong: RMB200,937 | Level 1 | Quoted transaction prices in active markets. | N/A | N/A |
| Foreign currency forward contracts | Assets: RMB9,375 | N/A | Level 2 | Discounted cash flow. Future cash flows are estimated based on forward exchange rates (from observable forward exchange rates at the end of the reporting period) and contracted forward rates, discounted at a rate that reflects the credit risk of various counterparties. | N/A | N/A |
| Commodity derivative contracts | Assets: RMB1,866 | Labilities: RMB263 | Level 2 | The fair value of the commodity derivative contracts is estimated by reference to the quoted prices of similar standardised commodity derivative contracts at the end of the reporting period. | N/A | N/A |
| Debt instruments at FVTOCI | RMB798,005 | RMB987,055 | Level 2 | Discounted cash flow is estimated based on discount rate observed in the available market. | N/A | N/A |
| Structured bank deposits at FVTPL | RMB270,041 | RMB1,521,000 | Level 3 | Discounted cash flow is estimated based on expected return. | Expected return | An increase in the expected return would result in a decrease in the fair value measurement of the structured bank deposits, and vice versa. |
| Unlisted equity instruments at FVTOCI | RMB119,400 | RMB66,552 | Level 3 | Backsolve from recent transaction price. | Recent transaction price | The higher the recent transaction price, the higher the fair value |

## 42. FINANCIAL INSTRUMENTS (Continued)

### c. Fair value (Continued)

#### (ii) Reconciliation of Level 3 fair value measurements of financial assets

| | **Structured bank deposits at FVTPL** RMB'000 | **Unlisted equity instruments at FVTOCI** RMB'000 |
|---|---|---|
| At 1 January 2021 | 483,100 | 21,552 |
| Total gains | 73,274 | – |
| – in profit or loss | 73,274 | – |
| – in other comprehensive income | – | – |
| Purchases | 14,342,000 | 45,000 |
| Disposals/settlements | (13,377,374) | – |
| At 31 December 2021 | 1,521,000 | 66,552 |
| Total gains | 67,382 | 74,502 |
| – in profit or loss | 67,382 | – |
| – in other comprehensive income | – | 74,502 |
| Purchases | 8,892,026 | – |
| Transfers out of Level 3(note) | – | (21,212) |
| Disposals/settlements | (10,210,367) | (442) |
| At 31 December 2022 | 270,041 | 119,400 |

Note: The Group owns 0.14% equity interest in 翱捷科技(上海)有限公司 Aojie Technology (Shanghai) Company Limited ("**Aojie Technology**") that is classified as a financial asset at FVTOCI and is measured at fair value at each reporting date. The fair value of the investment as at 31 December 2022 amounts to RMB35,540,000 (31 December 2021: RMB21,212,000). The fair value of the investment as at 31 December 2021 was measured using a valuation technique with significant unobservable inputs and hence was classified as Level 3 of the fair value hierarchy. Aojie Technology has become a listed entity on Shanghai Stock Exchange since January 2022, with its shares traded in an active market. Therefore, the fair value of the investment as at 31 December 2022 was determined based on a quoted transaction price and was classified as Level 1 of the fair value hierarchy.

#### (iii) Fair value of financial assets and financial liabilities that are recorded at amortised cost

The management of the Group considers that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the consolidated financial statements approximate to their fair values at the end of each reporting period.

## 43. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flow were, or future cash flow will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

| | **Borrowings** RMB'000 | **Dividend payables** RMB'000 | **Lease liabilities** RMB'000 | **Total** RMB'000 |
|---|---|---|---|---|
| At 1 January 2021 | 1,638,040 | 7,916 | 24,963 | 1,670,919 |
| Financing cash flows | 2,645,422 | (374,810) | (11,843) | 2,258,769 |
| Non-cash changes | | | | |
| – New leases entered | – | – | 7,912 | 7,912 |
| – Dividends declared | – | 374,810 | – | 374,810 |
| – Interest expenses | 2,772 | – | 1,332 | 4,104 |
| – Exchange adjustments | (2,713) | – | – | (2,713) |
| At 31 December 2021 and 1 January 2022 | 4,283,521 | 7,916 | 22,364 | 4,313,801 |
| Financing cash flows | **1,795,707** | **(282,012)** | **(22,060)** | **1,491,635** |
| Non-cash changes | | | | |
| – New leases entered | **–** | **–** | **23,296** | **23,296** |
| – Dividends declared | **–** | **384,594** | **–** | **384,594** |
| – Disposal of a subsidiary | **(15,900)** | **–** | **–** | **(15,900)** |
| – Interest expenses | **–** | **–** | **1,445** | **1,445** |
| – Exchange adjustments | **119,099** | **–** | **–** | **119,099** |
| At 31 December 2022 | **6,182,427** | **110,498** | **25,045** | **6,317,970** |

## 44. 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.

| | **As at 31 December** | |
|---|---|---|
| | **2022** **RMB'000** | 2021 RMB'000 |
| Pledged/restricted bank deposits | **4,930,595** | 2,943,087 |
| Structured bank deposits | **30,000** | 392,682 |
| Property, plant and equipment | **427,737** | 429,023 |
| Debt instruments at FVTOCI | **654,612** | 450,913 |
| Right-of-use assets | **220,182** | 99,749 |
| Bills receivables | **1,588,327** | – |
| | **7,851,453** | 4,315,454 |

# 45. RELATED PARTY TRANSACTIONS

## (a) Related party transactions

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

| | | Year ended 31 December | |
|---|---|---|---|
| | | **2022** | 2021 |
| | | **RMB'000** | RMB'000 |
| Changtong Technology | Purchase of materials | **574,942** | 515,827 |
| Changtong Technology | Sales of materials | **2,307** | 476 |
| Yuanhong Machinery | Purchase of materials | **2,120** | 3,360 |
| Changxing Jin Ling Hotel (note i) | Hotel expenses | **77** | 1,140 |
| Changneng Business Management | Property management fees | **7,313** | 7,647 |
| Changneng Business Management | Rental income | **75** | – |
| Xin Xin Packaging | Purchase of consumables | **7,023** | 2,583 |
| Wanyang Group | Purchase of materials | **937,769** | 1,041,520 |
| Wanyang Group | Sales of materials | **87,575** | 219,153 |

Note:

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

**(b)** Details of the remuneration of directors and other members of key management during the year are set out in note 13.

**(c)** Details of the balances with related parties are set out in note 29.

## 46. PARTICULARS OF PRINCIPAL SUBSIDIARIES OF THE COMPANY

Details of the principal subsidiaries directly and indirectly held by the Company at the end of the reporting period are set out below:

| Name of subsidiaries | 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 |
|---|---|---|---|---|---|
| | | | **31/12/2022** | 31/12/2021 | |
| 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 Share | PRC – Limited liability company 13 March 2003 | Registered capital – RMB972,100,000 | **86%** | 86% | Investment holding, research and development, manufactureand sales of lead-acid batteries and battery related accessories |
| 天能帥福得能源股份有限公司 Tianneng Saft Energy Co., Ltd. | PRC – Limited liability company 1 July 2004 | Registered capital – RMB692,777,778 | **60%** | 60% | Manufacture and sales of lithium-ion batteries |
| 天能電池(蕪湖)有限公司 Tianneng Battery (Wuhu) Co., Ltd. | 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 Energy Co., Ltd. | PRC – Limited liability company 2 July 2009 | Registered capital – RMB400,000,000 | **100%** | 100% | Manufacture and sales of lead-acid batteries |

## 46. 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 31/12/2022 | 31/12/2021 | Principal activities |
|---|---|---|---|---|---|
| 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 – RMB700,000,000 | **100%** | 100% | Manufacture and sales of recycled materials |
| 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 Group (Anhui) Co., Ltd. | PRC – Limited liability company 4 November 2010 | Registered capital – RMB300,000,000 | **100%** | 100% | Manufacture and sales of lead-acid batteries |
| 濟源市萬洋綠色能源有限公司 Jiyuan Wanyang Green Energy Co., Ltd. | 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 Power Supply Co., Ltd. | 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 – RMB43,600,000 | **60%** | 60% | Manufacture and sales of lead-acid batteries |
| 天能集團貴州能源科技有限公司 Tianneng Group Guizhou Energy Technology Co., Ltd. | PRC – Limited liability company 12 July 2012 | Registered capital – RMB200,000,000 | **100%** | 100% | Manufacture and sales of lead-acid batteries |
| 安徽轟達電源有限公司 Anhui Hongda Power Supply Co., Ltd. | PRC – Limited liability company 26 March 2010 | Registered capital – RMB50,000,000 | **100%** | 100% | Manufacture and sale of electrode plates |

## 46. 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 |
|---|---|---|---|---|---|
| | | | **31/12/2022** | 31/12/2021 | |
| 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 – RMB300,000,000 | **51%** | 51% | Manufacture and sale of recycled materials |
| 天能金玥(上海)新能源材料有限公司 Tianneng Jinyue (Shanghai) New Energy Materials Co., Ltd. | PRC – Limited liability company 28 November 2016 | Registered capital – RMB100,000,000 | **100%** | 100% | Trading of materials |
| 浙江天暢供應鏈管理有限公司 Zhejiang Tianchang Supply Chain Management Co., Ltd. | PRC – Limited liability company 26 April 2018 | Registered capital – RMB30,000,000 | **90%** | 90% | Provision of transportation service to group companies |
| 浙江天贏供應鏈管理有限公司 Zhejiang Tianying Supply Chain Management Co., Ltd. | PRC – Limited liability company 5 February 2020 | Registered capital – RMB30,000,000 | **100%** | 100% | Trading of materials |
| 天能金玥(天津)有限公司 Tianneng Jinyue (Tianjin) Co., Ltd. | PRC – Limited liability company 9 May 2020 | Registered capital – RMB20,000,000 | **100%** | 100% | Trading of materials |
| 天能物產(海南)有限公司 Tianneng Products (Hainan) Co. Ltd. | PRC – Limited liability company 22 June 2021 | Registered capital – RMB10,000,000 | **100%** | 100% | Trading of materials |

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.

# 47. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

| | As at 31 December | |
|---|---|---|
| | **2022** | 2021 |
| | **RMB'000** | RMB'000 |
| Non-current assets | | |
| Equipment | **23** | 23 |
| Investments in and amounts due from subsidiaries | **1,160,898** | 1,038,091 |
| | **1,160,921** | 1,038,114 |
| Current assets | | |
| Other receivables | **228** | 129 |
| Cash and cash equivalents | **139,801** | 8,378 |
| | **140,029** | 8,507 |
| Current liabilities | | |
| Other payables | **110,979** | 11,539 |
| Amounts due to subsidiaries | **136,390** | 134,051 |
| | **247,369** | 145,590 |
| Net current liabilities | **(107,340)** | (137,083) |
| Net assets | **1,053,581** | 901,031 |
| Capital and reserves | | |
| Share capital | **109,850** | 109,850 |
| Reserves | **943,731** | 791,181 |
| Total equity | **1,053,581** | 901,031 |

## Movement in the Company's reserves

| | **Share premium** RMB'000 | **Share options reserve** RMB'000 | **Accumulated (losses) profit** RMB'000 | **Total** RMB'000 |
|---|---|---|---|---|
| At 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 |
| Profit for the year | – | – | 537,144 | 537,144 |
| Forfeiture of share options | – | (1,112) | 1,112 | – |
| Dividend recognised as distribution | – | – | (384,594) | (384,594) |
| At 31 December 2022 | 778,567 | 34,243 | 130,921 | 943,731 |