



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

INTERIM REPORT



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## 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. XIA Yongyao  
(resigned with effect from 15 March 2022)  
Mr. ZHANG Yong  
Mr. XIAO Gang (appointed with effect  
from 15 March 2022)

### AUDIT COMMITTEE MEMBERS

Mr. HUANG Dongliang (*Chairman*)  
Mr. XIA Yongyao  
(resigned with effect from 15 March 2022)  
Mr. ZHANG Yong  
Mr. XIAO Gang (appointed with effect  
from 15 March 2022)

### REMUNERATION COMMITTEE MEMBERS

Mr. XIA Yongyao (*Chairman*)  
(resigned with effect from 15 March 2022)  
Mr. XIAO Gang (*Chairman*) (appointed  
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 with effect from 15 March 2022)  
Mr. XIAO Gang (appointed with effect  
from 15 March 2022)

### COMPANY SECRETARY

Ms. HUI Wai Man Shirley

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Stock Code: 00819

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## COMPANY'S WEBSITE

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## PRINCIPAL SHARE REGISTRAR

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KY1-1111, Cayman Islands

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17/F, Far East Finance Centre  
16 Harcourt Road  
Hong Kong



# MANAGEMENT DISCUSSION AND ANALYSIS

## COMPANY PROFILE

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

In the first half of 2022, the global pandemic was in a state of flux. The Central Economic Work Conference stated that “economic development is facing pressure of decrease in demand, supply shock and weakening expectations”. Tianneng, through the implementation of the “Industry Technology Capital” development strategy with determination, quickly and scientifically adjusted the operation strategies of various business segments, stepping on an “upward trend” during the off-season of the industry.

Leveraging on the core competitiveness built with rich industry experience of more than 30 years, comprehensive product research and development, production and sales systems, as well as profound brand power, Tianneng was able to withstand the impact of the external environment in the first half of 2022. It will continue to consolidate its foundation for development. Tianneng was listed on a number of honours, among which it was ranked the 160th on Fortune China 500, the 208th on Top 500 National Science and Technology Innovation Enterprise, the 10th on Top 500 Zhejiang Business Enterprises in China, and the 46th on Top 100 Creative Enterprises in Zhejiang Province, demonstrating high quality development of Tianneng.



## I. PRINCIPAL BUSINESS AND PRODUCT APPLICATION DURING THE REPORTING PERIOD

The major products of the Group comprise of high-end eco-friendly batteries, new energy batteries and renewable new materials.

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

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, which are advantageous for its cost-effectiveness, safety and stability and recyclability. Lead-acid batteries can be mainly categorized as motive batteries, start-stop batteries, energy storage batteries and standby batteries by application fields.

#### *Lead-acid motive battery*

As the power source of vehicles, lead-acid motive batteries are mainly used in light electric vehicles, special electric vehicles and other vehicles.

Light electric vehicles include two-wheeled electric vehicles, three-wheeled electric vehicles, light motorcycles and scooters. As an important consumer product for Chinese people's daily travel, logistics and express delivery, the light electric vehicle market is huge with rigid demand. Owing to their safety, stability and cost-effectiveness, lead-acid batteries are widely used in the power system of light electric vehicles as the main battery.

Special electric vehicles include storage and freight equipment, forklifts, tractors, electric tour buses, underground mining locomotives and other equipment. Lead-acid batteries can be used as DC power sources to provide power systems. The Group's tubular batteries for electric forklifts are used in electric forklifts, electric stackers, electric lift trucks and other freight equipment. Equipped with complete models, PzB and PzS series, the needs of different equipment can be met. Lead-acid batteries for electric tour buses are a DC power supply for golf carts, electric sightseeing vehicles, electric tour buses, electric police cars, electric recreational vehicles, etc. They can also be used as a DC power supply in other aspects.



## MANAGEMENT DISCUSSION AND ANALYSIS

### ***Start-stop battery***

Start-stop batteries are designed for instant starting, ignition, and lighting power needs of vehicles, ships, diesel locomotives, etc., which are applicable to starting fuel vehicles, heavy trucks, agricultural vehicles and engine sets under harsh environment; starting outdoor motive equipment such as motorcycles, all-terrain vehicles, and snowmobiles; starting and deep cycle charging and discharging of vessels; and diesel locomotives, electric locomotives, railway passenger carrier lighting, emergency power supply and auxiliary electrical equipment, etc.

Start-stop batteries are used in the vehicle start-stop system to save energy and reduce consumption. Tianneng's EFB start-stop battery products are suitable for applications under partial state of charging, supporting more frequent engine starts and prolonging idle time. AGM batteries are applied to vehicles equipped with start-stop system, which can save nearly 5% of fuels compared with traditional vehicles with internal combustion engines.

### ***Lead-carbon energy storage system and backup battery***

Energy storage batteries can provide effective power supply for global communications, data centres, emergency power supplies, railways, vessels, radio and television, UPS, digital and consumer products. Lead-carbon batteries are non-flammable with relatively low cost, being advantageous of high safety and high efficiency in the application of large-scale energy storage. Tianneng TNC lead-carbon energy storage products can be used in solar power generation equipment, wind power generation equipment and other power equipment.



## (2) **New energy battery**

New energy batteries mainly comprise lithium-ion batteries, and also include the production and R&D of next-generation battery products such as hydrogen fuel cells. The application fields of lithium-ion batteries are principally divided into motive field and non-motive field. The lithium-ion batteries for the motive category include light electric vehicles, electric passenger vehicles and electric commercial vehicles, while the lithium-ion batteries for the non-motive category include energy storage field and consumer electronic products.

### ***Lithium-ion motive battery***

The Group's lithium-ion motive batteries are mainly applied on electric bicycles, electric cars, electric passenger buses, micro electric vehicles, logistics vehicles, sanitation vehicles, special industrial vehicles, etc. The Company's products cover cylindrical batteries, pouch shell batteries, prismatic batteries and lithium-ion battery systems. Lithium-ion batteries, with a number of national patented technologies, are safe, environmentally friendly, lightweight, and long-life.

Among which, serving the world's top 50 construction machinery companies, the Group's industrial lithium-ion motive batteries can provide customised, safe, reliable and durable product solutions for forklifts, aerial work platforms, AGVs, etc. based on customer usage scenarios and actual needs, so as to facilitate the electrification process in the field of construction machinery.

The Group has also formed a rich product line comprising light motive lithium-ion batteries, high-charge-rate electric tool batteries, etc., which can be applied to electronic instruments and small household appliances, etc., to meet the needs of new markets and overseas markets.





## MANAGEMENT DISCUSSION AND ANALYSIS

### *Lithium-ion energy storage system and backup battery*

Lithium-ion energy storage products can provide effective power for a variety of application scenarios as same as the Group's lead-carbon energy batteries do. Lithium-ion energy storage has the advantages of high energy density, high conversion efficiency, and long cycle life, mainly used on the power generation, grid, and user perspectives.

### *Fuel cell battery*

As a power generation device that converts chemical energy into electrical energy through chemical reactions, fuel cell batteries can provide electricity without interruption until the fuel is exhausted. Compared with primary batteries and fossil fuel power generation, fuel cells are a green eco-friendly battery.

The Group can provide customised hydrogen fuel cell system solutions (including systems and stacks) according to specific application scenarios, which are suitable for various fields such as transportation, aerospace and energy storage, including drones, two-wheeled vehicles, standby powers, sightseeing vehicles, forklifts, mainstream large buses, heavy trucks, logistics vehicles and various energy storage stations. In addition, in the field of electrolysis of water for hydrogen production, the Group can also customise the supporting electrolysed water MEA, electrolysis stack, electrolyser and hydrogen generator.

### **(3) Renewable new materials**

In terms of the renewable new materials segment, the Company, based on the Extended Producer Responsibility Scheme (生產者責任延伸制度), has developed the recycling business of used lead-acid battery and lithium-ion battery apart from the main business, constructing a value chain of batteries. Meanwhile, the Company is also actively exploring other green recycling businesses including solid waste and hazardous waste disposal. It extended the upstream and downstream industrial chains and increased its influence in the subdivision fields.



## ***Lead-acid battery recycling business***

The Group's used lead-acid battery recycling business commenced in 2009. Used batteries include motive batteries, start-stop batteries, energy storage batteries and standby batteries. The metal recovery rate of used batteries can reach more than 99%. The plastic recovery rate is 99% and the recovery rate of residual acids is 100%. The products produced for recycling are mainly lead ingots, sulfuric acid, plastic shells, etc.

## ***Lithium-ion battery recycling business***

Used lithium-ion batteries are valuable "urban mines", while the green regeneration and material repair technology of retired power batteries is an important basis for ensuring the efficient recovery and recycling of used motive battery materials. Under the shortage of raw materials for lithium-ion batteries, the used lithium-ion battery recycling industry has received considerable attention. The Group commenced engaging in lithium-ion battery recycling business in 2018. Currently, lithium-ion motive batteries for new energy will also usher in the first wave of peak season for scraps. Lithium-ion battery recycling is mainly based on motive batteries, 3C consumer batteries, energy storage batteries, etc. The products produced are mainly cobalt sulfate, nickel sulfate, manganese sulfate, lithium carbonate, etc.

## **II. INDUSTRY DEVELOPMENT AND OPERATION**

During the reporting period, the Group's manufacturing business achieved revenue of approximately RMB17,410 million, representing an increase of 8.10% as compared to the same period of last year. Profit attributable to owners of the Company amounted to approximately RMB760 million, representing an increase of 14.96% as compared to the same period of last year.

The industries where each of the Group's manufacturing business operates and operating conditions are as follows:

# MANAGEMENT DISCUSSION AND ANALYSIS

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

During the reporting period, the operating income of high-end eco-friendly batteries amounted to approximately RMB14,213 million, representing an increase of 8.34% as compared with the same period of last year. As a principal business of the Group, the high-end eco-friendly battery business maintains the momentum of high-quality and sustainable development.

### *Lead-acid motive battery*

In recent years, the thriving new economy has driven the demand for two-wheeled and three-wheeled electric vehicles in the short-distance delivery and express delivery. Meanwhile, the COVID-19 pandemic has propelled the transformation to the commuting alone mode for end consumers. According to the White Paper for the Development of the Chinese Two-wheeled Electric Vehicles Industry (2022) 《中國電動二輪車行業發展白皮書(2022)》 published by EVTank, a research institute, China produced a total of 54.43 million two-wheeled electric vehicles in 2021, recording a year-on-year rise of approximately 12.6%. Given the aggregate ownership of approximately 350 million two-wheeled electric vehicles in 2022, approximately every four Chinese people own one two-wheeled electric vehicle. Based on the personal daily commute by consumers, lead-acid batteries need replacement every 0.5 to 3 years, generating an even greater market for replacement battery.

Following years of development and accumulation, the Company has built an integrated marketing and after-sales network of more than 3,000 distributors and more than 400,000 terminal stores covering 32 provinces, autonomous regions and municipalities. Meanwhile, the Tab Cloud (泰博雲), a digital tool to help its distributors identify the latest market supply and demand and grasp market incremental points in real time, which has sharpened their capabilities of business operation and refined operation. The Company's market share has increased year by year in the past three years that the market share of the lead-acid batteries for light electric vehicles currently exceeded 45%.



Tianneng endeavoured to explore products in respect of technology research and development. During the reporting period, Tianneng officially released the 3rd generation of “Long Mileage King” battery production and the 3rd generation of “Longevity King”. The 3.0 version of the “Two-King series” lead-acid batteries is equipped with the 2nd generation Power Durable core technology system with a new graphene technology process applied, which has made a leap forward in terms of motive, cycle life, continuation mileage, low temperature resistance and charging rate as compared with the 2nd generation batteries.

The Group also jointly released a super new product equipped with 3.0 batteries – the liquid-cooled ultra-endurance electric vehicle with Luyuan Electric Vehicle (綠源電動車). In order to meet the replacement needs of users of two-wheeled electric vehicles under the national Statement of “Safety Technical Specification for Electric Bicycle (GB17761-2018)” promulgated in 2019 (the New National Standard), Tianneng’s rechargeable batteries for Luyuan’s new electric bicycles were also released. The launch of a series of new products covers electric bicycles, electric mopeds, electric motorcycles and other models, providing users with a variety of product choices for travel.



## MANAGEMENT DISCUSSION AND ANALYSIS

In addition, the Group released an overrun graphene battery using Balance Tech (衡科技), high-energy graphene composite modified materials and the world's leading intelligent forging technology, aiming to solve the problems of non-durability and short life of batteries.

The number of three-wheeled electric vehicles in the market is increasing year by year, of which the market in townships and rural areas is growing rapidly. In order to facilitate the standardised and orderly development of the three-wheeled electric vehicle battery industry and fully meet the needs of three-wheeled vehicle users, Tianneng launched the "Tianju Battery (天聚電池)" brand which officially commenced its professional brand for three-wheeled vehicle battery during the reporting period when consolidating its leading position in the electric vehicle battery industry. Tianju Battery, equipped with a professional production line, is the first-ever deeply differentiated and exclusively customised product in the industry.

In order to increase more loads and durability of agricultural three-wheeled vehicles, Tianneng officially launched T3 graphene New Black Gold large batteries such as 6-EVF-62 in the press release for a high-capacity and large battery held in Jiashou City, Anhui Province, to redefine the standard of high-capacity and large batteries in the lead-acid battery industry with its excellent performance of "maximum loads doubling battery life". Such battery adopts a brand new intelligent manufacturing technology to improve overall battery performance.





In terms of special electric vehicle batteries, the Group's major customers include Hangcha Group, Anhui Heli, XCMG, Baoli Forklift, Zhejiang Dingli Machinery, Lonking, Zoomilion, etc. During the reporting period, Tianneng and Heli Group completed the strategic cooperation contract, pursuant to which both parties will carry out cooperation in various aspects.

The Beijing Winter Olympics was held on 4 February 2022. As one of the suppliers of shuttle buses equipped with Tianneng's new energy battery, Shandong Huarui Chida (山東華瑞馳達) assisted in providing shuttle and commuting services for athletes and staff of the Beijing Winter Olympics.

### **Start-stop battery**

Based on different sales objects, the market of start-stop batteries is divided into primary and secondary markets. Automobile start-stop batteries have an average operating life of three to five years, with approximately a fifth of operating vehicles in need of battery replacement each year. Research institutions predict that the market size of the domestic start-stop batteries industry in the PRC is expected to reach RMB33 billion in 2025.

The Group constantly optimises secondary channels and new retail channels. At the same time, the Group also made breakthroughs in the primary market. In the first half of 2022, the number of start-stop battery orders of the Group increased year-on-year. In the first tier OEM market, new customers such as XCMG (徐工) and Kama Automobile (山東凱馬) which have passed the system audits by vehicle enterprises including Dongfeng Sokon (東風小康) and BAIC Foton Motor (北汽福田), have engaged in the commercial vehicle sector.

In the first half of the year, Tianneng launched a variety of AGM start-stop batteries and low lead consumption EFB start-stop batteries. The product parameters all meet the requirements of industry standards. EFB products have further reduced lead consumption through technological innovation. Based on the results of experimental verification, the current product technology level has reached the forefront of the industry. As of 30 June 2022, the Group has applied a total of 18 patents related to start-stop system, of which 5 are invention patents, mainly involving processes such as grids and electrolytes.



## MANAGEMENT DISCUSSION AND ANALYSIS

### *Lead-carbon energy storage system and backup battery*

During the reporting period, the Group's energy storage recorded operating income of approximately RMB280 million, representing a year-on-year increase of approximately 32 times. Among which, lead-carbon energy storage recorded operating income of approximately RMB73.31 million, representing a year-on-year increase of 763%.

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 the medium and large electrochemical energy storage power stations shall not apply for NCM lithium-ion batteries and sodium-sulphur batteries. The release of these policies emphasized the safety of new energy storage. In the future, the batteries specialised for energy storage featured with "high safety, low cost and easy recycling" will be widely used.

Based on its characteristic of high security and cost-effectiveness, lead-carbon energy storage has a broad market for applications in data centres and large-scale electrochemical energy storage power stations.

Tianneng is the enterprise that can provide both lead-carbon and lithium energy storage solutions. During the reporting period, Tianneng's lead-carbon energy storage has expanded its markets in various fields. Currently, Tianneng's products and system solutions in the field of new energy storage have covered the power generation side, grid side and user side, which are widely used in photovoltaic power stations, wind farms, urban power stations, large data centres, 5G base stations, industrial parks, and ordinary residences and other scenarios. Tianneng has rich product and technology reserves for sub-fields such as base station energy storage, user energy storage, industrial and commercial energy storage as well as energy storage power stations.



## (2) New energy battery

During the reporting period, the Group's new energy battery business recorded an operating revenue of approximately RMB763 million, representing a year-on-year increase of 80.04%.

In terms of production capacity development, in March 2022, the Company invested in the construction of Annual Output of 10GWh Lithium-ion Battery Second Phase Project for the Base in South Taihu New District, Huzhou, Zhejiang Province, with a planned production capacity of approximately 7GWh. The first phase of 3GWh has entered the mass production stage, which has facilitated the Company's production capacity layout for lithium-ion iron phosphate (LFP) batteries. At the same month, Tianneng Battery Group Co., Ltd. ("**Tianneng Battery**") (Stock Code: 688819.SH), a subsidiary of the Company, announced that it plans to invest in the construction of Annual Output of 15GWh Energy Storage and Motive Lithium-ion Battery Project with contribution of approximately RMB5.17 billion in three phases. This project investment will accelerate the implementation of the Company's development strategic plan, seize the development opportunities of the energy storage industry, continue to optimise the Company's industrial structure, and further enhance the Company's market competitiveness.





## MANAGEMENT DISCUSSION AND ANALYSIS

### *Lithium-ion motive battery*

In the first half of 2022, the Group's lithium-ion motive batteries for light electric vehicles recorded operating income of approximately RMB410 million, representing a year-on-year increase of 17.77%.

The New National Standard has been gradually implemented, in particular several provinces and pilot cities have adhered to the New National Standard to regulate and rectify the light electric vehicle industry. The New National Standard clarifies parameters such as vehicle quality and maximum speed of electric bicycles, which is conducive to the development of leading enterprises in the industry. Lithium-ion batteries, featured with light weight, more charge cycles and short charging time, can meet the needs of urban mobility tools for commuting as well as the requirements of the New National Standard such as light quality, strong battery life and high output power. Therefore, the market share of lithium-ion batteries in the new car market for electric bicycles in line with the New National Standard has increased.

During the reporting period, Tianneng has made breakthroughs in the development of the mini passenger car and commercial vehicle markets. In April 2022, the pure electric passenger car of Jiangsu Huazi Vehicle Industry (江蘇華梓車業), equipped with Tianneng's LFP batteries, was listed in the Road Motor Vehicle Manufacturers and Products Announcement 《道路機動車輛生產企業及產品公告》 (Batch 355) by the Ministry of Industry and Information Technology of the People's Republic of China (MIIT). In June 2022, Tianneng appeared for the first time as a supporting supplier in the product catalogue of the Road Motor Vehicle Manufacturers and Products Announcement (Batch 357) issued by MIIT, equipped with two models of Farizon Auto (遠程汽車), Geely Commercial Vehicle's brand, and a model of its brand, Tang Jun Ouling Automobile (唐駿歐鈴汽車).



In today's rapid development of the warehousing and logistics industry, forklifts equipped with lithium-ion batteries have become an important element connecting warehousing and logistics as well as forklift performance. Tianneng continues to strengthen R&D and innovation in the field of industrial motive batteries, leading the high-voltage lithium-ion battery for forklifts into the high-power era. On the one hand, Tianneng's high-voltage lithium-ion battery for large capacity forklifts can effectively reduce the current of the forklifts, slow down the frequency of power fluctuation, reduce energy loss and generate electricity in an efficient way by saving more than 10% of the energy and improving the efficiency by more than 12%. On the other hand, it can provide stable voltage continuously without affecting the efficiency when discharging and prolong the service life of the battery cycle.

In addition, Tianneng's forklift lithium-ion battery for leasing was delivered offline in May this year, relying on its customised, high-performance products and industrial financial services to provide customers with battery leasing system solutions. As forklift lithium-ion battery for leasing adopts minimised size using LFP battery cells, the volumetric energy density of the battery pack is increased by approximately 30%. With a customised outer box, it is suitable for the majority of market models. Meanwhile, the battery is convenient for replacement and effectively reduce the purchase cost of the battery pack which is a cost-effective competitive advantage.

## MANAGEMENT DISCUSSION AND ANALYSIS

In the future, Tianneng will continue to rely on its strong scientific and technological innovation team and industrial strength to provide users with more efficient, safe and environmentally friendly products with an advanced intelligent manufacturing platform, and continue to promote the electrification process in the field of construction machinery.



### ***Lithium-ion energy storage system and backup battery***

During the reporting period, Tianneng's lithium-ion storage energy business achieved a breakthrough, recording operating income of approximately RMB206 million. Tianneng's lithium-ion battery energy storage products are mainly used for large power and grid side, outdoor energy storage, small households and other scenarios.



At present, the global energy transition is accelerating, while the integration of renewable energy sources such as wind power and photovoltaics as well as distributed power sources grid-connection continues to grow. Electrochemical energy storage is one of the important ways to store electricity. According to the data of the Gaogong Industry Institute (GGII), the global energy storage battery shipments reached 70GWh in 2021, representing a year-on-year increase of approximately 159.30%, of which China's energy storage battery shipments reached 48GWh, representing a year-on-year increase of approximately 196.30%. GGII predicts that by 2025, the global energy storage battery shipments will reach 460GWh, and it is optimistic about the future market.

In March 2022, the 14th Five-Year Plan for New Energy Storage Development Implementation Plan officially issued by the National Development and Reform Commission (NDRC) and the National Energy Administration (NEA) stated that the new energy storage will enter the stage of large-scale development from the initial stage of commercialisation equipped with the conditions for large-scale commercial application by 2025. In June of the same year, NDRC and NEA issued the Notice on Further Promoting the Participation of New Energy Storage in the Electricity Market and Dispatching Application (《關於進一步推動新型儲能參與電力市場和調度運用的通知》), clarifying that the new energy storage can participate in the electricity market as an independent energy storage with the deployment of its market mechanism, price mechanism and operation mechanism. By 2030, the new energy storage will be fully market-oriented.

Tianneng's lithium-ion battery is committed to continuously breaking through technical barriers, increasing R&D efforts in energy storage battery cycle life, energy storage cost and safety, and providing customers with products and systems that meet various energy storage applications.



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In terms of outdoor portable energy storage, a 65W car refrigerator is able to run for 8.5 hours and a conventional notebook computer is able to run for 13.5 hours, with Tianneng's 550W high-voltage lithium-ion battery product fully charged. On the premise of supplementing power with solar photovoltaic panels, an outdoor energy storage power supply can fully meet the daily electricity demand for outdoor leisure and mobile office. In the post-epidemic era, as outdoor sports and suburban leisure are popular and common around the world, outdoor energy storage power sources have replaced fuel generators as the mainstream solution for outdoor power consumption. In terms of global carbon neutrality, this emerging category has entered into the fast lane of development.

Tianneng has also continued to increase the power generation side energy storage business, by signing strategic cooperation agreements with Datang Shandong Power Generation Co., Ltd. and State Grid Zhejiang Electric Power Co., Ltd. Huzhou Power Supply Company, as well as further expanding its production capacity to support Tianneng's high quality development in the field of new energy storage.



In May 2022, the installation of the first air-cooled energy storage container for the 100MWh system business undertaken by Tianneng was completed and successfully delivered to the customer, achieving a breakthrough for the Group in this field.



This air-cooled energy storage container adopts 280Ah batteries, with a service life of more than ten years. Meanwhile, it is geared with equipment such as fire protection, temperature control, monitoring, liquid leakage protection, thermal management system and battery management system, to protect the battery from salt spray, water vapor and dust pollution, ensuring the efficient and stable operation of the system. This system can provide energy storage battery integration solutions for microgrid systems, by coordinating with energy storage systems and photovoltaic systems to achieve functions such as peak shaving and valley filling, smooth output, and peak regulating.

## MANAGEMENT DISCUSSION AND ANALYSIS

### *Fuel cell battery*

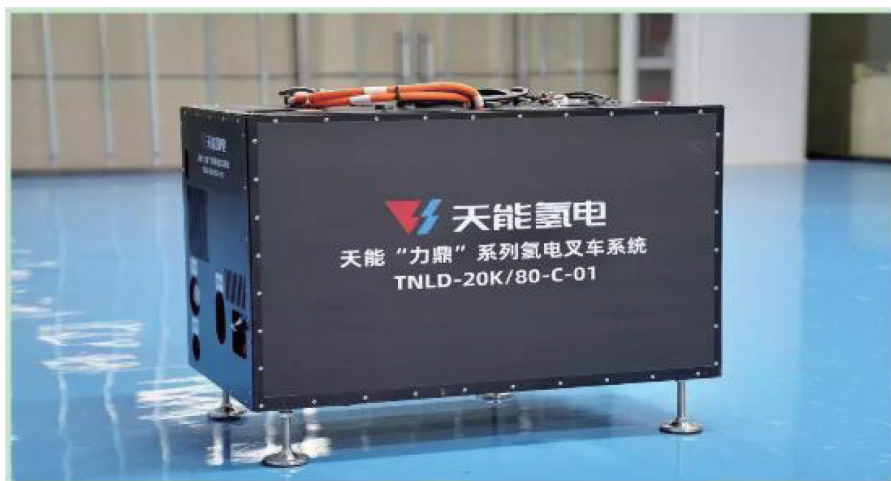
In recent years, since the fuel cell industry has commenced its rapid development, a number of hydrogen energy-related policies and plans have been issued at the national and local government levels to boost and support the industry. The strategic position of the hydrogen energy and fuel cell industry has been specified in documents such as the Medium and Long-Term Plan for the Development of the Hydrogen Energy Industry (2021-2035) 《氫能產業發展中長期規劃(2021-2035年)》 and the Outline of the National Innovation-Driven Development Strategy 《國家創新驅動發展戰略綱要》. By the end of 2021, more than 10 plans for hydrogen energy industry at the provincial and municipal levels across China exceeded, and more than 30 special plans for hydrogen energy projects at the prefecture and district levels have been received, which have greatly promoted the development of the hydrogen energy and fuel cell industries.

Following the general trend, Tianneng's hydrogen energy development has accelerated. After the establishment of relevant wholly-owned subsidiaries, the Company has actively carried out industry-university-institute cooperation. As it has successively carried out technical cooperation with Dalian Institute of Chemical Physics, Chinese Academy of Sciences (中科院大連化物所), Beijing University of Chemical Technology (北京化工大學) etc., its product technical capabilities have been continuously improved.

In terms of industrialisation, the Company has entered into a strategic cooperation agreement with Nanjing Golden Dragon (南京金龍), XCMG (徐工集團), Geely Auto (吉利汽車), Yadea (雅迪) and other manufacturers, to make arrangement for various field terminals such as public transportation, logistics vehicles, engineering vehicles (forklifts), backup power supply, distributed power generation, and two-wheeled vehicles. Skywell Passenger Bus (開沃客車), which cooperates with Nanjing Golden Dragon, and Farizon Passenger Bus (遠程牌客車), which cooperates with Geely Auto, are listed in the product catalogue of MIIT. The Company's fuel cell products have been mass-produced and shipped, which generates revenue. In January 2022, Tianneng won the New Future Talent Award (未來年度新銳獎) at the 2021 TrendBank Hydrogen Energy and Fuel Cell Industry Annual Conference (勢銀氫能與燃料電池產業年會).



In the future, Tianneng will continue to launch a series of higher quality hydrogen fuel cell products covering various fields such as transportation and power supply through a series of innovations as well as expand cooperation with leading enterprises in the hydrogen fuel cell industry, so as to improve the industrial layout.



### (3) Renewable new materials

Tianneng adheres to the concept of green, low-carbon and circular development. From product design to manufacturing and application to regeneration, it keeps optimising the industrial structure and production methods while contributing to the construction of circular economy to solve the problem of global resource circulation. During the reporting period, the Group's renewable new materials business recorded operating income of approximately RMB1,918 million, representing a year-on-year increase of 54.22%. On 21 January 2022, MIIT announced the list of 2021 green manufacturing. The products from six subsidiaries of Tianneng were selected as green design products, and its two subsidiaries were selected as green supply chain management enterprises.





## MANAGEMENT DISCUSSION AND ANALYSIS

### *Lead-acid battery recycling business*

In the first half of 2022, Tianneng has achieved a green “inner loop” of lead-acid battery recycling through production, supply chain and supplier management, green recycling system and platform for information collection, monitoring and disclosure.

Tianneng has four production bases for recycled lead, where 1,000,000 tons of used batteries can be processed annually. In the course of many years of production and operation, Tianneng has established a strong sales network. Through over 400,000 terminal stores across China, it can effectively realise the decentralised recycling, centralised disposal and harmless recycling and utilisation of used batteries, creating a closed-loop economic ecological circle.

On 13 May 2022, Tianneng signed a strategic cooperation agreement with the China Nonferrous Metals Industry Association Recycling Metal Branch (中國有色金屬工業協會再生金屬分會), pursuant to which both parties will give full play to their respective advantages and jointly promote the green cycle business level and core competitiveness of Tianneng.

On 25 May 2022, Tianneng signed a strategic cooperation with Zhejiang University of Technology, pursuant to which both parties will carry out school-enterprise cooperation in respect of advanced processes and technologies related to “carbon neutrality” on recycling and disposal of secondary used batteries, so as to promote the development of scientific research of both parties as well as cultivate industry high-end scientific and technological talents in China, thereby realising the common progress of enterprises, universities and society.



In July 2022, the Key Technologies and Applications of High-value Utilisation of Used Lead-Acid Batteries and Green Cycle of Resources (《廢鉛蓄電池高值利用及資源綠色循環關鍵技術與應用》) Project led by the Company was awarded the first runner-up of 2021 Zhejiang Science and Technology Progress Award (浙江省科學技術進步二等獎). The project focused on the opportunities arising from the large-scale and echelon utilisation of retired batteries in China's used lead-acid battery recycling industry. The "carbon neutrality" technology for recycled lead industry based on echelon utilisation of retired batteries, pure oxygen side-blown molten pool smelting, and echelon utilisation of flue gas waste heat was created to promote the green development of the industry.

In addition, for the renewable resources industry, the Government has created a fair and sustainable operating environment through the two major systems of finance and taxation. The Announcement on Improving the Value-Added Tax Policy for Comprehensive Utilisation of Resources (《關於完善資源綜合利用增值稅政策的公告》) (the "**Announcement**") issued by the Ministry of Finance and the State Administration of Taxation was implemented with effect from 1 March 2022. The Announcement stated that general VAT taxpayers engaged in the recycling of renewable resources pay VAT at the rate of 3% calculated with the simplified tax method when selling the renewable resources acquired. The proportion of tax rebates for integrated and utilised resources named "used batteries and related dismantled materials" has been increased from 30% to 50%.

Tianneng continued to accelerate the global layout of the large-scale recycling business. In addition to obtaining the recycling pilot qualifications in 15 provinces, Tianneng also empowers and creates values for customers in cooperative relationship through online platforms. In the future, the Company's lead-acid battery recycling industry will continue to expand overseas markets.



## MANAGEMENT DISCUSSION AND ANALYSIS

### *Lithium-ion battery recycling business*

The rapid development of the new energy vehicle industry leads to an accelerated growth in the number of retired power batteries. As an essential part of developing the circular economy and facilitating the intensive utilisation of resources, motive battery recycling is conducive to alleviating the limit of lithium resources and lithium prices. It is of great significance for implementing the “dual carbon” strategy and promoting the construction of ecological civilisation.

Currently, Tianneng’s production capacity for lithium-ion battery recycling is 10,000 tons, with the recycling rate of NCM batteries at the forefront of the industry. During the reporting period, affected by the increase in the price of upstream raw materials for lithium-ion batteries, the Company’s revenue and profit in this business increased significantly as compared with the same period of last year. The Company is one of the enterprises qualified with dual white lists for recycling and echelon utilisation across China. With this qualification, the Company can participate in the batteries disposal of battery companies, OEMs and operators, as well as obtain large quantities of retired batteries.

The Company also attaches great importance to the industry-university-institute cooperation with universities and scientific research institutes. In recent years, Tianneng has established extensive cooperative relationship with the Institute of Process Engineering, Chinese Academy of Sciences (中國科學院過程工程研究所), Central South University (中南大學), Zhejiang University of Technology (浙江工業大學) and other expert teams. Relying on these industry-university-institute innovation platforms, the Company has captured a number of key technologies for used battery recycling, greatly accelerating the industrialisation process of technological innovation achievements. In the first half of 2022, the Group has applied in respect of 31 patents for lithium-ion battery recycling, including 21 patents for invention.



In February 2022, Tianneng and the People's Government of Binhai County, Jiangsu Province jointly signed the Investment Agreement for the High-value Recycling and Utilisation Project with an Annual Treatment of 100,000 tons of Used Lithium-ion Batteries (《年處理10萬噸廢舊鋰離子電池高值資源化回收利用項目投資協議》). After such project is completed, the used lithium-ion battery recycling will be at the forefront of the industry as Tianneng will first form its north-south base across East China.

The peak season for the first batch of new energy vehicle motive batteries to be scrapped will be in 2025. At present, the industry is about to experience a period of explosive growth. As such, Tianneng is accelerating the arrangement of the used motive battery recycling industry through cooperation on the recycling and utilisation of used motive batteries and scrapped materials thereof as well as the echelon recycling of motive batteries, so as to explore a classic green development model for the global new energy industry.

### III. FUTURE PROSPECT

In line with the improvement of battery technology and product competitiveness for batteries such as lead-acid batteries and lithium-ion batteries, the Group will strive to research and develop new-generation batteries, stimulate the innovation of the R&D team, facilitate the output arising from the Group's major R&D projects, and accelerate innovation-driven technologies. Recycling and new energy storage segment will be its focus while strengthening the fundamentals of lead-acid batteries.

Tianneng will strengthen the lead-acid battery recycling segment with its solid effort and continuously improve the operation management and equipment technology standards to accelerate the development plan of lithium-ion battery recycling. Building a strong recycling network and improving recycling technology are conducive to forming Tianneng's core competitiveness. The new energy storage business will have an extensive breakthrough to the new market and enhance the edge of various market segments, further increasing the competitiveness of the industry.



## MANAGEMENT DISCUSSION AND ANALYSIS

### Limited resources, unlimited recycling

In recent years, the Chinese government has successively drafted or issued such laws and regulations as the Laws of PRC on the Notice of the General Office of the State Council on Issuing the Implementation Plan for Extended Producer Responsibility (《國務院辦公廳關於印發生產者責任延伸制度推行方案的通知》) and the Interim Measures for the Management of the Recycling and Utilisation of Lead-Acid Batteries (Draft for Comments) (《鉛蓄電池回收利用管理暫行辦法》(徵求意見稿)), with a view to setting out detailed provisions on the recycling and disposal processes of used batteries, establishing an Extended Producer Responsibility scheme for products such as lead-acid batteries and vehicle motive batteries. The objective is for China to recover over 70% of its lead-acid batteries by the end of 2025.

Under the laws of PRC, China strictly prohibits entities without licences or not in compliance with the requirements of the licences from engaging in operations regarding the collection, storage, utilisation and disposal of hazardous wastes. Going forward, the recycling industry will receive growing support for its sound and orderly development, with outdated and substandard capacity to phase out. As an enterprise that has been involved in the industry for many years, Tianneng will further expand the market in the future. While fulfilling its own corporate and social responsibility for production, the Group will also help to achieve the national goal of “dual carbon”.

### Lead-lithium synergy, facilitating energy storage system market

New energy storage is leading the green energy industry to make progress with its one-of-a-kind industrial advantages and its clear direction for development. In the future, relying on its profound and accumulated experience in lead-carbon energy storage technology and lithium-ion battery energy storage technology, Tianneng will further integrate various advantageous technical routes and integrated systems to create a full set of smart energy storage solutions with “smart operation and maintenance, safety, reliability, clean and friendliness”, while taking into account the optimal allocation of innovative resources to promote the integrated development of the industry, academia, and research.



Tianneng will continue to delve into new energy storage business models, explore the application of business models such as shared energy storage, cloud energy storage, energy storage aggregation, and separate energy storage, focus on and dig into the commercial value of the energy storage industry, and develop a reasonable pilot demonstration of new energy storage system. Meanwhile, for the international market, Tianneng will also actively promote international cooperation in the process of new energy storage industrialisation and achieve high-quality introduction and high-level export of new energy storage technologies and industries.

## FINANCIAL REVIEW

### Turnover

The Group's turnover for the reporting period was approximately RMB31,026 million, representing a decrease of approximately 14.47% as compared with the same period last year. Of which, turnover from the manufacturing industry was RMB17,410 million, representing an increase of approximately 8.10% as compared with the same period last year, turnover from trading was RMB13,617 million, representing a decrease of approximately 32.49% as compared with the same period last year.

### Gross profit

The gross profit for the reporting period was approximately RMB2,380 million, representing an increase of approximately 23.01% as compared with the same period last year. It was mainly attributable to a growth in the battery's gross profit margin. The gross profit margin for the reporting period was approximately 7.67%, representing an increase of approximately 2.34 percentage points as compared with the same period last year, of which the gross profit margin of the manufacturing industry was approximately 13.55%, representing an increase of approximately 1.63 percentage points as compared with the same period last year. It was mainly attributable to the increase in prices of products as compared with the same period last year.



## MANAGEMENT DISCUSSION AND ANALYSIS

### Other income

The Group's other income for the reporting period was approximately RMB678 million (for the six months ended 30 June 2021: approximately RMB574 million), representing an increase of approximately 18.06% as compared with the same period last year. It was mainly attributable to the increase in interest income and government grants.

### Distribution and selling costs

Distribution and selling costs increased from approximately RMB409 million in the same period last year to approximately RMB462 million for the reporting period, which was mainly attributable to the increase in salaries and advertising fees.

### Administrative expenses

Administrative expenses increased from approximately RMB441 million in the same period last year to approximately RMB568 million for the reporting period, which was mainly attributable to the increase in salaries.

### Research and development costs

R&D costs increased from approximately RMB616 million in the same period last year to approximately RMB709 million for the reporting period, which was mainly attributable to the increase in the number of R&D projects and optimisation of the R&D team.

### Finance costs

Finance costs increased from approximately RMB118 million in the same period last year to approximately RMB153 million for the reporting period, which was mainly due to the increase in loan size.

### Operating activities cash flow

The net cash generated from operating activities of the Group changed from approximately RMB-2,185 million in the same period last year to the net cash used in operating activities of approximately RMB-326 million for the reporting period. It was mainly attributable to the increase in inventories.

As at 30 June 2022, the equity attributable to the owners of the Company amounted to approximately RMB13,356 million (31 December 2021: approximately RMB12,980 million). The Group's capital structure is the equity attributable to owners of the Company, comprising issued share capital, reserves and accumulated profits.



As at 30 June 2022, the Group had total assets of approximately RMB39.634 billion, increasing by approximately 21.06% as compared with approximately RMB32.739 billion as at 31 December 2021, including total current assets of approximately RMB28.472 billion and total non-current assets of approximately RMB11.162 billion, increasing by approximately 23.33% and 15.64%, respectively. The increase in the current assets was mainly due to the increase in the inventory, notes receivable and bank deposits. The increase in the non-current assets was mainly due to the increase in deposits for the acquisition of property, plant and equipment.

As at 30 June 2022, the total liabilities of the Group were approximately RMB23.752 billion, increasing by approximately 36.80% as compared with approximately RMB17.362 billion as at 31 December 2021, including total current liabilities of approximately RMB21.554 billion and total non-current liabilities of approximately RMB2,198 million, increasing by approximately 40.99% and 5.94%, respectively. The increase in the current liabilities was mainly due to the increase in bank notes and short-term loans held by the Group. The increase in the non-current liabilities was mainly due to the increase in deferred revenue.

As at 30 June 2022, the cash and bank balances of the Group (including pledged bank deposits and bank deposits) were approximately RMB12.059 billion (31 December 2021: approximately RMB11,640 million), of which approximately RMB187 million and approximately RMB336 million are denominated in US dollars and Hong Kong dollars, respectively. As at 30 June 2022, the interest bearing borrowings and loan notes (together as “**interest bearing loans**”) of the Group with maturity of within one year amounted to approximately RMB6,228 million (31 December 2021: approximately RMB2,875 million). The interest bearing loans with maturity of more than one year amounted to approximately RMB1,391 million (31 December 2021: approximately RMB1,409 million). The interest bearing loans of approximately RMB6,151 million were denominated in RMB. The loans denominated in RMB had fixed interest rates ranging from approximately 2.00% to 6.5% (2021: approximately 2.23% to 6.5%) per annum. In conclusion, the borrowings of the Group as at 30 June 2022 remained at a healthy and controllable level. With unutilised credit facilities of approximately RMB5,185 million, the Group will take a cautious stance and maximise the interests of the shareholders and the Company will strike a balance between borrowings and funding utilisation. Moreover, with continuously improving the fund structure as its financial objective in the long run, the Group will optimise its loan structure with further use of long term loans.





## MANAGEMENT DISCUSSION AND ANALYSIS

### Pledge of assets

As at 30 June 2022, the bank facilities and bank borrowings of the Group were secured by its bank deposits, bills receivables, property, plant and equipment, and land use rights. The aggregate net book value of the assets pledged amounted to approximately RMB4,788 million (31 December 2021: approximately RMB4,315 million).

### Gearing ratio

As at 30 June 2022, the Group's gearing ratio, defined as the percentage of the sum of current and non-current portions of interest bearing loans against the total assets, was approximately 19.22% (31 December 2021: approximately 13.08%).

### Exposure to exchange rate fluctuations

As the Group's operations were mainly conducted in China and the majority of its businesses were transacted in RMB, the board of directors (the "**Directors**") of the Company (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 30 June 2022 (31 December 2021: Nil).

### Capital commitments

The amount contracted for but not stated in the condensed consolidated financial statements in respect of the acquisition of property, plant and equipment and commitment to contribute funds to an associate as at 30 June 2022 were approximately RMB2,482 million and RMB88 million, respectively (31 December 2021: approximately RMB2,043 million and RMB128 million).



## EMPLOYEES AND REMUNERATION POLICIES

As at 30 June 2022, the Group employed a total of 26,921 employees (30 June 2021: 25,099). Staff cost of the Group for the reporting period was approximately RMB1,503 million (for the six months ended 30 June 2021: approximately RMB1,146 million). The cost included basic salaries and staff benefits such as discretionary bonus, medical and insurance plans, pension scheme, unemployment insurance plan, etc. Competitive remuneration packages were offered to employees by the Group. The Company has adopted incentive programs to encourage employees' performance and a range of training programs for the development of its staff.

## INTERIM DIVIDEND

The Board does not recommend the payment of any interim dividend for the reporting period (for the six months ended 30 June 2021: Nil).

## SIGNIFICANT INVESTMENTS HELD

Save for the investments in equity securities listed in Hong Kong and the PRC, unlisted equity securities in the PRC and the structured bank deposits, there were no other significant investments held by the Group as at 30 June 2022.

## MANAGEMENT DISCUSSION AND ANALYSIS

### Financial assets at fair value through profit or loss

As at 30 June 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 summarises the Group's financial assets at fair value through profit or loss as at 30 June 2022:—

Issuer	Product category	Principal activities	Investment cost/ nominal value (RMB'000)	Fair value as at 30 June 2022 (RMB'000)	Interest/ dividend received	Percentage of total assets of the Company as at 30 June 2022
Industrial and Commercial Bank of China Limited	Structured deposit	Banking services	120,000.00	120,000.00	–	0.30%
China Construction Bank Corporation	Structured deposit	Banking services	140,000.00	140,000.00	–	0.35%
Ping An Bank Co., Ltd.	Structured deposit	Banking services	130,000.00	130,000.00	–	0.33%
Shanghai Pudong Development Bank Co., Ltd.	Structured deposit	Banking services	180,000.00	180,000.00	–	0.45%
China Merchants Bank Co., Ltd.	Structured deposit	Banking services	300,000.00	300,000.00	–	0.76%
China CITIC Bank	Structured deposit	Banking services	320,000.00	320,000.00	–	0.81%
Hangzhou City Commercial Bank Co., Ltd.	Wealth management product	Banking services	60,000.00	60,000.00	–	0.15%
Bank of Ningbo	Wealth management product	Banking services	110,000.00	110,000.00	–	0.28%
Ping An Bank Co., Ltd.	Wealth management product	Banking services	127,000.00	127,000.00	–	0.32%
Shanghai Pudong Development Bank Co., Ltd.	Wealth management product	Banking services	3,920.00	3,920.00	–	0.01%
Bank of Shanghai	Wealth management product	Banking services	292,000.00	292,000.00	–	0.74%
Industrial Bank Co., Ltd.	Wealth management product	Banking services	330,025.59	330,025.59	–	0.83%
Listed company	Equity securities listed in China	–	36,227.95	42,311.34	–	0.11%
Listed company	Equity securities listed in Hong Kong, China	–	17,887.95	31,207.76	–	0.08%
Futures	Commodity derivative contracts	–	–	2,453.11	–	0.01%
The lock exchange	Forward foreign exchange contract	–	–	9,974.24	–	0.03%



## MATERIAL ACQUISITION AND DISPOSAL

The Group has no material acquisition and disposal as at 30 June 2022.

## DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

For details, please refer to note 20 to the condensed consolidated financial statements.

## IMPORTANT EVENTS SINCE THE END OF THE FINANCIAL PERIOD

### (A) Change of Auditor

ZHONGHUI ANDA CPA LIMITED (“ZHONGHUI ANDA”) has resigned as the auditor of the Group with effect from 5 July 2022. Deloitte Touche Tohmatsu has been appointed as the auditor of the Group with effect from 8 July 2022 to fill the casual vacancy following the resignation of ZHONGHUI ANDA and to hold the office until the conclusion of the forthcoming annual general meeting of the Company.

### (B) Change of Address of Hong Kong Branch Share Registrar and Transfer Office

Tricor Investor Services Limited, the Hong Kong Branch Share Registrar and Transfer Office of the Company, has changed its address from Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong to 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong with effect from 15 August 2022.



## CORPORATE GOVERNANCE

The Company is committed to ensuring high standards of corporate governance. The Board believes that good corporate governance practices are increasingly important for maintaining and promoting investors' confidence. The Company has adopted and complied with the code provisions of the Corporate Governance Code (the "**CG Code**") as contained in Appendix 14 of the Rules Governing the Listing of Securities on the Stock Exchange (the "**Listing Rules**") during the reporting period, except for the code provision C.2.1 of the CG Code. Dr. Zhang Tianren is both the chairman ("**Chairman**") and Chief Executive Officer ("**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.

The primary duties of the Company's audit committee (inter alia) are to review the financial reporting system, the risk management and internal control systems 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 Company's audit committee has reviewed this interim report with the management of the Company and the Company's independent external auditors and recommended its adoption by the Board.

The interim financial information of the Company in this report has not been audited. However, it has been prepared in accordance with Hong Kong Accounting Standard 34 "Interim Financial Reporting" and has been reviewed by the Company's independent external auditors, Deloitte Touche Tohmatsu, in accordance with the Hong Kong Standard on Review Engagement 2410, "Review of Interim Financial Information Performed by the Independent Auditor of the Entity".

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the "**Model Code**") contained in Appendix 10 of the Listing Rules. Having made specific enquiry, all Directors confirmed that they have complied with the required standard for securities transactions set out in the Model Code throughout the six months ended 30 June 2022.

Other than the above disclosures, the Company has also complied with Rules 3.10(1), 3.10(2) and 3.10A of the Listing Rules and appointed three independent non-executive Directors including one with financial management expertise.



**Deloitte.**

**德勤**

**To the Board of Directors of  
Tianneng Power International Limited**

## INTRODUCTION

We have reviewed the condensed consolidated financial statements of Tianneng Power International Limited (the “**Company**”) and its subsidiaries (collectively referred to as the “**Group**”) set out on pages 39 to 75, which comprise the condensed consolidated statement of financial position as of 30 June 2022 and the related condensed consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the six-month period then ended, and certain explanatory notes. The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited require the preparation of a report on interim financial information to be in compliance with the relevant provisions thereof and Hong Kong Accounting Standard 34 “Interim Financial Reporting” (“**HKAS 34**”) issued by the Hong Kong Institute of Certified Public Accountants. The directors of the Company are responsible for the preparation and presentation of these condensed consolidated financial statements in accordance with HKAS 34. Our responsibility is to express a conclusion on these condensed consolidated financial statements based on our review, and to report our conclusion 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.

## SCOPE OF REVIEW

We conducted our review in accordance with Hong Kong Standard on Review Engagements 2410 “Review of Interim Financial Information Performed by the Independent Auditor of the Entity” issued by the Hong Kong Institute of Certified Public Accountants. A review of these condensed consolidated financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Hong Kong Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.



# REPORT ON REVIEW OF CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

## CONCLUSION

Based on our review, nothing has come to our attention that causes us to believe that the condensed consolidated financial statements are not prepared, in all material respects, in accordance with HKAS 34.

## OTHER MATTER

The comparative condensed consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the six-month period ended 30 June 2021 and the relevant explanatory notes included in these condensed consolidated financial statements were extracted from the interim financial information of the Group for six-month period ended 30 June 2021 reviewed by another auditor who expressed an unmodified conclusion on the interim financial information on 27 August 2021. The comparative condensed consolidated statement of financial position as at 31 December 2021 were extracted from the consolidated financial statements of the Group for the year ended 31 December 2021 audited by the same auditor who expressed an unmodified opinion on those statements on 30 March 2022.

## **Deloitte Touche Tohmatsu**

*Certified Public Accountants*

Hong Kong

26 August 2022



## CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the six months ended 30 June 2022

	Notes	Six months ended 30 June	
		2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
Revenue	3	<b>31,026,206</b>	36,276,133
Cost of sales		<b>(28,646,673)</b>	(34,341,730)
Gross profit		<b>2,379,533</b>	1,934,403
Other income	5	<b>677,583</b>	573,914
Other gains and losses	6	<b>(11,488)</b>	65,620
Impairment losses recognised under expected credit loss model, net of reversal	15	<b>(31,575)</b>	(18,838)
Distribution and selling expenses		<b>(461,613)</b>	(409,348)
Administrative expenses		<b>(568,190)</b>	(441,459)
Research and development costs		<b>(708,943)</b>	(615,787)
Other expenses		<b>(7,989)</b>	(11,963)
Share of results of associates		<b>508</b>	(569)
Finance costs		<b>(153,358)</b>	(117,705)
<b>Profit before tax</b>		<b>1,114,468</b>	958,268
Income tax expense	7	<b>(213,321)</b>	(214,946)
<b>Profit for the period</b>	8	<b>901,147</b>	743,322



## INTERIM FINANCIAL INFORMATION

### CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (CONTINUED)

For the six months ended 30 June 2022

	Six months ended 30 June	
	2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
<b>Other comprehensive expenses:</b>		
<i>Item that will not be reclassified to profit or loss:</i>		
Fair value loss on investments in equity instruments at fair value through other comprehensive income ("FVTOCI")	<b>(5,241)</b>	(64,770)
	<b>(5,241)</b>	(64,770)
<i>Item that may be reclassified subsequently to profit or loss:</i>		
Fair value gain (loss) on debt instruments measured at FVTOCI, net of income tax	<b>5,687</b>	(915)
Other comprehensive income (expenses) for the period, net of income tax	<b>446</b>	(65,685)
<b>Total comprehensive income for the period</b>	<b>901,593</b>	677,637



## CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (CONTINUED)

For the six months ended 30 June 2022

	Note	Six months ended 30 June	
		2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
<b>Profit for the period attributable to:</b>			
Owners of the Company		<b>759,754</b>	660,863
Non-controlling interests		<b>141,393</b>	82,459
		<b>901,147</b>	743,322
<b>Total comprehensive income for the period attributable to:</b>			
Owners of the Company		<b>760,200</b>	595,178
Non-controlling interests		<b>141,393</b>	82,459
		<b>901,593</b>	677,637
<b>Earnings per share</b>	10		
– Basic (RMB cents)		<b>67.47</b>	58.68
– Diluted (RMB cents)		<b>66.23</b>	57.24

# INTERIM FINANCIAL INFORMATION

## CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

At 30 June 2022

	Notes	30/06/2022 RMB'000 (unaudited)	31/12/2021 RMB'000 (audited)
<b>Non-current Assets</b>			
Property, plant and equipment	11	<b>7,259,010</b>	6,504,488
Right-of-use assets	11	<b>1,349,864</b>	1,099,183
Goodwill		<b>23,305</b>	23,305
Interests in associates		<b>146,576</b>	36,115
Equity instruments at FVTOCI		<b>261,806</b>	267,489
Deferred tax assets	12	<b>783,707</b>	688,263
Deposits for acquisition of property, plant and equipment		<b>970,297</b>	743,273
Loan receivables		<b>367,524</b>	284,928
Long-term receivables		<b>-</b>	5,136
		<b>11,162,089</b>	9,652,180
<b>Current Assets</b>			
Inventories		<b>7,045,572</b>	4,484,624
Properties under development for sale		<b>704,112</b>	768,189
Bills, trade and other receivables	13	<b>4,843,559</b>	3,328,917
Loan receivables		<b>638,801</b>	203,954
Amounts due from related parties	24	<b>802</b>	3,479
Amount due from an associate	24	<b>-</b>	70,000
Debt instruments at FVTOCI	14	<b>981,163</b>	987,055
Financial assets at fair value through profit or loss ("FVTPL")	16	<b>2,198,892</b>	1,600,095
Pledged bank deposits		<b>3,311,697</b>	2,943,087
Bank balances and cash		<b>8,747,210</b>	8,697,364
		<b>28,471,808</b>	23,086,764



## CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

At 30 June 2022

	Notes	30/06/2022 RMB'000 (unaudited)	31/12/2021 RMB'000 (audited)
<b>Current liabilities</b>			
Bills, trade and other payables	17	<b>10,836,581</b>	8,923,504
Amounts due to related parties	24	<b>239,613</b>	239,970
Derivative financial instruments		–	263
Taxation liabilities		<b>232,173</b>	348,748
Borrowings – current portion	18	<b>6,228,086</b>	2,874,839
Lease liabilities		<b>5,064</b>	8,727
Provisions		<b>727,444</b>	720,292
Contract liabilities		<b>3,285,218</b>	2,129,216
Deferred government grants		–	42,026
		<b>21,554,179</b>	15,287,585
<b>Net Current Assets</b>		<b>6,917,629</b>	7,799,179
<b>Total Assets less Current Liabilities</b>		<b>18,079,718</b>	17,451,359
<b>Non-current liabilities</b>			
Deferred tax liabilities	12	<b>40,310</b>	60,407
Borrowings – non-current portion	18	<b>1,391,287</b>	1,408,682
Lease liabilities		<b>10,561</b>	13,637
Deferred government grants		<b>755,537</b>	591,701
		<b>2,197,695</b>	2,074,427
		<b>15,882,023</b>	15,376,932

## INTERIM FINANCIAL INFORMATION

### CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION (CONTINUED)

At 30 June 2022

	Note	30/06/2022 RMB'000 (unaudited)	31/12/2021 RMB'000 (audited)
<b>Capital and reserves</b>			
Share capital	19	<b>109,850</b>	109,850
Share premium and reserves		<b>13,246,252</b>	12,870,646
Equity attributable to the owners of the Company		<b>13,356,102</b>	12,980,496
Non-controlling interests		<b>2,525,921</b>	2,396,436
<b>Total Equity</b>		<b>15,882,023</b>	15,376,932

# INTERIM FINANCIAL INFORMATION



## CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the six months ended 30 June 2022

	Attributable to owners of the Company											Non-controlling interests RMB'000	Total RMB'000
	Share capital RMB'000	Share premium RMB'000	Special reserve RMB'000	Capital reserve RMB'000	Share options reserve RMB'000	Investment revaluation reserve RMB'000	Other FVTOCI reserve RMB'000	Statutory surplus reserve fund RMB'000	Discretionary surplus reserve fund RMB'000	Accumulated profits RMB'000	Subtotal RMB'000		
<b>At 1 January 2022</b>	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 period	-	-	-	-	-	-	-	-	-	759,754	759,754	141,393	901,147
Other comprehensive (expense) income for the period	-	-	-	-	-	(5,241)	5,687	-	-	-	446	-	446
Total comprehensive (expense) income for the period	-	-	-	-	-	(5,241)	5,687	-	-	759,754	760,200	141,393	901,593
Capital contribution from non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	89,216	89,216
Dividend recognised as distribution (note 9)	-	-	-	-	-	-	-	-	-	(384,594)	(384,594)	-	(384,594)
Dividend paid payable to non-controlling interest	-	-	-	-	-	-	-	-	-	-	-	(103,040)	(103,040)
Disposal of investments in equity instruments at FVTOCI	-	-	-	-	-	(102)	-	-	-	102	-	-	-
Forfeiture of equity-settled share-based payment	-	-	-	-	(453)	-	-	-	-	453	-	-	-
Recognition of equity-settled share-based payment (note 20)	-	-	-	-	-	-	-	-	-	-	-	1,916	1,916
<b>At 30 June 2022 (unaudited)</b>	109,850	778,567	10,000	3,658,601	34,902	(222,061)	-	1,122,931	143,212	7,720,100	13,356,102	2,525,921	15,882,023

	Attributable to owners of the Company											Non-controlling interests RMB'000	Total RMB'000
	Share capital RMB'000	Share premium RMB'000	Special reserve RMB'000	Capital reserve RMB'000	Share options reserve RMB'000	Investment revaluation reserve RMB'000	Other FVTOCI reserve RMB'000	Statutory surplus reserve fund RMB'000	Discretionary surplus reserve fund RMB'000	Accumulated profits RMB'000	Subtotal RMB'000		
<b>At 1 January 2021</b>	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 period	-	-	-	-	-	-	-	-	-	660,863	660,863	82,459	743,322
Other comprehensive expenses for the period	-	-	-	-	-	(64,770)	(915)	-	-	-	(65,685)	-	(65,685)
Total comprehensive (expenses) income for the period	-	-	-	-	-	(64,770)	(915)	-	-	660,863	595,178	82,459	677,637
Capital contribution from non-controlling interests	-	-	-	-	-	-	-	-	-	-	-	178,500	178,500
Issue of shares of a subsidiary	-	-	-	3,407,043	-	-	-	-	-	-	3,407,043	1,322,690	4,729,733
Dividend recognised as distribution (note 9)	-	-	-	-	-	-	-	-	-	(374,810)	(374,810)	-	(374,810)
Dividend paid payable to non-controlling interest	-	-	-	-	-	-	-	-	-	-	-	(78,540)	(78,540)
Forfeiture of equity-settled share-based payment	-	-	-	-	-	-	-	-	-	133	133	(133)	-
Recognition of equity-settled share-based payment (note 20)	-	-	-	-	-	-	-	-	-	-	-	6,603	6,603
<b>At 30 June 2021 (unaudited)</b>	109,850	778,567	10,000	3,658,601	36,984	(176,877)	(13,096)	1,012,920	143,212	6,813,545	12,373,704	2,224,708	14,598,412

# INTERIM FINANCIAL INFORMATION

## CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

For the six months ended 30 June 2022

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
<b>Net cash used in operating activities</b>	<b>(325,986)</b>	(2,185,192)
<b>Investing activities</b>		
Interest received	<b>121,949</b>	92,783
Acquisition of investments in associates	<b>(42,953)</b>	(3,000)
Disposal of investment in an associate	<b>3,000</b>	–
Proceeds from disposal of property, plant and equipment	<b>5,697</b>	8,986
Purchase of property, plant and equipment	<b>(793,125)</b>	(452,274)
Deposits paid for the acquisition of property, plant and equipment	<b>(611,863)</b>	(399,358)
Payments for leasehold lands	<b>(130,300)</b>	(92,698)
Placement of structured bank deposits	<b>(6,254,096)</b>	(6,479,586)
Withdrawal of structured bank deposits	<b>5,699,316</b>	4,747,086
Placement of pledged bank deposits	<b>(3,311,697)</b>	(1,758,728)
Withdrawal of pledged bank deposits	<b>2,943,087</b>	1,303,060
Cash inflow from commodity derivative contracts	<b>258,415</b>	512,854
Cash outflow from commodity derivative contracts	<b>(247,759)</b>	(490,939)
Payment to independent third parties for loan receivables	<b>(640,534)</b>	(307,528)
Receipt of repayment for loan receivables	<b>120,375</b>	81,409
<b>Net cash used in investing activities</b>	<b>(2,880,488)</b>	(3,237,933)



## CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

For the six months ended 30 June 2022

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
<b>Financing activities</b>		
New borrowings raised	<b>4,988,569</b>	5,267,789
Repayments of borrowings	<b>(1,710,737)</b>	(860,057)
Dividends paid to non-controlling interests	<b>(103,040)</b>	(78,540)
Capital contribution from a non-controlling shareholder	<b>89,216</b>	178,500
Proceeds from issue of shares of a subsidiary	<b>-</b>	4,729,733
Repayment of lease liabilities	<b>(7,688)</b>	(2,648)
<b>Net cash from financing activities</b>	<b>3,256,320</b>	9,234,777
<b>Net increase in cash and cash equivalents</b>	<b>49,846</b>	3,811,652
Cash and cash equivalents at the beginning of the period	<b>8,697,364</b>	4,456,305
<b>Cash and cash equivalents at the end of the period, represented by bank balances and cash</b>	<b>8,747,210</b>	8,267,957





# INTERIM FINANCIAL INFORMATION

## NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

For the six months ended 30 June 2022

### 1. BASIS OF PREPARATION

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 Company and its subsidiaries are collectively referred to as the “Group”.

The Group’s condensed consolidated financial statements are presented in Renminbi (“**RMB**”), which is also the functional currency of the Company.

The condensed consolidated financial statements have been prepared in accordance with Hong Kong Accounting Standard 34 “*Interim Financial Reporting*” issued by the Hong Kong Institute of Certified Public Accountants (“**HKICPA**”) as well as the applicable disclosure requirements of Appendix 16 to the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange.



## 2. PRINCIPAL ACCOUNTING POLICIES

The condensed consolidated financial statements have been prepared on the historical cost basis, except for certain financial instruments, which are measured at fair values.

Other than additional accounting policies resulting from application of amendments to Hong Kong Financial Reporting Standards (“**HKFRSs**”), the accounting policies and methods of computation used in the condensed consolidated financial statements for the six months ended 30 June 2022 are the same as those presented in the Group’s annual financial statements for the year ended 31 December 2021.

### Application of amendments to HKFRSs

In the current interim period, the Group has applied the following amendments to HKFRSs issued by the 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 Group’s condensed 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 interim period has had no material impact on the Group’s financial positions and performance for the current and prior periods and/or on the disclosures set out in these condensed consolidated financial statements.

# INTERIM FINANCIAL INFORMATION

## 3. REVENUE FROM CONTRACTS WITH CUSTOMERS

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
An analysis of revenue is as follows:		
Manufacturing business		
Lead-acid battery products	<b>14,212,873</b>	13,119,025
Renewable resources product	<b>1,917,867</b>	1,243,582
Lithium battery products	<b>762,997</b>	423,792
Others	<b>515,808</b>	1,318,815
Trading	<b>13,616,661</b>	20,170,919
	<b>31,026,206</b>	36,276,133
<b>Geographical markets</b>		
Mainland China	<b>30,815,846</b>	36,194,398
Others	<b>210,360</b>	81,735
	<b>31,026,206</b>	36,276,133
<b>Timing of revenue recognition</b>		
A point in time	<b>30,643,322</b>	35,400,437
Over time	<b>382,884</b>	875,696
	<b>31,026,206</b>	36,276,133



## 4. SEGMENT INFORMATION

The following is an analysis of the Group's revenue and results by operating and reportable segments for the period:

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
<b>Segment revenue</b>		
Manufacturing business		
– external sales	<b>17,409,545</b>	16,105,214
– inter-segment sales	<b>1,632</b>	14,905
Trading		
– external sales	<b>13,616,661</b>	20,170,919
– inter-segment sales	<b>265,176</b>	326,259
Segment revenue	<b>31,293,014</b>	36,617,297
Eliminations	<b>(266,808)</b>	(341,164)
Group revenue	<b>31,026,206</b>	36,276,133
<b>Segment result</b>		
Manufacturing business	<b>904,848</b>	723,397
Trading	<b>(3,850)</b>	17,563
	<b>900,998</b>	740,960
<b>Unallocated</b>		
Other gains and losses	<b>4,021</b>	8,845
Share of results of associates	<b>508</b>	(569)
Corporate administrative expenses	<b>(4,370)</b>	(5,167)
Financial costs	<b>(10)</b>	(747)
Profit for the period	<b>901,147</b>	743,322

# INTERIM FINANCIAL INFORMATION

## 5. OTHER INCOME

	Six months ended 30 June	
	2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
Government grants		
– grants related to income (note i)	<b>437,102</b>	332,915
– grants related to assets (note ii)	<b>19,896</b>	20,913
Interest income	<b>121,949</b>	82,353
Income from sales of scrap materials	<b>93,299</b>	100,278
Others	<b>5,337</b>	37,455
	<b>677,583</b>	573,914

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 equipment of certain subsidiaries of the Group, which were included in the condensed 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.



## 6. OTHER GAINS AND LOSSES

	Six months ended 30 June	
	2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
Gains (losses) from changes in fair value of financial assets at FVTPL		
– structured bank deposits	<b>37,166</b>	27,291
– investments in listed equity securities	<b>(5,576)</b>	(11,503)
– foreign currency forward contracts	<b>9,974</b>	–
– commodity derivative contracts	<b>13,372</b>	22,433
Loss on disposals/write off of property, plant and equipment	<b>(23,579)</b>	(10,839)
Net foreign exchange (losses) gains	<b>(49,495)</b>	38,238
Others	<b>6,650</b>	–
	<b>(11,488)</b>	65,620

## 7. INCOME TAX EXPENSE

	Six months ended 30 June	
	2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
PRC Enterprise Income Tax (“EIT”)		
– Current tax	<b>296,256</b>	278,902
Deferred tax (note 12)		
– Current period	<b>(82,935)</b>	(63,956)
	<b>213,321</b>	214,946

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 tax are exempted as no business carried out in Cayman Islands and BVI under the tax laws of the Cayman Islands and the BVI, respectively.

## INTERIM FINANCIAL INFORMATION

### 7. INCOME TAX EXPENSE (CONTINUED)

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

The income tax expense of the Group is recognised based on the PRC EIT rate of 25% during the both periods. Certain subsidiaries of the Group were accredited as High-Tech companies and enjoyed a tax rate of 15%.

### 8. PROFIT FOR THE PERIOD

	Six months ended 30 June	
	2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
Profit for the period has been arrived at after charging:		
Depreciation of property, plant and equipment	<b>331,261</b>	283,147
Depreciation of right-of-use assets	<b>17,989</b>	12,333
Allowances of inventories (included in cost of sales)	<b>13,518</b>	–



## 9. DIVIDENDS

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
Dividends declared during the period:		
Six months ended 30 June 2022: 2021 final dividend of HK\$40.00 cents (equivalent to RMB32.54 cents) (six months ended 30 June 2021: 2020 final dividend of HK\$40.00 cents (equivalent to RMB33.28 cents)) per ordinary share	<b>384,594</b>	374,810

The directors do not recommend the payment of an interim dividend for the six months ended 30 June 2022 and 30 June 2021.



## INTERIM FINANCIAL INFORMATION

### 10. EARNINGS PER SHARE

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
<u>Earnings:</u>		
Earnings for the purposes of calculating basic and diluted earnings per share – attributable to the owners of the Company	<b>759,754</b>	660,863
<u>Number of shares:</u>		
Weighted average number of ordinary shares for the purpose of calculating basic earnings per share	<b>1,126,124,500</b>	1,126,124,500
Effect of dilutive potential ordinary shares – share options	<b>21,087,042</b>	28,445,165
Weighted average number of ordinary shares for the purpose of calculating diluted earnings per share	<b>1,147,211,542</b>	1,154,569,665

### 11. MOVEMENTS IN PROPERTY, PLANT AND EQUIPMENT AND RIGHT-OF-USE ASSETS

During the current interim period, the Group disposed of certain property, plant and equipment with an aggregate carrying amount of RMB29,276,000 (six months ended 30 June 2021: RMB19,825,000) for cash proceeds of RMB5,697,000 (six months ended 30 June 2021: RMB8,986,000), resulting in a loss on disposal of RMB23,579,000 (six months ended 30 June 2021: RMB10,839,000).

In addition, during the current interim period, the Group purchased RMB301,865,000, RMB739,634,000 and RMB25,811,000 (six months ended 30 June 2021: RMB99,919,000, RMB393,206,000 and RMB39,075,000) on additions of machinery and manufacturing plant, construction in progress and others in the PRC respectively.

During the current interim period, upfront payments for leasehold lands in the PRC, amounting to RMB130,300,000 (six months ended 30 June 2021: RMB92,698,000), were recognised by the Group as right-of-use assets for 50 years on lease commencement.



## 12. DEFERRED TAXATION

The followings are the major deferred tax assets (liabilities) recognised and movements thereon during the current and prior interim period:

	Deferred Government grants RMB'000	Withholding tax on undistributed profits RMB'000	Fair values adjustments on property, plant and equipment and prepaid lease payments arising from acquisition of subsidiaries RMB'000	Interest capitalisation RMB'000	Allowances for inventories, trade and other receivables RMB'000	Accrued warranty RMB'000	Fair value change on debt instruments at FVOCI RMB'000	Accrued expenses RMB'000	Impairment loss on property, plant and equipment RMB'000	Tax losses RMB'000	Others RMB'000	Total RMB'000
At 1 January 2021	86,494	(37,910)	(12,883)	(10,715)	62,765	135,234	4,047	46,937	2,464	121,666	(2,326)	395,763
(Charge)/credit to profit or loss (unaudited)	(861)	-	-	549	(15,178)	2,951	-	2,474	-	79,959	(5,940)	63,956
Charge to other comprehensive income (unaudited)	-	-	-	-	-	-	(138)	-	-	-	-	(138)
At 30 June 2021 (unaudited)	85,623	(37,910)	(12,883)	(10,166)	47,589	138,185	3,909	49,411	2,464	201,625	(8,266)	495,931

	Deferred Government grants RMB'000	Withholding tax on undistributed profits RMB'000	Fair values adjustments on property, plant and equipment and prepaid lease payments arising from acquisition of subsidiaries RMB'000	Interest capitalisation RMB'000	Provision for inventories, trade and other receivables RMB'000	Accrued warranty RMB'000	Fair value change on equity investment at FVOCI RMB'000	Accrued expenses RMB'000	Impairment loss on property, plant and equipment RMB'000	Tax losses RMB'000	Others RMB'000	Total RMB'000
At 1 January 2022	88,526	(36,647)	(12,883)	(9,617)	56,017	154,290	1,894	76,404	2,464	308,668	(1,260)	627,856
Credit/(charge) to profit or loss (unaudited)	(1,148)	(14,778)	1,072	250	(6,394)	(1,000)	-	(8,377)	-	112,650	660	82,935
Reversal on payment of withholding tax on distribution of earnings from the PRC subsidiaries (unaudited)	-	34,500	-	-	-	-	-	-	-	-	-	34,500
Charge to other comprehensive income (unaudited)	-	-	-	-	-	-	(1,894)	-	-	-	-	(1,894)
At 30 June 2022 (unaudited)	87,378	(16,925)	(11,811)	(9,367)	49,623	153,290	-	68,027	2,464	421,318	(600)	743,397

# INTERIM FINANCIAL INFORMATION

## 12. DEFERRED TAXATION (CONTINUED)

The following is the analysis of the deferred tax balances for financial reporting purposes:

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Deferred tax assets	<b>783,707</b>	688,263
Deferred tax liabilities	<b>(40,310)</b>	(60,407)
	<b>743,397</b>	627,856

As at the end of the current interim period, the Group has unused tax losses of approximately RMB429,159,000 (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).

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 RMB8,729 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.



## 13. BILLS, TRADE AND OTHER RECEIVABLES

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Bills receivables*	<b>1,347,224</b>	–
Trade receivables	<b>1,642,405</b>	1,868,648
Less: Allowance for credit losses	<b>(245,395)</b>	(253,511)
Other receivables	<b>1,397,010</b>	1,615,137
Prepayments for materials	<b>98,660</b>	106,965
PRC value added tax and EIT recoverable	<b>1,119,448</b>	1,203,124
	<b>881,217</b>	403,691
	<b>4,843,559</b>	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. Bills receivables held by the Group as at 30 June 2022 will mature within 1 year.

The Group allows an average credit period of 45 days to customers.

## INTERIM FINANCIAL INFORMATION

### 13. BILLS, TRADE AND OTHER RECEIVABLES (CONTINUED)

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

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
0 to 45 days	<b>1,001,993</b>	978,311
46 to 90 days	<b>212,209</b>	349,392
91 to 180 days	<b>41,558</b>	160,253
181 to 365 days	<b>31,350</b>	86,048
1 year to 2 years	<b>92,965</b>	24,986
Over 2 years	<b>16,935</b>	16,147
	<b>1,397,010</b>	1,615,137

### 14. DEBT INSTRUMENTS AT FVTOCI

The balance as at 30 June 2022 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:

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
0 to 180 days	<b>981,163</b>	885,953
181 to 365 days	-	101,102
	<b>981,163</b>	987,055



**14. DEBT INSTRUMENTS AT FVTOCI (CONTINUED)**

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 period end.

**15. IMPAIRMENT ASSESSMENT ON FINANCIAL ASSETS SUBJECT TO EXPECTED CREDIT LOSS (“ECL”) MODEL**

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
Impairment loss recognised in respect of		
Trade receivables	<b>20,521</b>	12,707
Other receivables	<b>8,338</b>	4,919
Loan receivables	<b>2,716</b>	1,212
	<b>31,575</b>	18,838

The basis of determining the inputs and assumptions and the estimation techniques used in the condensed consolidated financial statements for the six months ended 30 June 2022 are the same as those followed in the preparation of the Group's annual financial statements for the year ended 31 December 2021.

**16. FINANCIAL ASSETS AT FVTPL**

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Structured bank deposits	<b>2,112,946</b>	1,521,000
Equity securities listed in Mainland China	<b>42,311</b>	39,610
Equity securities listed in Hong Kong	<b>31,208</b>	39,485
Foreign currency forward contracts	<b>9,974</b>	–
Commodity derivative contracts	<b>2,453</b>	–
	<b>2,198,892</b>	1,600,095

## INTERIM FINANCIAL INFORMATION

### 17. BILLS, TRADE AND OTHER PAYABLES

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Trade payables	<b>3,427,163</b>	3,004,111
Bills payables	<b>4,676,014</b>	3,278,323
Dividend payables	<b>393,074</b>	7,916
Other payables and accrued charges	<b>2,340,330</b>	2,633,154
	<b>10,836,581</b>	8,923,504

The following is an aged analysis of trade payables, presented based on invoice date at the end of the reporting period:

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
0 – 90 days	<b>3,202,944</b>	2,879,511
91 – 180 days	<b>98,538</b>	5,883
181 – 365 days	<b>59,147</b>	61,971
1 – 2 years	<b>40,048</b>	27,333
Over 2 years	<b>26,486</b>	29,413
	<b>3,427,163</b>	3,004,111

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

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
0 – 180 days	<b>4,624,564</b>	3,228,323
181 – 365 days	<b>51,450</b>	50,000
	<b>4,676,014</b>	3,278,323



## 18. BORROWINGS

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Bank borrowings	<b>7,276,475</b>	4,065,392
Other borrowings*	<b>342,898</b>	218,129
	<b>7,619,373</b>	4,283,521
Secured	<b>601,819</b>	179,675
Unsecured	<b>7,017,554</b>	4,103,846
	<b>7,619,373</b>	4,283,521
Carrying amounts repayable:		
Within one year	<b>6,228,086</b>	2,874,839
Within a period of more than one year but not exceeding two years	<b>746,640</b>	428,980
Within a period of more than two years but not more than five years	<b>632,870</b>	964,009
Over five years	<b>11,777</b>	15,693
	<b>7,619,373</b>	4,283,521
Less: Amounts due within one year shown under current liabilities	<b>(6,228,086)</b>	(2,874,839)
Amounts shown under non-current liabilities	<b>1,391,287</b>	1,408,682

\* As at 30 June 2022, other borrowings amounting to RMB104,575,000 (31 December 2021: RMB101,558,000) were from a related party. Details are set out in note 24.

Details of assets pledged by the Group at the end of the reporting period are set out in note 21.



# INTERIM FINANCIAL INFORMATION

## 19. 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, 30 June 2021, 1 January 2022 and 30 June 2022	2,000,000,000	212,780
Issued and fully paid:		
At 1 January 2021, 30 June 2021, 1 January 2022 and 30 June 2022	1,126,124,500	109,850

## 20. 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.



## 20. SHARE-BASED PAYMENTS (CONTINUED)

### Share options scheme (Continued)

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 Scheme during the six months ended 30 June 2022 and 30 June 2021.

Category	Grant date	Exercisable period	Exercise price	Outstanding at 01/01/2022	Forfeited during the period	Outstanding at 30/06/2022
Option C	16.6.2014	16.6.2015-15.6.2024	HK\$2.90	34,794,000	(450,000)	34,344,000
Exercisable at the end of the period						34,344,000

Category	Grant date	Exercisable period	Exercise price	Outstanding at 01/01/2021	Forfeited during the period	Outstanding at 30/06/2021
Option C	16.6.2014	16.6.2015-15.6.2024	HK\$2.90	35,410,500	(373,500)	35,037,000
Exercisable at the end of the period						35,037,000



## INTERIM FINANCIAL INFORMATION

### 20. SHARE-BASED PAYMENTS (CONTINUED)

#### Share options scheme (Continued)

No options were exercised during the six months ended 30 June 2022 and 2021.

During the six months ended 30 June 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 Battery Group Co., Ltd. ("**Tianneng Battery**") adopted a share award scheme for eligible senior management and eligible employees of Tianneng Battery 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 Battery and its subsidiaries.

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

These shares are restricted for sale until the fourth anniversary date after the initial public offering of Tianneng Battery in A-share market (the "**Qualified IPO**"). Upon the expiry of restriction of the awarded shares, the Limited Partnership shall dispose the awarded shares at the prevailing market price and transfer the proceeds in relation to the awarded shares to the respective Selected Employees.



## 20. SHARE-BASED PAYMENTS (CONTINUED)

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

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 restricted shares granted on 23 May 2019 amounted to approximately RMB71,367,000. During the current interim period, an expense of approximately RMB1,916,000 (six months ended 30 June 2021: RMB6,603,000) was recognised by the Group in relation to restricted shares granted by Tianneng Battery under the Share Award Scheme.

## 21. PLEDGE OF ASSETS

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

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Bank deposits	<b>3,311,697</b>	2,943,087
Financial assets at FVTPL		
– Structured bank deposits	<b>322,026</b>	392,682
Property, plant and equipment	<b>524,447</b>	429,023
Debt instruments at FVTOCI	<b>474,603</b>	450,913
Right-of-use assets	<b>132,893</b>	99,749
Bills receivables	<b>22,396</b>	–
	<b>4,788,062</b>	4,315,454

# INTERIM FINANCIAL INFORMATION

## 22. CAPITAL COMMITMENTS

	<b>30/06/2022</b> <b>RMB'000</b> <b>(unaudited)</b>	31/12/2021 RMB'000 (audited)
Contracted for but not provided in the condensed consolidated financial statements in respect of the acquisition of property, plant and equipment	<b>2,481,586</b>	2,043,330
Commitment to contribute funds to an associate	<b>88,000</b>	128,000
	<b>2,569,586</b>	2,171,330

## 23. FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS

### Fair value measurements and valuation process

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table gives information about how the fair value of these financial assets and financial liabilities are determined, as well as the level of the fair value hierarchy into which the fair value measurements are categorised (level 1 to 3) based on the degree to which the inputs to the fair value measurements is observable.

- Level 1 fair value measurements are based on quoted prices (unadjusted) in active market for identical assets or liabilities;
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).



## 23. FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED)

Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

Financial assets	Fair value as at		Fair value hierarchy	Valuation technique and key input	Significant unobservable input	Relationship of unobservable inputs to fair value
	30/06/2022 (unaudited)	31/12/2021 (audited)				
Listed equity securities classified as financial assets at FVTPL	<b>Listed equity securities in Mainland China: RMB42,311,000</b>	Listed equity securities in Mainland China: RMB39,610,000	Level 1	Quoted transaction prices in active markets.	N/A	N/A
	<b>Listed equity securities in Hong Kong: RMB31,208,000</b>	Listed equity securities in Hong Kong: RMB39,485,000				
Listed equity instruments at FVTOCI	<b>Listed equity securities in Hong Kong: RMB176,520,000</b>	Listed equity securities in Hong Kong: RMB200,937,000	Level 1	Quoted bid transaction in an active market.	N/A	N/A
	<b>Listed equity securities in Mainland China: RMB40,286,000</b>					
Foreign currency forward contracts	<b>Assets: RMB9,974,000</b>	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	<b>Assets: RMB2,453,000</b>	Liabilities: RMB263,000	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

## INTERIM FINANCIAL INFORMATION

### 23. FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED)

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

Financial assets	Fair value as at		Fair value hierarchy	Valuation technique and key input	Significant unobservable input	Relationship of unobservable inputs to fair value
	30/06/2022 (unaudited)	31/12/2021 (audited)				
Debt instruments at FVTOCI	<b>RMB981,163,000</b>	RMB987,055,000	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	<b>RMB2,112,946,000</b>	RMB1,521,000,000	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	<b>RMB45,000,000</b>	RMB66,552,000	Level 3	Backsolve from recent transaction price	Recent transaction price	The higher the recent transaction price, the higher the fair value



## 23. FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS (CONTINUED)

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

### 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 2022 (audited)	1,521,000	66,552
Total gains	37,166	102
– in profit or loss	37,166	–
– in other comprehensive income	–	102
Purchases	6,254,096	–
Transfers out of Level 3 (note)	–	(21,212)
Disposals/settlements	(5,699,316)	(442)
At 30 June 2022 (unaudited)	2,112,946	45,000

Note: The Group owns 0.183% 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 30 June 2022 amounts to RMB40,286,000 (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 30 June 2022 was determined based on a quoted transaction price and was classified as Level 1 of the fair value hierarchy.



## INTERIM FINANCIAL INFORMATION

### 24. RELATED PARTY TRANSACTIONS

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

Name of related company	Nature of transactions	Six months ended 30 June	
		2022 RMB'000 (unaudited)	2021 RMB'000 (unaudited)
浙江暢通科技有限公司 Zhejiang Changtong Technology Company Limited ("Changtong Technology") (note i)	Purchase of materials Sales of materials Interest expense	258,767 1,079 3,017	228,607 452 –
長興遠鴻機械有限公司 Changxing Yuanhong Machinery Company Limited ("Yuanhong Machinery") (note ii)	Purchase of materials	633	350
浙江長興欣欣包裝有限公司 Zhejiang Changxing Xin Xin Packaging Co., Ltd. ("Xin Xin Packaging") (note iii)	Purchase of consumables	1,869	1,180
濟源市萬洋冶煉(集團)有限公司 Jiyuan City Wanyang Smelting (Group) Co., Ltd. ("Wanyang Group") (note iv)	Purchase of materials Sale of goods Rental paid	398,143 70,005 941	507,229 55,648 941
浙江昊楊物產管理有限公司 Zhejiang Haoyang Property Management Co., Ltd ("Haoyang Property Management") (note v)	Property management fees	5,298	–
長興金陵大酒店 Changxing Jin Ling Hotel (note v)	Hotel expense	25	449



## 24. RELATED PARTY TRANSACTIONS (CONTINUED)

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

<b>Name of related company</b>	<b>30/06/2022 RMB'000 (unaudited)</b>	31/12/2021 RMB'000 (audited)
Changtong Technology	<b>198,537</b>	236,469
Yuanhong Machinery	<b>541</b>	493
Wanyang Group	<b>40,535</b>	3,008
	<b>239,613</b>	239,970

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

<b>Name of related parties</b>	<b>30/06/2022 RMB'000 (unaudited)</b>	31/12/2021 RMB'000 (audited)
Haoyang Property Management	-	3,479
Changtong Technology	<b>103</b>	-
Wanyang Group	<b>699</b>	-
	<b>802</b>	3,479

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

## INTERIM FINANCIAL INFORMATION

### 24. RELATED PARTY TRANSACTIONS (CONTINUED)

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

<b>Name of related company</b>	<b>30/06/2022 RMB'000 (unaudited)</b>	31/12/2021 RMB'000 (audited)
浙江谷尚智慧科技有限公司	-	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 interim period.

Details of the other borrowings from a related party are as follows:

<b>Name of related company</b>	<b>30/06/2022 RMB'000 (unaudited)</b>	31/12/2021 RMB'000 (audited)
Changtong Technology	<b>104,575</b>	101,558

The other borrowings from a related party are unsecured, non-trade in nature and carry interests at 6% per annum.

During the six months ended 30 June 2022, 天暢控股有限公司 Tianchang Holding Group Co., Ltd. ("**Tianchang Holding**") acquired 35% equity interests of 浙江天能新材料有限公司 Zhejiang Tianneng New Material Co., Ltd., a wholly-owned subsidiary of the Group before the acquisition, with a consideration of RMB89,216,000.



## 24. RELATED PARTY TRANSACTIONS (CONTINUED)

Notes:

- (i) Changtong Technology is beneficially owned by Ms. Zhang Mei'e, who is the sister of Mr. Zhang Tianren ("**Mr. Zhang**"), the beneficial owner and the director of the Company, and her spouse, Mr. Ni Danqing.
- (ii) Yuanhong Machinery is beneficially owned by Mr. Zhang Kaihong's son. Mr. Zhang Kaihong is a director of the Company.
- (iii) Xin Xin Packaging is beneficially owned by Ms. Chen Pingping and Ms. She Fangli, who are the cousin and niece respectively of Mr. Zhang.
- (iv) 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.
- (v) Changxing Jin Ling Hotel, Haoyang Property Management and Tianchang Holdings are controlled by Mr. Zhang.

The remuneration of directors and other members of key management during the period was as follows:

	<b>Six months ended 30 June</b>	
	<b>2022</b> <b>RMB'000</b> <b>(unaudited)</b>	2021 RMB'000 (unaudited)
Short term employee benefits	<b>1,531</b>	1,654
Post-employment benefits	<b>11</b>	8
	<b>1,542</b>	1,662

The remuneration of directors and key executives are determined by the remuneration committee and executive directors respectively having regard to the performance of individuals and market trends.

## OTHER INFORMATION

### INTERESTS OF DIRECTORS AND CHIEF EXECUTIVE

As at 30 June 2022, apart from the details as follows, the Directors and chief executive of the Company do not have any other interests and short positions in the shares, underlying shares and 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 Hong Kong Stock Exchange pursuant to the Model Code.

#### Ordinary shares of HK\$0.1 each of the Company

Name	Capacity	Number of 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. The interest in 438,000 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 30 June 2022.

### INTERESTS OF SUBSTANTIAL SHAREHOLDERS

As at 30 June 2022, the register of substantial shareholders maintained by the Company pursuant to Section 336 of the SFO shows that the following shareholders, 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 or debentures 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:

## OTHER INFORMATION

### Ordinary shares of HK\$0.1 each of the Company

Name of Shareholder	Capacity	Number of shares held (Note 1)	Approximate percentage of issued share capital of the Company (Note 4)
Zhang Tianren	Interest of a controlled corporation (Note 2)	410,355,650 (L)	36.44%
	Interest of spouse (Note 2)	438,000 (L)	0.04%
Yang Yaping	Beneficial owner (Note 2)	438,000 (L)	0.04%
	Interest of spouse (Note 2)	410,355,650 (L)	36.44%
Prime Leader Global Limited	Beneficial owner (Note 2)	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. The interest in 438,000 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 30 June 2022.



## SHARE OPTIONS

The Company's share option scheme (the "**Scheme**") was adopted pursuant to a resolution passed by the shareholders on 26 February 2007 for the primary purpose of providing incentives or rewards to selected participants for their contribution to the Group. Details of the Scheme are set out in the Note 20 to the financial statements. An ordinary resolution was passed at the annual general meeting of the Company held on 16 May 2014 (the "**Annual General Meeting**") relating to the refreshment of scheme mandate limit of the Scheme as set out in the supplemental notice of the Annual General Meeting. The Scheme expired on 10 June 2017.

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

Name of grantee	Date of grant of the options	Exercise period	Exercise price of the options (HK\$)	Closing price of Company's shares immediately before the date of grant (HK\$)	Weighted average closing price of Company's shares immediately before the date of exercise (HK\$)	Number of option outstanding as at 1 January 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 or the Scheme during the period	Number of options outstanding as at 30 June 2022	Approximate shareholding percentage of the underlying shares of 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%
Other eligible participants	16/6/2014	16/6/2015 to 15/6/2024	2.90	2.89	-	34,704,000	-	-	-	(450,000)	34,254,000	3.04%
						34,794,000	-	-	-	(450,000)	34,344,000	3.05%

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





## OTHER INFORMATION

### SHARE AWARD SCHEME

Pursuant to the shareholders' resolution approved on 23 May 2019, Tianneng Battery, a subsidiary of the Company, adopted a share award scheme for eligible senior management and eligible employees of Tianneng Battery and its subsidiaries (the "**Selected Employees**"). The shares of Tianneng Battery to be issued to the Selected Employees who are connected persons of the Company amount to 0.19% of the then issued shares of Tianneng Battery immediately after the completion of the subscription by certain management partnerships established for holding the shares for and on behalf of the Selected Employees. Details are set out in Note 20 and the circular of the extraordinary meeting dated 24 June 2019.

### PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

Neither the Company nor any of its subsidiaries purchased, sold or redeemed any of the Company's listed securities during the period under review.

### DISCLOSURE OF CHANGES IN INFORMATION OF DIRECTORS

Pursuant to Rule 13.51B(1) of the Listing Rules, there is no change in Directors' information since the date of publication of the 2021 Annual Report.

By order of the Board  
**Zhang Tianren**  
*Chairman*

Hong Kong, 26 August 2022