Capital Environment Holdings Limited
首創環境控股有限公司

(Incorporated in the Cayman Islands with limited liability)
(於開曼群島註冊成立之有限公司)
Stock Code 股票代號：03989

ANNUAL REPORT 2021 年報

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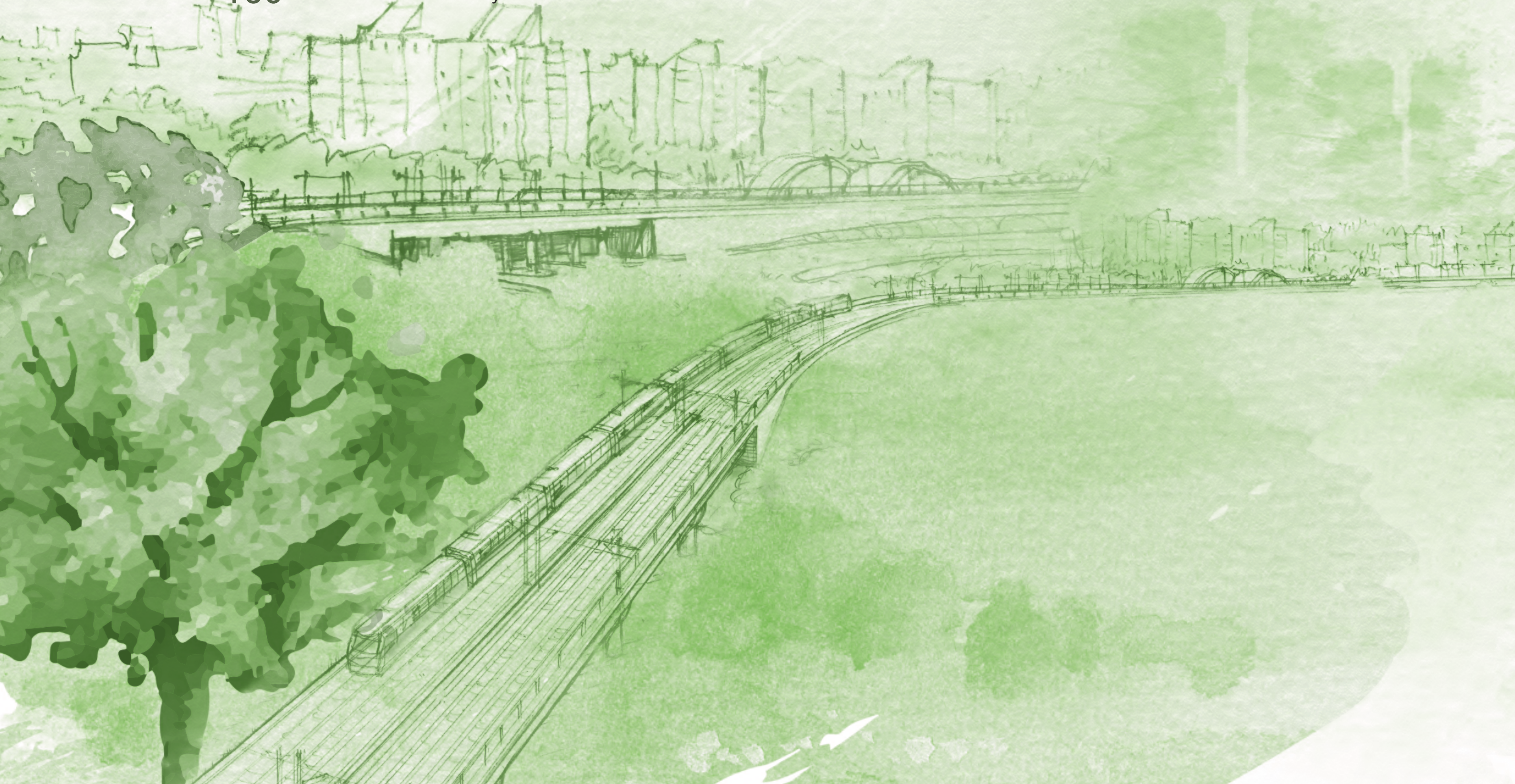

CORPORATE INFORMATION

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BOARD OF DIRECTORS

Executive Directors

Mr. Cao Guoxian *(Chairman)*
Mr. Li Fujing *(Chief Executive Officer)*
Mr. Li Qingsong *(Executive General Manager)*
(appointed on 26 August 2021)
Mr. Xiao Yukun *(resigned on 26 August 2021)*

Non-executive Director

Ms. Hao Chunmei
(redesignated from Executive Director to Non-executive Director on 2 July 2021)

Independent Non-executive Directors

Mr. Pao Ping Wing
Mr. Cheng Kai Tai, Allen
Dr. Chan Yee Wah, Eva

COMMITTEES

Audit Committee

Dr. Chan Yee Wah, Eva *(Chairlady)*
Mr. Pao Ping Wing
Mr. Cheng Kai Tai, Allen

NOMINATION COMMITTEE

Mr. Cao Guoxian *(Chairman)*
Mr. Pao Ping Wing
Mr. Cheng Kai Tai, Allen
Dr. Chan Yee Wah, Eva

Remuneration Committee

Mr. Pao Ping Wing *(Chairman)*
Mr. Cheng Kai Tai, Allen
Mr. Cao Guoxian

COMPANY SECRETARY

Ms. Wong Bing Ni

AUTHORIZED REPRESENTATIVES

Mr. Cao Guoxian
Ms. Wong Bing Ni

REGISTERED OFFICE

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

HEAD OFFICE AND PRINCIPAL PLACE OF BUSINESS

Unit 1613–1618
16th Floor
Bank of America Tower
12 Harcourt Road, Central
Hong Kong

AUDITORS

Ernst & Young
Certified Public Accountants

LEGAL ADVISERS

Harney Westwood & Riegels
Jun He Law Offices

PRINCIPAL BANKERS

Bank of China (Hong Kong) Limited
The Hongkong and Shanghai Banking Corporation Limited

SHARE REGISTRARS AND TRANSFER OFFICES

Principal Registrar in Cayman Islands

Suite 3204, Unit 2A, Block 3
Building D, P.O. Box 1586
Gardenia Court, Camana Bay
Grand Cayman, KY1-1100
Cayman Islands

Branch Registrar in Hong Kong

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

CORPORATE WEBSITE

www.cehl.com.hk

STOCK CODE

03989

CHAIRMAN'S STATEMENT

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Mr. Cao Guoxian
Chairman

The global economy continued to recover in 2021, with major economies around the world gradually getting back on track. However, the complicated and unpredictable developments of the COVID-19 pandemic posed new challenges to the global economy, particularly an insufficient and uneven recovery worldwide amid upward revisions in global economic growth forecasts. Currently, various economies have been experiencing a sharp rise in inflation, with volatile financial markets and rising uncertainties. In the midst of the global economic uncertainty, China has risen to the challenges by pushing a new development paradigm of "dual-circulation", adhering to expanding domestic demand as the strategic foundation and stimulating market vitality through supply-side reforms, aiming at achieving its own high-quality development. China is now at a historical point where its economic transformation cycle and global technological innovation cycle overlap, which brings unprecedented development space for China's environmental industry. The environmental industry will undergo a new round of restructuring and will become a key force driving China's high-quality economic development.

The year of 2021 marks the beginning of China's 14th Five-Year Plan which carries forward a number of green policies released by the Chinese Government in its 13th Five-Year Plan. This signals that new opportunities will arise for China's green industry. Following the solemn pledge made by Chinese President Xi Jinping at the 75th session of the United Nations General Assembly to achieve "carbon peaking by 2030 and carbon neutrality by 2060", China has fully integrated the new theme of "carbon neutrality and carbon peaking" into its economic development. At a conference on the goals of carbon peaking and carbon neutrality, Chinese President Xi Jinping emphasized that China will roll out all-round efforts to "dual carbon". China will stick to the principles of exercising nationwide planning, prioritizing conservation, leveraging the strengths of the government and the market, coordinating efforts on the domestic and international fronts, and guarding against risks; accelerate the formation of industrial structures that help conserve resources and protect the environment; and push forward the "dual carbon" actions from the aspects of "strengthening planning and coordination", "promoting energy revolution", "advancing industrial optimization and upgrading", "accelerating the revolution in green and low-carbon technology", "improving the green and low-carbon policy framework" and "taking an active part in and leading global climate governance", so as to meet the urgent need to achieve sustainable development, keep up with technology trends and promote the transformation and upgrading of economic structure, thereby meeting the people's ever-growing demand for a beautiful environment. In addition, the Chinese Government also introduced a series of favorable policies to accelerate the development and utilization of clean energy, build a new power system with new energy as the mainstay, upgrade energy consumption patterns, promote the reduction of pollution and carbon emissions in key industries, improve green and low-carbon policies and market systems, and accelerate the promotion of carbon emissions trading, supporting the development of a green and environmental-friendly economy in all aspects. The release of the new policies demonstrates the government's determination to attach importance to and regulate the environmental industry, promote the healthy development of the environmental industry, and open a new chapter for the high-quality development of China's environmental industry.

In 2021, Capital Environment Holdings Limited (the "Company"), together with its subsidiaries (collectively, the "Group") and Beijing Capital Eco-Environment Protection Group Co., Ltd. (formerly known as Beijing Capital Co., Ltd.) (stock code on Shanghai Stock Exchange 600008) ("Capital Eco Group"), a substantial shareholder of the Company, developed a new strategic plan for the "14th Five-Year Plan" period and a new strategic iteration of "Eco + 2025". In the new strategy, Capital Eco Group built on its traditional business portfolio of "water supply and solid waste treatment" to branch out into the areas of industrial air emissions treatment and energy sources, formed an organic integration and deep links among its business segments, and created a "5+4+1" multi-business portfolio covering "water, solid waste, air and energy" services and combining asset-light and asset-heavy operations, which generates strong synergistic effects. In addition, Capital Eco Group adheres to the innovation- and technology-driven growth model, focuses on technology leadership, continuously strengthens its core competitiveness, stimulates endogenous power, and further explores the value of urban environmental services. By virtue of its multi-business portfolio, Capital Eco Group is able to meet all user needs, provide ever-better integrated and systematic solutions, and promote business upgrading on a continuous basis.

As a Chinese verse goes, the ox ploughs the green fields and thousands of barns are full; the tiger roars and the green hills are covered by vegetation. The Group has earnestly carried out the "14th Five-Year Plan" period-specific strategic plan and the "Eco+2025" strategic iteration of Capital Eco Group. In adherence to the general keynote of "forging ahead and promoting stability with progress", the Group steadily improved its overall management from various aspects such as cost management, capital management and safety management, boldly optimized its business structure, actively promoted the implementation of the "Four Refinements" strategy and strengthened the two-wheel drive of capital and operation. In the pursuit of "refinement, excellence and stability", the Group has delivered impressive results to the market and investors.

During the year under review, the revenue from the Group's principal operating businesses recorded a new high of over RMB7,903 million, representing an increase of 3.35% as compared to 2020; the Group's total assets amounted to over RMB26,173 million, representing an increase of approximately 8.79% as compared to 2020, and net assets amounted to over RMB7,717 million, representing an increase of approximately 7.34% as compared to 2020. The Group's net profit attributable to parent company was RMB511 million, representing an increase of approximately 9.83% as compared to 2020.

As at the end of the year, in addition to the New Zealand projects in overseas market, the Group had 69 environmental protection projects of various types in China, covering over 20 provinces and cities such as Beijing, Jiangxi and Henan, serving a population of over 60 million and with a total investment of over RMB18,790 million.

During the year under review, the Group faced up to difficulties on the road to sustainable development, sized up the situation and strived for excellence. The Group conducted a view of its business and investment, achieved business focus through the "advancing, devesting, maintaining and piloting" strategy, defined the strategic layout of core competencies, and improved quality and efficiency from six aspects, namely market expansion, business synergy, technology research and development, technological innovation, information technology application, and operation management. The Group stepped up its efforts to expand asset-light business, further expanded its project information bank, fully mobilized project resources, and improved the conversion efficiency of key projects. In addition, the Group accelerated the progress of key tasks such as construction of a technological innovation management system, management of research projects and research and development of major technological projects, formulated an implementation plan for technological innovation, and developed the plans for promoting technological innovation and technological capability, with an aim to consolidate the foundation for high-quality development with technological innovation.

Overcoming hardships will lead to success. The Group continued to rank among the Top Ten Influential Enterprises in the solid waste industry of China by virtue of its outstanding market influence and clear strategic positioning, demonstrating the Group's unshakeable faith in sustainable development and the market's recognition of the Group's mission, vision, values and influence.

I would like to express my sincere gratitude to the management and all employees of the Group for their hard work and remarkable contribution in the past year, and to all shareholders of the Company, members of the board of directors of the Company and people from all walks of life in the Mainland China and Hong Kong for their support to the Group.

We will make relentless efforts to strive for excellence. In the new era where change is the only constant, the Group will stick to "14th Five-Year Plan" period-specific strategic plan and the "Eco+2025" strategic iteration of Capital Eco Group, take integration as an opportunity to promote business and organizational reforms, reconstruct business models, optimize operational mechanisms, enhance the quality of assets through sharpening endogenous capacity, balance asset-light and asset-heavy operations, and move to new levels in terms of waste recycling, waste-to-energy and IT– and AI-based operations. The Group will promote brand upgrading, empower itself with digitalization and technological innovation to better carter for customer needs, and adhere to high-quality development as the key theme to drive the Group to achieve steady improvement in quality and reasonable growth in quantity. In addition, the Group has built four value chain businesses comprising engineering technology, environmental protection equipment, asset management and intelligent environmental protection by virtue of its capital, talent and cultural resources, providing solid business support for Capital Eco Group to materialize its 14th Five-Year Plan period-specific strategy. In pursuit of its corporate vision of being "a trustworthy leader in environmental sustainability" and the strategic values of helping customers succeed, keeping innovating, upholding integrity, and sharing responsibility and benefits, the Group will further cooperate with various parties in the industry to promote ecological prosperity, economic prosperity and social prosperity, and to realize the harmonious coexistence of man and nature.

Chairman
Cao Guoxian

MANAGEMENT DISCUSSION AND ANALYSIS

MANAGEMENT DISCUSSION AND ANALYSIS

Mr. Li Fujing
Chief Executive Officer

In 2021, as the world economy continued to be impacted by the rapid mutations and new changes of COVID-19, most countries suffered a slowdown in economic growth and rising inflation, with sharp declines in trade and cross-border investments and dramatic volatility of commodity prices, which brought more uncertainties to the global economy. In response, major economies around the world have successively adopted a mix of fiscal and monetary policies to ease the predicament, boost economy and enhance the pace of recovery. Against this backdrop, China proactively promoted economic reform and adopted countermeasures. Specifically, China has moved to rely on "internal circulation" (i.e. domestic demand) to maintain growth momentum and expand "external circulation" (i.e. foreign trade) to enhance economic links with outside world so as to form a new development paradigm featuring dual circulation, in which domestic and overseas markets reinforce each other, with the domestic market as the mainstay; and give play to the role of the "Regional Comprehensive Economic Partnership"《區域全面經濟夥伴關係協定》to promote global and regional economic governance and the recovery and growth of world economy, achieving high-quality economic development.

The year of 2021 marks the beginning of the "14th Five-Year Plan" of China. At the Sixth Plenary Session of the 19th Central Committee of the Communist Party of China, the Chinese government proposed to promote green, circular and low-carbon development, comprehensively facilitate the development of green economy and environmental protection industry, and win the battle against pollution by implementing three major action plans to prevent and control air, water and soil pollution, thereby preserving blue skies, clear waters and clean soil. In addition, at an important meeting of the Chinese government on achieving carbon peak and neutrality goals, Mr. Xi Jinping, General Secretary of the CPC Central Committee, emphasised that achieving carbon peak and neutrality is an inherent requirement for implementing the new development philosophy, fostering a new pattern of development and pursuing high-quality development. In future, the Chinese government is set to fully apply the new development philosophy, unswervingly follow the path of high-quality development that prioritizes ecological preservation and boosts green and low-carbon development, increase its efforts to promote comprehensive green transformation in economic and social development, establish a sound green, low-carbon circular economic development system, promote adjustment of industrial structure and energy structure continuously, launch the national carbon trading market, accelerate the development of a policy framework for carbon peaking and neutrality, and enhance its strategic thinking on the four sets of relationships including between development and emissions reduction, between overall and local imperatives, between long-term and short-term goals and between government and market, and deliver its commitment to achieve "carbon peaking" by 2030, "carbon neutrality" by 2060. The strategic plans set out above demonstrate the resolve of the Chinese government to promote ecological progress with unprecedented efforts, and set the keynote for the transition towards a green economy. As such, it is expected that the ecological and green development industry will see historical, transformative and across-the-board positive changes in the future.

In the midst of China's booming green economy and burgeoning environmental protection industry, the Group has actively aligned itself with national strategies to grasp market opportunities, and fully implemented the "14th Five-Year Plan" period-specific strategy and the overall deployment of "Eco+2025" strategic iteration of Beijing Capital Eco-Environment Protection Group Co., Ltd. (formerly known as "Beijing Capital Co., Ltd") ("Capital Eco Group"), a substantial shareholder of the Company. In particular, the Company has put into practice the development philosophy that highlights core concept, basic strategy and key organizational capability, pursued the strategic initiatives on synergistic integration, transformation and upgrading, and deepening urban presence and embracing multiple values and, with a focus on capacity building and technological innovation, created a diversified value driver of "investment + capability + service" to develop both asset-light and asset-heavy operations, supporting Capital Eco Group to achieve a multi-business portfolio covering "water, solid waste, air and energy" environmental services. In addition, the Group has been exploring further possibilities of waste recycling, waste-to-energy and AI-based operations for its business so as to extend its business value chain, fully exploit its management advantages as a company group, and promote the rapid improvement of operating efficiency, ultimately achieving the strategic goals of helping clients succeed, innovating services, operating with integrity and sharing responsibilities and benefits.

As the Chinese saying goes, no excellence can be acquired without constant practice. During the year, the Group maintained sound growth momentum in its operations through capacity building and efficiency improvement. The Group's total assets amounted to RMB26,173 million representing a year-on-year increase of 8.79%; turnover amounted to RMB7,903 million, representing a year-on-year increase of 3.35%; profit for the year amounted to RMB573 million, representing a year-on-year increase of 15.57%; and net profit attributable to the parent company amounted to RMB511 million, representing a year-on-year increase of 9.83%.

In terms of domestic market, as at 31 December 2021, the Group had secured a total of 69 asset-heavy projects (including 26 waste-to-energy projects, 7 waste landfill projects, 6 anaerobic digestion treatment projects, 17 waste collection and transportation projects, 9 hazardous waste treatment projects, 2 waste electrical appliances dismantling projects and 2 biomass electricity generation projects) with a total investment of approximately RMB18,790 million, of which RMB15,308 million had been injected as at 31 December 2021. The facilities are designed with an aggregate annual household waste treatment capacity of approximately 14.37 million tons and annual electrical and electronic equipment dismantling volume of approximately 3.20 million units. The said projects have gradually entered the construction and operation period. As at 31 December 2021, there were 64 domestic projects either under construction or in operation. In terms of the asset-light business, the Group secured a total of 13 projects in the PRC as at 31 December 2021, including 7 environmental sanitation projects and 6 site restoration projects.

In terms of overseas market, the Group held 51% equity interests in BCG NZ Investment Holding Limited ("BCG NZ Group"). BCG NZ Group provides comprehensive waste management services in New Zealand, including waste collection, recycling and disposal of hazardous and industrial waste, and serves more than 300,000 customers in major cities of New Zealand, such as Auckland, Wellington and Christchurch, with a market share of nearly 40%, maintaining its leading position in New Zealand.

Successful market expansion:

The Group has developed a mix of asset-light and asset-heavy operations. In respect of the asset-heavy business, the Group fully explored the demand for collaboration in waste treatment services, actively promoted the investment strategy of regional collaboration and industry collaboration, and ensured the implementation of waste incineration power generation projects. The Group secured two new projects, namely the PPP project in relation to comprehensive harmless treatment and recycling of solid waste in Zhumadian City, Henan Province and the waste incineration power generation project in Yingde City, Guangdong Province. In respect of the asset-light business, the Group has been actively developing its environmental sanitation business and site restoration business by optimizing its investment standards, riding on market opportunities and ensuring the implementation of key projects. The environmental sanitation business signed 7 new projects were signed with an annual contracted service fees of approximately RMB127 million in aggregate; and the site restoration business signed 6 new project with an aggregate contract sum of approximately RMB110 million. In addition, the Group continued to improve its standardized investment management system and strengthen its business expansion capabilities. Specifically, the Group (i) straightened up and improved its rules and regulations to standardize its investment management; (ii) launched the investment execution information system to effectuate online management of project investment; (iii) optimized its investment estimation model and developed an online self-service estimation system; (iv) promoted investment expansion and review standardization to improve business capabilities; (v) organized training for investment personnel to improve the skills and capabilities of the investment team; (vi) established a project review mechanism to provide guidance on investment management; and (vii) established a post-investment supervision system to consolidate life-cycle management.

Increasing standardisation of construction management:
The Group enhanced the standardization of construction management and accelerated the integration of construction management resources, laying a foundation for sustainable development. During the year, the Group had a total of 17 construction projects, of which 10 projects were completed and put into trial operation and 5 projects were completed and delivered. In addition, the Group has applied for national subsidies for a number of projects, including Nanyang, Xinxiang, Zhengyang, Qianjiang, Suichuan, Shenzhou, Yutian and Yongji projects. Meanwhile, the Group has taken a series of measures to reduce costs and increase efficiency: in respect of construction costs, the Group has prepared and implemented the "Guidelines for Settlement Management of Construction Projects upon Completion"《建設工程竣工結算管理導則》and the "Guidelines for Budget Management of Construction Drawings of Construction Projects"《建設工程施工圖預算管理導則》, and finished the completion procedures and settlement of 21 projects and 38 contracted bid sections; in respect of centralized procurement, the Group has established a procurement management department to develop a procurement management system, implement the centralized procurement program, and co-ordinate various purchasing activities. During the year, the Group implemented the centralized procurement of cables, air compressors and fly ash solidification (using chelating agents) services.

Optimization and enhancement of operation management:
The Group has established a coordination mechanism at the project level to drive profit growth and enhance operating efficiency of its projects. During the year, incineration projects including Ruijin, Zhengyang and Xinxiang projects, and Lushan biomass project officially commenced commercial operation upon being approved. The volume of waste treated at our existing projects further increased, with an additional 1,040 tons per day of waste contracted during the year. The on-grid power generation of our waste-to-energy projects increased by 12% year on year. In respect of subsidy collection and adjustment, subsidy adjustments for Hangzhou kitchen waste treatment project and Lushan waste collection and transportation project were completed. In respect of technical reform, the Group issued the "Management Measures for the Implementation of Technical Reform"《技改工作實施管理辦法》to set out the process of implementing a technical reform, approved or filed 53 applications for technical reforms of projects, and completed the technical reform and optimization of the incineration boiler in Nanchang project during the year.

Solid foundation for technological innovation:
The Group comprehensively promoted the key tasks such as construction of the technological innovation management system, management of research projects as well as research and development of major technological projects. In terms of system construction, the preparation of "Implementation Plan for Technological Innovation of Capital Environment Holdings Limited"《首創環境控股有限公司科技創新實施方案》has been completed, marking the further improvement of the Group's technological innovation initiatives, and putting the scientific exploration on its trajectory. In terms of major technology research and development projects, the project of "Research, Development and Demonstration of Key Technologies for Emission Reduction and Cost Reduction in Solid Waste Incineration"《生活垃圾焚燒減排與降本關鍵技術研發與示範》progressed smoothly, with an survey and analysis report on the impact of waste separation on the incineration projects being completed. For the "Technology Research on Ultra-low Emission of NOx Flue Gas Based on Temperature Measurement by Acoustic Wave（基於聲波測溫的煙氣NOx超低排放技術研究）", installation tests had been conducted on the incinerators in Lushan project and Qixian project. For the "Study on the Development and Application of HDH Process for Waste Leachate Concentrate（垃圾滲濾液濃縮液HDH工藝開發應用研究）", the pilot scheme design and main equipment procurement had been completed. At the same time, the Group deeply explored synergistic demands of project, and promoted vertical synergies, horizontal linkages and mutual complementation of regional projects, aiming at synergistic extension and expansion of the industrial chain. Research was conducted on process routes, interface conditions for technology synergy as well as investment and operation costs.

The Group adheres to the path of steering market by virtue of technology and expanding market presence leveraging on technology. Beijing Capital Environment Technology Co., Ltd.（北京首創環境科技有限公司）(hereinafter referred to as "Beijing Capital Technology"), a subsidiary of the Group, was recognized as "National High-tech Enterprise（國家高新技術企業）" and a small and medium-sized enterprise with" Specialty, Excellency, Uniqueness and Innovation（專精特新）" in Beijing. It was also included in the "2020-2022 Pilot Units for Intelligent Property Rights in Beijing(2020-2022年度北京市知識產權試點單位）", "Innovative and Entrepreneurial Enterprises at Infant Stage（創新創業型苗圃企業）" in Shunyi District, Beijing, and "Leaders in Site Restoration Segment（場地修復細分領域領跑企業）" in 2021, etc. Beijing Capital Technology had over 60 patents, participated in the preparation of 2 group standards, and compiled 3 enterprise standards which have been filed with relevant authorities. The PPP project on Huainan old landfill was included in the projects under the Science and Technology Plan of the Department of Housing and Urban-Rural Development of Anhui Province. High-efficiency screening technology and complete sets of equipment for perishable wastes were included in the "Catalogue of Major Environmental Protection Technology and Equipment Encouraged for Development by the State (2020 Edition)(《國家鼓勵發展的重大環保技術裝備目錄(2020版）》). The "Fast (Aerobic) Stabilization Treatment Solution for Domestic Waste Landfill（生活垃圾填埋場快速（好氧）穩定化處理解決方案）" passed the new technology and new product accreditations of Beijing.

Diversified financing methods:

The Group realized the refinement and automation of capital management through information technology to enhance the efficiency of capital management and maximize the effectiveness of capital use. In addition, the Group coordinated the capital needs and financing progress, reduced capital cost, and integrated internal financial resources within the Group, thus achieving the operation goal of "three reductions, one decrease and one enhancement（三降一減一提升）".

The Group actively explored various financing options that are beneficial to the shareholders of the Company, comprehensively considered the short-, medium- and long-term capital needs, and utilized various financing methods to provide sufficient funds for future investments. During the year, the Group continued to expand its equity financing by increasing its authorised share capital to HK$5,000 million (comprising HK$3,368 million of ordinary shares and HK$1,632 million of preference shares). Meanwhile, the Group continued to approach various banks and investment institutions, and repaid the principal of and interest on the bonds in the amount of US$300 million during the year. In addition, the Group completed the refinancing of HK$700 million for various large financing facilities that were about to mature during the year. During the year, the Group secured RMB6,254 million of banking facilities in total, of which RMB2,730 million was granted to the Group's headquarters and RMB3,524 million was granted to various project companies.

Environmental, Social and Governance Performance:

The Group's environmental policies and performance:

The Group attaches great importance to the environmental impact brought by the operation process and has formulated the "Environmental Management Measures"《環境管理辦法》to regulate the environmental protection matters of all departments and project companies, requiring them to operate in a frugal and clean manner and pursue for harmonious development. At the same time, the Group puts into practice the concept of energy conservation and emission reduction in the aspects such as waste discharge, use of resources, and management of environment and natural resources, so as to prevent and reduce adverse impact on the environment, and comply with national environmental protection laws and regulations. The Group is also committed to improving its environmental performance and reducing the adverse impact on the environment through research and development of different environmental protection technologies.

The Group has established a production safety committee to coordinate and take charge of environmental management. The duties of the production safety committee include: (1) to implement the environmental policies, decrees, regulations, standards, instructions and provisions of the State, local governments and the Group; (2) to analyze and study the matters relating to environmental management, and propose rectification requirements for major issues and hidden dangers in environment; (3) to develop long-term strategies for energy conservation, environmental protection and cleanliness, regularly review and update the environmental management system, and monitor and inspect the implementation thereof; and (4) to be responsible for the investigation, analysis and handling of major environmental accidents as well as development of preventive measures. In addition to the production safety committee, the members of the Group have also established corresponding environmental steering groups, which are specifically responsible for environmental management and inspection, and executing the instructions of the production safety committee.

During the year under review, the environmental performance of the Group's principal businesses is summarized as follows:

	Total
Domestic waste disposal	5.9225 million tonnes
Hazardous waste disposal	12,000 tonnes
On-grid electricity provided	1.151 billion kWh

Compliance with the relevant laws and regulations that have a significant impact on the Group

The Group operate its projects in strict compliance with the relevant laws and regulations. The major regulations applicable to the Group's projects include the Environmental Protection Law of the People's Republic of China《中華人民共和國環境保護法》, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste《中華人民共和國固體廢物污染環境防治法》, the Regulations on Administration of Recovery and Disposal of Waste Electrical and Electronic Products"《廢棄電器電子產品回收處理管理條例》, the Labour Law of the People's Republic of China《中華人民共和國勞動法》, the Labour Contract Law of the People's Republic of China《中華人民共和國勞動合同法》, the Production Safety Law of the People's Republic of China《中華人民共和國安全生產法》, the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases《中華人民共和國職業病防治法》, the Regulation on Work-Related Injury Insurances of the People's Republic of China《中華人民共和國工傷保險條例》, the Law of the People's Republic of China on the Protection of Minors《中華人民共和國未成年人保護法》, the Tentative Provisions on Payment of Wages《工資支付暫行規定》, the Company Law of the People's Republic of China《中華人民共和國公司法》, the Standard for Pollution Control on Municipal Solid Waste Incineration《生活垃圾焚燒污染控制標準》, Anti-Unfair Competition Law of the People's Republic of China《中華人民共和國反不正當競爭法》, Anti-Money Laundering Law of the People's Republic of China《中華人民共和國反洗錢法》, the Bidding Law of the People's Republic of China《中華人民共和國招標投標法》. In 2021, the Group did not record any material losses and impacts arising from non-compliance with the above regulations.

The Group's key relationships with its employees, customers and suppliers

Employees

The Group highly values the contribution and dedication of its employees and understands that sound operation efficiency relies on the joint efforts of all employees. The Group pursues development with capital, talents and culture as its driving forces, and strives to create a healthy and pleasant working environment for employees, allowing the employees to work efficiently. Meanwhile, the Group continuously explores the human resources management model, establishes a competitive remuneration mechanism, and provides employees with attractive remuneration packages. In addition, the Group continues to invest in the career development of its employees and forge a talent management ladder to build a diverse, inclusive and industry-leading team.

Customers
It is the Group's top priority to provide customers with high-quality, efficient and safe services. In adherence to the customer-oriented business philosophy, the Group takes customer satisfaction as the primary principle, continuously improves its services and caters for customer needs, aiming to build a sustainable ecosystem in which customers and partners cooperate closely for long-term value. The Group has developed the "Measures on Management and Operation of Projects"《項目運營管理辦法》and a series of policies on product liability to regulate the management and operation process.

Suppliers
The Group is committed to establishing long-term and mutually beneficial cooperation relationships with its suppliers and jointly building a sustainable supply chain to enhance the Group's sustainability performance. The Group has established systems such as the "Tender Management Measures"《招標管理辦法》and the "Procurement Management Measures"《採購管理辦法》to provide guidelines for the selection of suppliers that meet the Group's requirements, and to reduce and manage environmental and social risks in the supply chain.

Business outlook

Looking forward, the Group will fully implement the "14th Five-Year Plan" period-specific strategy and the deployment of "Eco+2025" strategic iteration of Beijing Capital Eco Group. In adherence to the general keynote of "forging ahead and promoting stability with progress", the Group will carry through the working concepts of "seeking development through integration and inspiring advancement through development", actively accelerate the construction of technology, operation and management capabilities, and promote business development, transformation and upgrading, thereby ensuring the steady growth of revenue and profit and the continuous improvement of development quality. As for the waste incineration business segment, the Group will strive to improve its operating results through technological innovation, technological renovation and continuous lean production and operation. As for the site restoration business segment, it will leverage on the opportunities for business development to expand market share. As for the environmental sanitation business segment, the Group will further refine the operation and management of projects, focus on high-quality major projects, promote the building of city-oriented companies, and plan for the systematic development of future business in the region where it operates, aiming to become an urban environmental protection service enterprise that "serves a city". In addition, with technological innovation as the guide and core competence building as the main line, the Group will continue to optimize its asset structure, carry out in-depth refinement management, make an all-out effort and forge ahead with determination, cementing a solid foundation for high-quality development. Following the corporate vision of "a trustworthy leader in environmental sustainability", the Group will devote its efforts in promoting ecological prosperity, economic prosperity and social prosperity, so as realize the harmonious coexistence of human and nature.

FINANCIAL REVIEW

Overview

During the year under review, the Group's revenue from its waste treatment and waste-to-energy business was RMB7,902,604,000. Profit attributable to owners of the Group in 2021 was RMB510,746,000, representing an increase of approximately 9.83% as compared to RMB465,041,000 in 2020. The increase in profit was mainly due to the continuous investment in construction and operation of domestic projects, which drove the growth of construction and operating profits respectively.

The finance costs of the Group saw an increase of approximately 4.65% to approximately RMB580,502,000 as compared to that of 2020, which was mainly due to the issuance of RMB1 billion corporate bonds by the Company in 2020.

Financial Position

As at 31 December 2021, the Group had total assets of approximately RMB26,173,239,000, and net assets attributable to owners of the Company were approximately RMB6,210,896,000. As at 31 December 2021, the gearing ratio (which is calculated on the basis of total liabilities over total assets) was 70.52%, a slight increase of 0.4% from 70.12% as at the end of 2020. The current ratio (which is calculated on the basis of current assets over current liabilities) increased from approximately 0.71 as at 31 December 2020 to approximately 0.87 as at 31 December 2021. The increase was mainly due to the US$300 million bonds were replaced by a three-year syndicated US dollar loan in September 2021.

Financial Resources

The Group finances its operations primarily with internally generated cash flow, equity financing, debt financing and loan facilities from banks. As at 31 December 2021, the Group had cash and bank balances and pledged bank deposits of approximately RMB1,720,491,000, representing a decrease of approximately RMB1,096,753,000 as compared to approximately RMB2,817,244,000 at the end of 2020. The decrease was mainly attributable to infrastructure payments under service concession arrangements, investments in new projects and day-to-day operating expenses during the year under review. Having considered the Company's operating and investment plans, the Company is of the view that its current financial resources are sufficient to meet its operating and investment needs. Currently, most of the Group's cash is denominated in US$, HK$, RMB and NZ$.

Borrowings

As at 31 December 2021, the Group had outstanding borrowings of approximately RMB11,730,624,000, representing an increase of approximately RMB3,013,478,000 as compared to approximately RMB8,717,146,000 at the end of 2020. The borrowings comprised secured loans of approximately RMB7,775,457,000 and unsecured loans of approximately RMB3,955,167,000. The borrowings are denominated in HK$, RMB, US$ and NZ$. Approximately 27.6% and 72.4% of the borrowings bear interest at fixed rate and variable rate, respectively.

Foreign Exchange Exposure

The majority of the Group's sales, purchases and operating expenses were denominated in US$, HK$, RMB and NZ$. Although the Group has been and will continue to be exposed to foreign currency exchange risks, the Board does not expect future currency fluctuations to materially impact the Group's operations. The management will continue to monitor the foreign exchange exposure flexibly and engage in timely and appropriate hedging activities when needed.

Pledge of Assets

As at 31 December 2021, certain banking facilities of the Group were secured by, inter alia, certain proceeds under the Group's service concession arrangements, bank balances of RMB3,026,000 and leasehold land and buildings of RMB55,121,000.

Pledged bank deposits RMB34,720,000 for service concession arrangements were required by the local governments for securing the progress of certain BOT projects.

Commitment Arrangements

As at 31 December 2021, the Group had commitments of approximately RMB1,070,619,000 and RMB153,546,000 in respect of the construction work under service concession arrangements and acquisition of property, plant and equipment respectively, which were contracted but not provided for in the consolidated financial statements.

Contingent Liabilities

As at 31 December 2021, the Group provided guarantees of approximately RMB341,888,000 to the government authorities of New Zealand in respect of the continuous operation or the fulfillment of required operating standards of the landfill sites and performance guarantees of approximately RMB204,605,000 to the government authorities of the PRC in respect of the construction progress and continuous operation of the projects in the PRC.

Employee Information

As at 31 December 2021, the Group had about 5,175 employees in total, stationed mainly in Mainland China, Hong Kong and New Zealand. The Group's remuneration policies, which are reviewed periodically, are linked to the performance of individual employees and are based on the salary trends prevailing in the aforesaid regions.

BOARD OF DIRECTORS AND SENIOR MANAGEMENT

EXECUTIVE DIRECTORS

Mr. Cao Guoxian, aged 58, holding a master's degree, was appointed as an executive director of the Company ("Director") and chief executive officer of the Company ("Chief Executive Officer") in July 2011, and was redesignated as executive Director and the Chairman of the board of directors of the Company ("Board") in November 2019. Mr. Cao is a vice chairman of the board of directors of Beijing Capital Eco-Environment Protection Group Co., Ltd. (formerly known as Beijing Capital Co., Ltd.) (stock code on Shanghai Stock Exchange: 600008) ("Capital Eco Group"). Previously, Mr. Cao served in the foreign language department of Henan Normal University and Bureau of International Cooperation under the Chinese Academy of Sciences; and worked as manager of oversea business department of Beijing Jingfang Economic Development Corporation（北京京放經濟發展公司）, special assistant to the chairmen of Beijing Capital Land Ltd.（首創置業股份有限公司）, deputy officer of the office of Beijing Capital Group Co., Ltd.（北京首都創業集團有限公司）and deputy general manager of Capital Eco Group.

Mr. Cao has been engaged in investment and financing business at home and abroad for many years. With rich experience in investment management and broad international vision, he has a deep understanding of and operational experience in international investment and financing and capital markets.

Mr. Li Fujing, aged 41, holding a master's degree, is a senior economist and engineer. He was appointed as an executive Director and the Chief Executive Officer in November 2019. Mr. Li is a director and general manager of Capital Eco Group. Before joining the Company, he worked as assistant to the general manager of the infrastructure department and deputy general manager of the environmental industry department at Beijing Capital Group Co., Ltd.. He has rich experience in enterprise management and operation, investment, financing and risk management and other enterprise management work, as well as work experience at overseas enterprises. He worked as an engineer at Baicheng Engineering Technology (Beijing) Co., Ltd.（柏誠工程技術（北京）有限公司）, and as project manager at the infrastructure consulting department of Beijing Municipal Engineering Consulting Corporation（北京市工程諮詢公司）. He joined Beijing Capital Group Co., Ltd. in May 2013 and successively acted as the assistant to general manager of the infrastructure department, the deputy general manager of the environmental industry department and a director of its certain domestic and foreign subsidiaries.

Mr. Li Qingsong, aged 50, is a senior engineer and economist. He holds a bachelor's degree in port and waterway engineering from the Department of Geography of Zhejiang University, a master's degree in hydraulics and river dynamics from the Department of Water Conservancy of Tsinghua University and a master's degree in business administration from the School of Business Administration of the Chinese University of Hong Kong. He was appointed as an executive Director and executive general manager of the Company in August 2021. Mr. Li is currently the general manager of Hunan Capital Investment Co., Ltd.（湖南首創投資有限責任公司）, and assistant to general manager of Capital Eco Group. Prior to that, Mr. Li was an engineer at the Institute of Environmental and Sanitary Engineering Technology（環衛工程技術研究所）of the Urban Construction Design and Research Institute（城市建設研究院）of the Ministry of Construction, the investment manager of the investment and development department, the deputy general manager of Nanjing branch, the general manager of Nanjing branch and the general manager of the investment and development department of southern region of Capital Eco Group. He has extensive experience in investment and financing management.

NON-EXECUTIVE DIRECTOR

Ms. Hao Chunmei, aged 51, is a senior accountant, certified public accountant and certified public valuer, was appointed as an executive Director in April 2018, and subsequently redesignated as non-executive Director in July 2021. Ms. Hao obtained a master's degree in accounting from the Central University of Finance and Economics and a bachelor's degree in mechanical manufacturing from Beihang University. Ms. Hao is currently the chief accountant of Capital Eco Group, and a director of Beijing Capital (Hong Kong) Limited. Ms. Hao served as a department head of planning and finance department, the general manager of Accounting Information Department, the general manager of the planning and finance department and general manager of the corporate development centre of Capital Eco Group. Ms. Hao has extensive experience in finance, corporate management, acquisition and merger, and corporate financing.

INDEPENDENT NON-EXECUTIVE DIRECTORS

Mr. Pao Ping Wing, JP, aged 74, was appointed as an independent non-executive Director in June 2006. He had been actively serving on the consultation and formulation of government policies, including those relating to town planning, urban renewal, public housing and environment matters, etc for years. Mr. Pao has been appointed as a Justice of the Peace of Hong Kong since 1987. He was an ex-Urban Councilor. He obtained a Master of Science in Human Settlements Planning and Development from the Asian Institute of Technology in Thailand in 1980. He was elected as one of the Ten Outstanding Young Persons of Hong Kong in 1982 and one of the Ten Outstanding Young Persons of the World in 1983. Since 1987, Mr. Pao has been an independent non-executive director of companies listed on the Stock Exchange of Hong Kong Limited ("Stock Exchange"), and has extensive experience in the field of corporate governance. Currently, he is an independent non-executive director of a number of companies listed on the Stock Exchange, including Oriental Enterprise Holdings Limited (formerly known as Oriental Press Group Limited), Sing Lee Software (Group) Limited, Zhuzhou CRRC Times Electric Co. Ltd, Soundwill Holdings Limited and Maoye International Holdings Limited.

Mr. Cheng Kai Tai, Allen, aged 58, was appointed as an independent non-executive Director in January 2010. Mr. Cheng is a qualified accountant, a fellow member of Hong Kong Institute of Certified Public Accountants and a member of the Institute of Chartered Accountants in England and Wales. He has practiced as a Certified Public Accountant in Hong Kong for over 20 years and has extensive professional experience in auditing, taxation, financial management, corporate recovery and restructuring. Mr. Cheng holds a master degree of accountancy from Jinan University in China and is a professional advisor to several international companies of investment management, trading and service industry.

Dr. Chan Yee Wah, Eva, age 56, was appointed as an independent non-executive Director in July 2012. Dr. Chan has more than 25 years of financial and management experience and has been senior executives of various listed companies in Hong Kong. Dr. Chan is the founding chairlady of Hong Kong Investor Relations Association; Dr. Chan is also a fellow member of Hong Kong Institute of Certified Public Accountants, a fellow member of the Association of Chartered Certified Accountants and a fellow member of The Hong Kong Chartered Governance Institute (formerly known as The Hong Kong Institute of Chartered Secretaries). Dr. Chan graduated from City University of Hong Kong with a bachelor of arts in accounting. She then earned her MBA degree from the University of Nottingham. She also obtained a DBA degree from the Polytechnic University of Hong Kong. She is currently the Head of Investor Relations of C C Land Holdings Limited and an independent non-executive director of Xtep International Holdings Limited (a company listed on the Stock Exchange).

SENIOR MANAGEMENT

Mr. Gu Jinshan, a Ph.D. holder, senior engineer, was appointed as the Deputy General Manager of the Company in February 2015, mainly responsible for corporate management of the Company. Mr. Gu obtained a doctorate degree in radio waves engineering from Southeast University, a master degree in engineering from College of Optoelectronic Science Engineering of Nanjing University of Science and Technology and a bachelor degree in electronic engineering from Changchun University of Science and Technology (formerly known as Changchun Institute of Optics and Fine Mechanics). Mr. Gu was the laser engineer of Nanjing Institute of Communication of Ningbo Bird Co., Ltd.（寧波波導通信股份有限公司南京通信研究所）, the operation director of the Technology & Network Construction Department of China United Network Communications Limited（中國聯合網絡通信有限公司）, the committee member of Party Committee and Deputy General Manager of China United Network Communications Limited Tangshan Branch（中國聯合網絡通信有限公司唐山市分公司）, the Party Committee member of People's Government and assistant to mayor of Meishan city of Sichuan.

Mr. Zeng Zhaowu, was appointed as the Deputy General Manager and Chief Financial Officer of the Company in December 2020 and then was redesignated as the Chief Accountant (Chief Financial Officer) of the Company in August 2021. He holds a master's degree and is pursuing a doctorate degree from the Party School of the Central Committee of the Communist Party of China (National School of Administration). He is an international certified public accountant, an international internal auditor and an international certified management accountant. Mr. Zeng has extensive experience in financial management, capital operation, investment and financing, and mergers and acquisitions. He had worked for some of the world's leading Fortune 500 Companies such as Flextronics（偉創力）and Doosan（斗山）. He joined the Company in 2011 and has successively served as the head of the finance department, assistant to general manager of the finance department, deputy general manager of the finance department, general manager of the finance department and chief financial officer of the Company, as well as a director of Beijing Capital New Zealand Environmental Management Ltd.（首創新西蘭環境治理有限公司）, a subsidiary of the Company.

Mr. Liu Yanjun, was appointed as the Deputy General Manager of the Company in June 2011, and then was redesignated as the Secretary of the Board in December 2020. He is responsible for corporate strategy, capital market and management of the Board of the Company. Mr. Liu obtained a bachelor degree in environmental science from the Northeast Normal University and a master degree in business administration from the University of Technology of Sydney, Australia. He was previously a chief of office in project management in Harbin Drainage Management, a senior investment manager in PCCW (Beijing) Limited（香港電訊盈科北京有限公司）, a deputy general manager of the Strategy Department and a General Manager of the International Cooperation Department in Capital Eco Group and a deputy general manager in Beijing Capital (Hong Kong) Limited.

Mr. Liu has over ten years of experience in both areas of environmental protection and capital market. He understands and is familiar with the industry development and the market practices. He participated in and was in charge of the investment in as well as the acquisition and restructuring of a number of environmental protection projects. He possesses extensive solid experience in the formulation of the development strategies for investment companies and the operation of capital market.

Mr. Yan Shengli, was appointed as the Assistant President of the Company in June 2011 and as the Vice President in 2013, and then was redesignated as the General Counsel of the Company in December 2020. He is responsible for and in charge of the legal affairs of the Company. Mr. Yan obtained a master degree in economic legal studies from Huazhong University of Science & Technology and a bachelor degree in mathematics from Henan Normal University. He is a PRC practicing lawyer, an economist and an arbitrator. He is well-versed in PRC law and has expertise knowledge of economic aspect, legal application and practicing compliance. He has practiced as practicing lawyer for 20 years and as an arbitrator for ten years. He was previously the legal counsel of several sizable enterprises and government authorities in the PRC. He has been familiar with the operation practice, regulations and management style of the government and enterprises. Mr. Yan was previously the secretary of Judiciary Department in Factory 9623 of Ordnance Industry（兵器工業第9623廠司法處）; a senior partner of Henan Ziwu Solicitors & Co.,（河南子午律師事務所）, a general manager of Henan Hongda Properties Company（河南鴻達房地產公司總）; and a partner of Beijing Rongshi Solicitors & Co.（北京融世律師事務所）and Beijing Chang'an Solicitors & Co.（北京長安律師事務所）.

Ms. Wong Bing Ni, was appointed as Company Secretary and Authorized Representative of the Company in June 2010 and is responsible for managing the listing matters and corporate secretarial affairs of the Company. Ms. Wong is a fellow member of the Hong Kong Institute of Certified Public Accountants, the Association of Chartered Certified Accountants and The Hong Kong Chartered Governance Institute (formerly known as The Hong Kong Institute of Chartered Secretaries) and an associate member of the Institute of Chartered Secretaries and Administrators. She holds a master degree in professional accounting and has over twenty years of experience in corporate secretarial affairs, internal control and financial management of listed companies in Hong Kong.

CORPORATE GOVERNANCE REPORT

The Board of the Company ("Board") believes that high standards of corporate governance are essential to the success of the Company and is committed to maintain a high level of corporate governance standards and practices.

The Company has complied with all the code provisions set out in the Corporate Governance Code (the "Code") contained in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the "Listing Rules") for the year ended 31 December 2021.

DIRECTORS' SECURITIES TRANSACTIONS

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") as set out in Appendix 10 to the Listing Rules as its code for dealing in securities of the Company by the directors of the Company ("Director"). The Model Code is also applicable to the senior management of the Company ("Senior Management"). After a specific enquiry conducted by the Company, all Directors confirmed that they have fully complied with the required standards set out in the Model Code throughout the year under review.

BOARD OF DIRECTORS

The Board is primarily responsible for establishing the strategic direction of the Group, setting objective and business development plan for the Group, monitoring the performance of the Senior Management and assuming responsibility for corporate governance. The Board is also responsible for the preparation and presentation of annual and interim results, risk management, major acquisition(s), and other significant operational and financial matters. Both the Board and the Senior Management have clearly defined roles and powers towards internal control, policies and day-to-day operations of the Group's business. The Senior Management, under the leadership of the Board, are authorized to implement the Group's strategies and business objectives.

With a view to achieving a sustainable and balanced development, the Company considers the increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and sustainable development. The Board diversity has been considered in terms of a number of aspects, including but not limited to gender, age, cultural and educational background, professional experience, skills and knowledge. All Board appointments will be based on meritocracy, and candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board.

As at 31 December 2021, the Board comprises three executive Directors, one non-executive Director and three independent non-executive Directors:

Executive Directors

Mr. Cao Guoxian *(Chairman)*
Mr. Li Fujing *(Chief Executive Officer)*
Mr. Li Qingsong *(Executive General Manager, appointed on 26 August 2021)*

Non-executive Director

Ms. Hao Chunmei *(redesignated from Executive Director to Non-executive Director on 2 July 2021)*

Independent Non-executive Directors

Mr. Pao Ping Wing
Mr. Cheng Kai Tai, Allen
Ms. Chan Yee Wah, Eva

The biographical details of all Directors are set out in the section headed "Board of Directors and Senior Management" of this annual report. Save as disclosed otherwise, none of the Directors has any relationship including financial, business, family or other material relationship with each other.

Every Director has committed sufficient time and effort to deal with the Company's affairs. Every Director is required to disclose the number and nature of offices held in public companies or organizations and other significant commitments to the Company on an annual basis.

To comply with Rule 3.10 of the Listing Rules, the Company has appointed three independent non-executive Directors whom the Company considers having the appropriate and sufficient industry or finance experience and qualifications to carry out their duties. Pursuant to the requirements of Rule 3.13 of the Listing Rules, the Company has received annual confirmation of independence from the three independent non-executive Directors. They were free from any business relationship or other circumstances that could materially interfere with the exercise of their independent or objective judgments. The Company is of the view that all the independent non-executive Directors are independent. Also, the three independent non-executive Directors, representing over one-third of the Board, constituted a proper balance of power maintaining full and effective control of both the Group and its executive management. The independent non-executive Directors, Mr. Pao Ping Wing, Mr. Cheng Kai Tai, Allen and Dr. Chan Yee Wah, Eva, have served as independent non-executive Directors in the Company for more than 9 years.

The Board is circulated with relevant information by the Senior Management pertaining to matters to be brought before the Board for decision as well as reports relating to operational, business and financial performance of the Group before each Board meeting. At least 14 days' notice is given to all Directors before each regular Board meeting and a reasonable notice will also be given for convening other Board meetings, to give them the opportunity to prepare for their attendance of such meetings and to provide them with the opportunity to include additional matters in the meeting's agenda. Board papers for each regular meeting are dispatched to the Directors at least 3 days before the meeting to ensure they have ample time to review the papers and be adequately prepared for the meeting. Senior Management, responsible for the preparation of the Board papers, are invited from time to time to present their papers and to take any questions or address any queries that the members of the Board may have on the papers in the meetings.

The proceedings of the Board at its meeting are conducted by the Chairman of the Company or the person acting the role as the chairman of the meetings who ensures that sufficient time is allocated for discussion and consideration of each agenda item and also equal chances are being given to each Director to express their views and share their concerns.

In considering any matters or transactions at any Board meeting, the Directors are required to declare any direct or indirect interests in such matters or transactions, and shall abstain from voting at the meeting(s) where appropriate. Minutes of the meetings of the Board will record in details the matters considered by the Board and the decisions reached. The draft minutes of each meeting of the Board are sent to the Directors for comments within a reasonable time after the meeting.

During the year under review, the Company held twelve Board meetings and two general meetings, and all Directors were entitled to attend such meetings. The attendance of each Director is set out below:

	Meeting attended/held	
	Board meetings	**General meetings**
Executive Directors		
Mr. Cao Guoxian	12/12	2/2
Mr. Li Fujing	10/12	2/2
Mr. Xiao Yukun *(resigned on 26 August 2021)**	7/9	2/2
Mr. Li Qingsong *(appointed on 26 August 2021)***	3/3	0/0
Non-executive Director		
Ms. Hao Chunmei *(redesignated from Executive Director to Non-executive Director on 2 July 2021)*	11/12	2/2
Independent Non-executive Directors		
Mr. Pao Ping Wing	12/12	2/2
Mr. Cheng Kai Tai, Allen	11/12	2/2
Ms. Chan Yee Wah, Eva	12/12	2/2

* Nine Board meetings and two general meetings were held during his tenure in the year under review.

** Three Board meetings and no general meetings were held during his tenure in the year under review.

DIRECTORS' TRAINING AND PROFESSIONAL DEVELOPMENT

Directors should participate in continuous professional development to develop and refresh their knowledge and skills. This is to ensure that their contribution to the Board remains informed and relevant.

During the year ended 31 December 2021, all Directors had participated in appropriate continuous professional development activities by ways of attending training and/or reading materials relevant to the Company's business or to the Directors' duties and responsibilities. The trainings and professional development attended by each Director are as follows:

	Type of training
Executive Directors	
Mr. Cao Guoxian	A,B
Mr. Li Fujing	A,B
Mr. Xiao Yukun *(resigned on 26 August 2021)*	A,B
Mr. Li Qingsong *(appointed on 26 August 2021)*	A,B
Non-executive Director	
Ms. Hao Chunmei *(redesignated from Executive Director to Non-executive Director on 2 July 2021)*	A,B
Independent Non-executive Directors	
Mr. Pao Ping Wing	A,B
Mr. Cheng Kai Tai, Allen	A,B
Ms. Chan Yee Wah, Eva	A,B

Notes:

A: attending seminars/workshops/forums/training courses

B: reading newspapers, publications and updates in relation to economic and environmental issues or directors' duties and responsibilities

DIRECTOR'S AND OFFICER'S LIABILITY INSURANCE

The Company has arranged appropriate insurance coverage for its directors and Senior Management in connection with potential legal actions related to the performance of their duties.

CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The Chairman is responsible for the formulation of overall corporate direction and business development strategy of the Group. He is also responsible for ensuring that good corporate governance practices and procedures are established, implemented and enforced.

The Chief Executive Officer is responsible for the day-to-day management of the Group and the implementation of the strategies approved by the Board.

NON-EXECUTIVE DIRECTORS

During the year under review, the non-executive Director and each of independent non-executive Directors has entered into a letter of appointment with the Company for a term of three years, subject to retirement by rotation in accordance with the memorandum and articles of association of the Company.

BOARD COMMITTEES

Corporate Governance Functions

The Board is responsible for performing the corporate governance functions within its terms of reference. Such duties of the Board include:

(i) to develop and review corporate governance policies and practices of the Company;

(ii) to review and monitor the training and continuous professional development of Directors and Senior Management;

(iii) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;

(iv) to develop, review and monitor the code of conduct applicable to Directors and employees; and

(v) to review the Company's compliance with the Corporate Governance Code contained in the Appendix 14 to the Listing Rules and disclosures in the Corporate Governance Report.

During the year under review, the Board has reviewed the Company's internal control systems and corporate governance practices.

Nomination Committee

The Board established the Nomination Committee on 15 June 2006 with written terms of reference. During the year under review, the Nomination Committee comprises four members, the majority of whom are independent non-executive Directors. The chairman of the Nomination Committee is Mr. Cao Guoxian, an executive Director and the Chairman of the Board and other members are three independent non-executive Directors, namely, Mr. Pao Ping Wing, Mr. Cheng Kai Tai, Allen and Dr. Chan Yee Wah, Eva. The principal roles and functions of the Nomination Committee include:

– to review the structure, size and composition of the Board at least annually, and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy;

– to identify individuals suitably qualified to become members of the Board and select or make recommendations to the Board on the selection of individuals nominated for directorships;

– to assess the followings when making recommendations to the Board for election of an individual as an independent non-executive Director: (i) the independence of the independent non-executive Director; (ii) if the proposed independent non-executive Director will be holding their seventh (or more) listed company directorship, the individual would still be able to devote sufficient time to discharge director's duties; (iii) the perspectives, skills and experience that the individual can bring to the Board; and (iv) how the individual contributes to the diversity of the Board;

– to make recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors in particular the chairperson of the Board and the Chief Executive Officer; and

– to review the Board's policy and recommend to the Board on any revisions to it, as appropriate, to ensure its effectiveness.

All nominations of new Directors and Directors for re-election at annual general meeting are first considered by the Nomination Committee, its recommendations would then be put forward for the Board's decision. Subsequently, all those Directors are subject to election or re-election by the shareholders of the Company ("Shareholder") at annual general meeting pursuant to the memorandum and articles of association of the Company. In considering the new appointment or re-election of Directors, the Nomination Committee will focus their decisions based on attributes such as integrity, loyalty, industry exposure and professional and technical skills together with the ability to contribute time and effort to carry out their duties effectively and responsibly.

During the year under review, the Nomination Committee held three meetings to deal with the following matters: (i) the re-nomination of Ms. Hao Chunmei, Mr. Xiao Yukun and Mr. Pao Ping Wing who were retiring at the annual general meeting held on 29 June 2021 as Directors and they were willing for re-election at the same annual general meeting; (ii) the nomination of Ms. Hao Chunmei for redesignation as a non-executive Director from an executive Director; (iii) the nomination of Mr. Li Qingsong as an executive Director; and (iv) the change of the title of Mr. Zeng Zhaowu from Vice President (Chief Financial Officer) of the Company to Chief Accountant (Chief Financial Officer) of the Company and the resignation of Ms. Liu Jing and Ms. You Meihua as Vice Presidents of the Company.

The individual attendance records of each member of the Nomination Committee is set out below:

	Meetings attended/held
Mr. Cao Guoxian *(Chairman of the Nomination Committee)*	3/3
Mr. Pao Ping Wing	3/3
Mr. Cheng Kai Tai, Allen	3/3
Ms. Chan Yee Wah, Eva	3/3

Remuneration Committee

The Company established the Remuneration Committee on 15 June 2006 with written terms of references. During the year under review, the Remuneration Committee comprises three members, the majority of whom are independent non-executive Directors. The chairman of the Remuneration Committee is Mr. Pao Ping Wing, an independent non-executive Director and other members are Mr. Cheng Kai Tai, Allen, an independent non-executive Director and Mr. Cao Guoxian, an executive Director and the Chairman of the Board. The principal roles and functions of the Remuneration Committee include:

– to make recommendations to the Board on the Company's policy and structure for remuneration of all Directors and Senior Management;

– to approve the terms of executive Directors' service contracts;

– to have the delegated responsibility to determine the specific remuneration packages of all executive Directors and Senior Management, and make recommendations to the Board of the remuneration of non-executive Directors and independent non-executive Directors;

– to review and approve performance-based remuneration with reference to corporate goals and objectives resolved by the Board from time to time;

– to review and approve the compensation payable to executive Directors and Senior Management in connection with any loss or termination of their respective office or appointment; and

– to review and approve compensation arrangements relating to dismissal or removal of Directors for misconduct.

During the year under review, the Remuneration Committee held three meetings to consider and review remuneration packages for all or individual Directors and Senior Management.

The individual attendance records of each member of the Remuneration Committee is set out below:

	Meetings attended/held
Mr. Pao Ping Wing *(Chairman of the Remuneration Committee)*	3/3
Mr. Cheng Kai Tai, Allen	3/3
Mr. Cao Guoxian	3/3

As incentive to attract, retain and motivate employees and Senior Management to strive for future business development and expansion of the Group, an annual appraisal had been conducted by the Company and employees have been rewarded a performance bonus based on the results of such annual appraisal.

Audit Committee

The Company established the Audit Committee on 15 June 2006 with written terms of reference in compliance with the Code. The Audit Committee comprises three independent non-executive Directors namely, Dr. Chan Yee Wah, Eva, Mr. Pao Ping Wing, and Mr. Cheng Kai Tai, Allen respectively. Dr. Chan Yee Wah, Eva is the chairlady of the Audit Committee. All members of the Audit Committee possess the necessary qualifications or experience in financial matters and are well versed and well exposed in the accounting and financial areas, which are crucial to their key roles and functions. The principal roles and functions of the Audit Committee include:

– to consider and recommend to the Board on the appointment, re-appointment and removal of external auditors, and to approve their remuneration, and any matter relating to their resignation and dismissal;

– to maintain an appropriate relationship with the Group's external auditors;

– to review the financial information of the Group;

– to oversee the Group's financial reporting system, risk management and internal control systems;

– to maintain an appropriate arrangement allowing employees of the Group to draw attention to improprieties in financial reporting, internal monitoring or otherwise; and

– to act as the key representative body for overseeing the Group's relations with the external auditor.

During the year under review, the Audit Committee had held two meetings with the Group's Senior Management and its external auditors. The attendance records of each member of the Audit Committee is set out below:

	Meetings attended/held
Dr. Chan Yee Wah, Eva *(Chairlady of the Audit Committee)*	2/2
Mr. Pao Ping Wing	2/2
Mr. Cheng Kai Tai, Allen	2/2

The work performed by the Audit Committee during the year under review includes:

– reviewing the interim report and interim results announcement for the six months ended 30 June 2021;

– reviewing the annual report and annual results announcement for the year ended 31 December 2020;

– reviewing the accounting principles and practices adopted by the Group and other financial reporting matters;

– discussing with external auditor any significant findings and audit issues;

– discussing with the Senior Management the effectiveness of the risk management and internal control systems of the Group, including financial, operational and compliance controls; and

– reviewing all significant business affairs managed by the executive Directors.

Minutes of the meetings of the Audit Committee have recorded the details of the matters considered by the members of the Audit Committee and the decisions reached. Drafts of these minutes were sent to the members of the Audit Committee for comments within a reasonable time after meeting.

AUDITOR'S REMUNERATION

For the year ended 31 December 2021, the auditors' remuneration paid or payable in respect of the audit services and non-audit services provided by the auditors to the Group were as follows:

	RMB'000
Audit service	4,295
Non-audit service	2,238
	6,533

RISK MANAGEMENT AND INTERNAL CONTROLS

Goals and objectives

The Board acknowledges that it is responsible for the risk management and internal control systems and reviewing their effectiveness on an ongoing basis. Such risk management and internal control systems include a defined management structure with limits of authority, and are designed for the Company to identify and manage the significant risks it faces in achieving its business objectives, safeguard its assets against unauthorized use or disposition, ensure the maintenance of proper accounting records for the provision of reliable financial information for internal use or for publication, and ensure compliance with relevant laws and regulations. The systems are designed to manage, rather than eliminate, the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss.

Main features of the risk management and internal control systems

The Company's risk governance structure clarifies the function of unified leadership to guarantee the overall work efficiency and the performance of their respective duties among departments and mutual cooperation, perfects the internal control to improve its power of execution and builds the review mechanism of internal control to facilitate the effective operation of the system. The Company's risk governance structure and the main duties of each level of the structure are summarized as follows:

Board of Directors

– to determine the nature and extent of the risks the Company is willing to take in achieving the strategic objectives;

– to ensure that the Company establishes and maintains appropriate and effective risk management and internal control systems;

– to oversee the Management in the design, implementation and monitoring of the risk management and internal control systems; and

– to ensure that the adequacy of resources, staff qualifications and experience, training programs and budget of the Company's accounting, internal audit and financial reporting functions.

Management

– to be responsible for the exhaustive risk identification and management, including the collection of risk information, the identification and evaluation of risks;

– to develop the main management guidelines and operations of daily business process of the Company, including the management methods of internal control, operating control manuals, operating control evaluation manuals, management rules, day-to-day execution and information disclosure; and

– to be responsible for carrying out the internal control process and self-check.

Internal Audit Department and Corporate Management Department

The internal audit department performs the Company's internal audit function, while the corporate management department is responsible for the Company's risk management and internal control management function, including:

– to be responsible for leading the construction of internal control;

– to lead the risk assessment and build up the risk register;

– to formulate the risk-oriented internal auditing plan and perform independent internal control supervision and assessment; and

– to be responsible for reporting to the Audit Committee the results of internal control supervision and assessment.

Procedures for Identifying, Assessing and Managing Significant Risks

The Company's procedures for identifying, assessing and managing significant risks are summarized as follows:

Internal Environment

– In line with the Company's own internal development needs and the regulatory requirements of the regulatory authorities, the Company has adopted an internal control system with its own characteristics to gradually improve the standard of its corporate governance.

Risk Assessment

– to identify the Company's risks based on the risk preference and risk tolerance of the Company determined by the Board; and

– to prioritize the risk in accordance with their likelihood of occurrence and impact on the business.

Control Activities

– With reference to the basic standards for enterprise internal control and related guidelines, the Company has established sound management rules and processes.

Information and Communication

– to regularly report to the Board the results of risk monitoring, including the risk register, internal audit plan and work report prepared by external independent consultants.

Monitoring
In accordance with the internal control and management methods of the internal control, the Company:

– sets up the internal control organization system;

– formulates the specific procedures, methods and work requirements for the risk identification, construction, evaluation and issue of evaluation report; and

– includes the internal control evaluation into the performance appraisal system of the Company to ensure the effectiveness of internal control.

During the year, the Board has engaged an external independent consultant to conduct various agreed upon reviews over the Company's certain major risk management and internal control systems and report the findings of the reviews and recommendations to the Board to assist the Board in performing the annual review in terms of the effectiveness of risk management and internal control systems for the year ended 31 December 2021.

The Board has reviewed the effectiveness of the risk management and internal control systems of the Company and its subsidiaries for the year ended 31 December 2021, including the financial, operational and compliance controls, and considers that the relevant systems are effective and adequate.

Inside Information
The Company has formulated the policy for the handling and dissemination of inside information. The Company regularly reminds the Directors and employees of proper compliance with all policies on inside information. In addition, the Company also performed the internal training on disclosure requirements for listed companies in Hong Kong to update the relevant employees of latest regulatory requirements. The Company will regularly review and update the guidelines or policies to ensure compliance with regulatory requirements.

LEGAL COMPLIANCE
In order to promote the legal compliance and comprehensively improve the legal governance capabilities and level of the Company, the Company formally confirmed the establishment of the Legal Compliance Leading Group and the Legal Compliance Committee under it in January 2019.

During 2021, under the leadership of the Legal Compliance Leading Group of the Company, the main tasks of the Legal Compliance Committee are as follows:

– regularly holds a meeting of the Legal Compliance Committee;

– 100% of the contracts, systems and significant decisions of the Company are fundamentally subject to legal review;

– complete the target set in the 2021 letter of responsibility for cleaning up cases;

– the legal affairs department carried out a centralized inspection as to the legal compliance by project subsidiaries, thus making recommendations on the rectification of the problems identified and supervising the completion of rectification; and

– organizes legal staff to attend professional training regularly and conducts a full promotion on the legal compliance of the Company.

COMPANY SECRETARY

The company secretary of the Company ("Company Secretary") is a full-time employee of the Company, has an understanding of the Company's day-to-day affairs, and shall be responsible to the Board. All Directors are able to seek advice and services from the Company Secretary on the procedures of the Board and all applicable laws, rules and regulations, and corporate governance matters. The Company Secretary assists the Chairman of the Board to prepare agendas and papers of the Board for meetings and disseminates such documents to the Directors and board committees in a timely manner. The Company Secretary maintains formal minutes of the meetings of the Board and the meetings of Board committees.

During the year ended 31 December 2021, the Company Secretary had confirmed that she had taken no less than 15 hours of relevant professional training.

SHAREHOLDERS' RIGHTS

Convening of extraordinary general meeting on requisition by Shareholders

Pursuant to article 58 of the articles of association of the Company, extraordinary general meetings of the Company (the "EGM(s)") shall be convened on the requisition of one or more Shareholders holding, at the date of deposit of the requisition, not less than one-tenth of the paid up capital of the Company having the right of voting at general meetings. Such requisition shall be made in writing to the Board or the Company Secretary for the purpose of requiring an EGM to be called by the Board for the transaction of any business specified in such requisition. Such meeting shall be held within two months after the deposit of such requisition. If within 21 days of such deposit the Board fails to proceed to convene such meeting, the requisitionist(s) himself (themselves) may do so in the same manner, and all reasonable expenses incurred by the requisitionist(s), as a result of the failure of the Board to convene the EGM(s), shall be reimbursed to the requisitionist(s) by the Company.

Procedures for putting forward proposals at Shareholders' meeting

The number of Shareholders necessary for putting forward a proposal at a Shareholders' meeting shall be any number of Shareholders representing not less than one-tenth of the paid up capital of the Company carrying the right of voting at general meetings at the date of the request.

Procedures for proposing an individual person for election as a Director

As regards the procedures for proposing an individual person for election as a Director, please refer to the "Procedures for Directors' Election" made available under the Corporate Governance section of the Company's website at www.cehl.com.hk.

Procedures for putting forward enquiries to the Board

Annual general meetings and EGMs also provide an effective platform for Shareholders to communicate with the Board. Members of the Board (including members of the Audit Committee, the Remuneration Committee and the Nomination Committee) attended Shareholders' meetings and make themselves available to answer Shareholders' questions. Enquiries of Shareholders may also be put forward to the Board in writing through contacting the Company Secretary by way of telephone number, email address or the Company's principal place of business in Hong Kong, as stated in our website.

INVESTOR RELATIONS

Communication with Shareholders is given the highest priority. To promote and enhance investor relations and communications, the Company has established and maintained intensive communication channels with the media, analysts and fund managers through one-on-one meetings, road shows and conferences. Designated members of the Board and the Senior Management of the Group are given the specific responsibilities to maintain regular dialogues with institutional investors, potential institutional investors, fund managers, Shareholders and analysts to keep them abreast of the Company's development.

The Company regards the annual general meeting as an important event as it provides an important opportunity for direct communications between the Board and the Shareholders in the presence of the Company's external auditors. All Directors and Senior Management of the Group will make the special effort to attend, notwithstanding their place of residence. External auditors' presence at the meeting would also allow them to address Shareholders' queries. Notice of general meetings together with relevant circulars shall be dispatched to Shareholders and they are encouraged to attend the annual general meeting and other general meetings. The procedure of general meeting is conducted in compliance with the Listing Rules and the articles of association of the Company, where sufficient time was given to Shareholders for consideration of resolutions proposed and for question and answer, leading to satisfactory communications between the Management and Shareholders. Announcement of the resolutions passed at such meeting was published on both the websites of the Stock Exchange and the Company in a timely manner.

During the year ended 31 December 2021, there had been no significant change in the Company's constitutional documents.

DIRECTORS' RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS

The Directors acknowledge their responsibilities for the preparation of the financial statements for each financial year, which give a true and fair view of the state of affairs of the Group and of the results and cash flow for that year and in compliance with relevant laws and disclosure provisions of the Listing Rules. In preparing the financial statements for the year ended 31 December 2021, the Directors have selected appropriate accounting policies and applied them consistently; made judgments and estimates that are prudent and reasonable; and have prepared the financial statements on a going concern basis. The Directors are responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position of the Group.

DIRECTORS' REPORT

DIRECTORS' REPORT

The board of the Company ("Board") present their report together with the audited consolidated financial statements for the year ended 31 December 2021.

PRINCIPAL ACTIVITIES

The Company acts as an investment holding company. The Group is principally engaged in provision of waste treatment technologies and services which specializes in technology development, design, system integration, project investment, consultancy, operation and maintenance of waste treatment facilities, especially waste-to-energy projects. Particulars of the Company's principal subsidiaries are set out in note 1 to the consolidated financial statements.

RESULTS AND DIVIDEND

The results of the Group for the year ended 31 December 2021 are set out in the consolidated statement of profit or loss and comprehensive income on pages 49 to 50 of this annual report.

The Board did not recommend the payment of final dividend for the year ended 31 December 2021 (as at 31 December 2020: nil).

DIVIDEND POLICY

The Board aims to not only deliver continuous return to the shareholders of the Company ("Shareholder") but also maintain sufficient reserve for the Group's future development. Pursuant to the dividend policy of the Company ("Dividend Policy"), the Board will consider various factors in determining whether to declare any dividend and the amount of the relevant dividend, including but not limited to (i) the actual and expected financial results and financial position of the Group; (ii) the expected working capital requirements, capital expenditure requirements and future expansion plans of the Group; (iii) the actual and future operation and liquidity position of the Group; (iv) the Group's debt-to-equity ratio, equity return ratio and committed financial covenants; (v) the general economic and political conditions and other internal or external factors that may have an impact on the business or financial performance and position of the Company; and (vi) any other factors that the Board deems appropriate.

The Company will still review the Dividend Policy from time to time and there is no assurance that dividends will be paid in any particular amount for any given period. The payment of dividends is also subject to the requirements of the laws of the Cayman Islands and the memorandum and articles of association of the Company.

BUSINESS REVIEW

A review of the business of the Group during the year, an analysis of the Group's performance during the year using financial key performance indicators, a discussion on the Group's future business development and description of possible risks and uncertainties that the Group may be facing are set out under the section headed Management Discussion and Analysis on pages 9 to 18 of the annual report. The financial risk management objectives and policies of the Group can be found in note 51 to the consolidated financial statements.

RESERVES

The Company did not have distributable reserves as at 31 December 2021.

Movements in reserves of the Group during the year are set out in the consolidated statement of changes in equity on pages 53 to 54 of this annual report.

FINANCIAL SUMMARY

A summary of the results and of the assets and liabilities of the Group for the last five financial years is set out on page 160 of this annual report.

PROPERTY, PLANT AND EQUIPMENT

Details of movements in the property, plant and equipment of the Group during the year are set out in note 13 to the consolidated financial statements.

SHARE CAPITAL

Details of the movements in the share capital of the Company during the year are set out in note 38 to the consolidated financial statements.

PREFERENCE SHARES

The Company issued an aggregate of 16,316,200 cumulative perpetual non-voting and non-convertible preference shares (the "Preference Shares") to Beijing Capital (Hong Kong) Limited and BCG Chinastar International Investment Limited in December 2020 and May 2021 respectively. The Preference Shares were issued at par value of HK$100 each. The Preference Shares are perpetual and have no maturity date. The Preference Shares are not convertible into ordinary shares of the Company and the holders thereof have no right to request the Company to redeem their Preference Shares or to sell back their Preference Shares to the Company.

BONDS

On 29 May 2020, the Company issued publicly a total amount of RMB1 billion bonds in the PRC with a coupon rate of 3.10% and a maturity of 5 years, attached to which an option of the Company to adjust the coupon rate and an option of investors to resale at the end of the third interest-bearing year. The bonds were issued at par value of RMB100 each and were listed on the Shanghai Stock Exchange.

The bonds are covered by an irrevocable joint and several liability guarantee provided by Beijing Capital Group Co., Ltd., ("Beijing Capital Group") the controlling shareholder of the Company. The bonds are rated "AAA" by China Chengxin International Credit Rating Company Limited, a nationwide joint-stock non-bank financial institution engaged in credit rating, financial bond advisory and information services. All proceeds from issue of the bonds will be used to replenish the working capital for the Company's domestic operations and to repay interest-bearing debts.

NOTES

On 11 September and 18 October 2018, the Company issued the 5.625% notes due 2021 with an aggregate carrying amount of US$300,000,000. The Notes have the benefit of a keepwell and liquidity support deed and a deed of equity interest purchase undertaking provided by Beijing Capital Group, the controlling shareholder of the Company. The notes are rated "BBB" by Fitch Ratings Ltd. All the proceeds from issue of the notes were used in accordance with the Green Bond Framework of Beijing Capital Group to fund or refinance Eligible Green Assets and Projects undertaken by the Company. These notes were fully redeemed upon due on 10 September 2021.

BANK BORROWINGS

Details of the Group's bank borrowings are set out in note 33 to the consolidated financial statements.

DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

At no time during the year was the Company, its holding company, any of its subsidiaries or fellow subsidiaries, a party to any arrangements to enable the Directors or any of their respective spouses or children under the age of 18 to acquire benefits by means of acquisition of shares in or debentures of the Company or any other body corporate.

DIRECTORS

The list of Directors during the year and up to the date of this annual report is set out as follows:

Executive Directors

Mr. Cao Guoxian *(Chairman)*
Mr. Li Fujing *(Chief Executive Officer)*
Mr. Xiao Yukun *(resigned on 26 August 2021)*
Mr. Li Qingsong *(Executive General Manager, appointed on 26 August 2021)*

Non-executive Director

Ms. Hao Chunmei *(redesignated from Executive Director to Non-executive Director on 2 July 2021)*

Independent Non-executive Directors

Mr. Pao Ping Wing
Mr. Cheng Kai Tai, Allen
Dr. Chan Yee Wah, Eva

In accordance with articles 86 and 87 of the articles of association of the Company, Mr. Cao Guoxian, Mr. Li Qingsong, Mr. Cheng Kai Tai, Allen and Dr. Chan Yee Wah, Eva, will retire from office and, being eligible, offer themselves for re-election at the forthcoming annual general meeting.

The Company has received annual confirmations of independence pursuant to Rule 3.13 of the Rules Governing the Listing Securities on the Stock Exchange of Hong Kong Limited ("Listing Rules") from each of the independent non-executive Directors and considers them to be independent. Mr. Pao Ping Wing, Mr. Cheng Kai Tai, Allen and Dr. Chan Yee Wah, Eva, the independent non-executive Directors, have been serving in the Company for more than 9 years. However, there is no evidence suggesting that the independence of any of them has already been or will be compromised or affected, especially in terms of the exercise of independent judgment and the provision of objective opinions to the management. The Board is confident that Mr. Pao Ping Wing, Mr. Cheng Kai Tai, Allen and Dr. Chan Yee Wah, Eva will and continue to make valuable contributions to the Company by providing balanced and objective opinions to the Board.

BIOGRAPHICAL DETAILS OF DIRECTORS AND SENIOR MANAGEMENT

The biographical details of the Directors and Senior Management are set out on pages 19 to 22 of this annual report.

PERMITTED INDEMNITY PROVISIONS

The permitted indemnity provisions (as defined in the Hong Kong Companies Ordinance) in relation to the directors' and officers' liability insurance have been in force.

DIRECTORS' SERVICE CONTRACTS

Each of the executive and non-executive Directors has entered into a service contract with the Company for a term of three years, and will continue thereafter until terminated by either party thereto giving to the other not less than three months' prior notice in writing.

Each of the independent non-executive Directors has entered into a letter of appointment with the Company for a term of three years.

Save as disclosed above, none of the Directors has entered into any service contract with the Company which is not terminable by the Company within one year without payment of compensation, other than statutory compensation.

DIRECTORS' INTERESTS IN CONTRACTS

There are no contracts of significance in relation to the Group's business to which the Company, its holding company or any of its subsidiaries or fellow subsidiaries was a party, and in which a Director had a material interest, whether directly or indirectly, subsisted at the year-end or at any time during the year.

DIRECTORS' INTERESTS IN COMPETING BUSINESS

As at 31 December 2021, none of the Directors had any interest in any business, apart from the Group's business, which competes or is likely to compete, either directly or indirectly with the Group's business.

INTERESTS AND SHORT POSITIONS OF THE DIRECTORS IN SHARES, UNDERLYING SHARES AND DEBENTURES OF THE COMPANY AND ITS ASSOCIATED CORPORATIONS

As at 31 December 2021, none of the Directors, chief executives of the Company or their associates had any interests or short positions in any shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (the "SFO")) which were required to be recorded in the register maintained by the Company pursuant to Section 352 of the SFO, or as otherwise notified to the Company and the Stock Exchange pursuant to Model Code.

The Company has no any share option schemes currently in force.

INTERESTS AND SHORT POSITIONS OF SUBSTANTIAL SHAREHOLDERS IN SHARES AND UNDERLYING SHARES OF THE COMPANY

As at 31 December 2021, the following Shareholders had interests or short positions in the shares and underlying shares of the Company which were recorded in the register required to be kept by the Company pursuant to Section 336 of the SFO:

Name of shareholders	Capacity	Number of shares/underlying shares held	Approximate percentage of shareholding
Beijing Capital (Hong Kong) Limited	Beneficial owner (Note 1)	6,449,026,736 (L)	45.11%
Beijing Capital Eco-Environment Protection Group Co., Ltd.	Interest of a controlled corporation (Note 1)	6,449,026,736 (L)	45.11%
BCG Chinastar International Investment Limited	Beneficial owner (Note 2)	3,116,767,072 (L)	21.80%
Beijing Capital Group Co., Ltd.	Interest of a controlled corporation (Notes 1 & 2)	9,565,793,808 (L)	66.92%

(L) denotes a long position

Notes:

1. Beijing Capital (Hong Kong) Limited was a wholly-owned subsidiary of Beijing Capital Eco-Environment Protection Group Co., Ltd. which was controlled by Beijing Capital Group Co., Ltd.. As such, Beijing Capital Group Co., Ltd. and Beijing Capital Eco-Environment Protection Group Co., Ltd. were deemed to have interest in the shares held by Beijing Capital (Hong Kong) Limited for the purposes of the SFO.

2. BCG Chinastar International Investment Limited was a wholly-owned subsidiary of Beijing Capital Group Co., Ltd.. Therefore, Beijing Capital Group Co., Ltd. was deemed to be interested in the shares held by BCG Chinastar International Investment Limited for the purposes of the SFO.

Save as aforesaid, the Company was not aware of any person who had any interests or short positions in the shares or underlying shares of the Company as at 31 December 2021 which were required to be notified to the Company pursuant to Part XV of the SFO or which were recorded in the register required to be kept by the Company under Section 336 of the SFO.

CONNECTED TRANSACTIONS

During the year, the Group had the following discloseable continuing connected transaction or connected transactions, details of which are disclosed in compliance with the requirements of Chapter 14A of the Listing Rules.

Corporate Financing Guarantee Service

On 7 November 2017, Beijing Capital Environment Investment Limited（北京首創環境投資有限公司）("Capital Investment"), a wholly owned subsidiary of the Company and Beijing Capital Group entered into an entrustment guarantee agreement, pursuant to which Beijing Capital Group provides corporate financing guarantee service to Capital Investment. Beijing Capital Group, as the guarantor under the Entrustment Guarantee Agreement, agreed to provide guarantee to Ping An Asset Management Co., Ltd. ("Ping An Asset") in respect of a financing agreement, so as to procure that Ping An Asset provides the Group with a loan of up to RMB1,000,000,000 in aggregate. Capital Investment shall pay to Beijing Capital Group, a guarantee fee for such service which is calculated at the rate of 0.6% per annum on the total principal amount in respect of which Beijing Capital Group assumed the guarantee liability. Pursuant to the Entrustment Guarantee Agreement, the annual cap for the maximum guarantee fee payable by the Group was RMB6 million.

As at 31 December 2021, the Group drew down a sum of loans of RMB900 million from Ping An Asset under the Financing Agreement. The Group's guarantee fee payable to Beijing Capital Group for the year ended 31 December 2021 was approximately RMB5.40 million.

On 7 November 2017 (i.e. the date of the Entrustment Guarantee Agreement) and 31 December 2021 (i.e. the end date of the year under review), Beijing Capital Group was the controlling shareholder of the Company, indirectly holding 66.92% of the share capital of the Company. Beijing Capital Group is the connected person of the Company under Chapter 14A of the Listing Rules. As the applicable percentage ratios of the continuing connected transaction with respect to the payment of guarantee fee to Beijing Capital Group by Capital Investment exceed 0.1% but less than 5%, the transaction is subject to the reporting, annual review and announcement requirements, but exempt from the independent shareholders' approval requirement, under Chapter 14A of the Listing Rules.

Pursuant to Rule 14A.56 of the Listing Rules, the Board appointed the auditor of the Company to carry out several agreed audit procedures in respect of the continuing connected transaction. The auditor reported to the Board, the actual audit findings of such procedures.

The independent non-executive Directors have reviewed the aforesaid continuing connected transaction and confirmed that such transaction was entered into:

1. in the ordinary and usual course of business of the Group;

2. on normal commercial terms or better; and

3. according to the agreement governing such transaction that are fair and reasonable and in the interests of the shareholders of the Company as a whole.

Issue of cumulative perpetual non-voting and non-convertible preference shares

On 29 September 2020, the Company, Beijing Capital (Hong Kong) Limited ("Beijing Capital (HK)") and BCG Chinastar International Investment Limited ("BCG Chinastar") entered into a subscription agreement, pursuant to which the Company issued 11,000,000 and 5,316,200 cumulative perpetual non-voting and non-convertible preference shares ("Preference Shares") to Beijing Capital (HK) and BCG Chinastar on 22 December 2020 and 31 December 2020 and 14 May 2021, respectively. The Preference Shares were issued at par value of HK$100 each. The Preference Shares are perpetual and have no expiration date. The Preference Shares are not convertible into ordinary shares of the Company and the holders thereof have no right to request the Company to redeem their Preference Shares or to sell back their Preference Shares to the Company.

Beijing Capital (HK) and BCG Chinastar, being a substantial shareholders of the Company, directly held 45.11% and 21.80% of the issued share capital of the Company as at 29 September 2020 (being the date of the subscription agreement), respectively. Accordingly, Beijing Capital (HK) and BCG Chinastar are connected persons of the Company under the Listing Rules and thus the issue of the Preference Shares constitutes connected transactions of the Company under Rule 14A.25 of the Listing Rules and is subject to the reporting, announcement and independent shareholders' approval requirements under Chapter 14A of the Listing Rules.

PUBLIC FLOAT

Based on information that is publicly available to the Company and within the knowledge of the Directors, the Company has maintained a sufficient public float as at the date of this report.

MAJOR CUSTOMERS AND SUPPLIERS

Sales to the Group's five largest customers accounted for 25.73% of the Group's sales for the year and sales to the Group's largest customer included therein accounted for 9.55%.

Purchase from the Group's five largest suppliers accounted for 16.56% of the Group's total purchases for the year and purchase from the Group's largest customer included therein accounted for 8.53%.

None of the Directors of the Company or any of their associates or any Shareholders (which, to the best knowledge of the Directors, owned more than 5% of the Company's issued share capital) had any beneficial interest in any of the Group's five largest customers or five largest suppliers.

PRE-EMPTIVE RIGHTS

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

PURCHASE, SALE OR REDEMPTION OF LISTED SECURITIES OF THE COMPANY

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

CORPORATE GOVERNANCE

The Company's corporate governance principles and practices are set out in the Corporate Governance Report on pages 23 to 34 of this annual report.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE

Information on the Company's fulfillment of its environmental and social responsibilities will be set out in the Environmental, Social and Governance report, which will be uploaded to the website of the Company and the website of the Stock Exchange by the end of April 2022.

AUDITORS

The consolidated financial statements for the year ended 31 December 2021 have been audited by Ernst & Young who will retire and, being eligible, offer themselves for re-appointment at the forthcoming annual general meeting of the Company.

On behalf of the Board

Cao Guoxian
Chairman

Hong Kong, 29 March 2022

INDEPENDENT AUDITOR'S REPORT

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To the shareholders of Capital Environment Holdings Limited
(Incorporated in the Cayman Islands with limited liability)

OPINION

We have audited the consolidated financial statements of Capital Environment Holdings Limited (the "Company") and its subsidiaries (the "Group") set out on pages 49 to 159, which comprise the consolidated statement of financial position as at 31 December 2021, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

BASIS FOR OPINION

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

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

Key audit matter	How our audit addressed the key audit matter

Accounting treatment for service concession arrangements

The Group entered into service concession arrangements with government authorities or their designators in respect of the waste management and waste-to-energy business in the People's Republic of China. The arrangements were accounted for in accordance with HK(IFRIC)-Int 12 *Service Concession Arrangements*. The accounting treatment for service concession arrangements involved significant management judgements and estimates, including the determination of applicable accounting models, estimation of the future guaranteed receipts, prevailing market rates of construction gross margins and discount rates as used in the valuation process, and the determination of the percentage of completion of construction services. As a result, we identified the accounting treatment for service concession arrangements as a key audit matter requiring special audit consideration.

The accounting policies and disclosures for service concession arrangements are included in note 2.4 Summary of significant accounting policies – Service concession arrangements, note 3 Significant accounting judgements and estimates – Service concession arrangements, note 3 Significant accounting judgements and estimates – Percentage of completion of construction work, note 5 Revenue, other income and gains, note 16 Other intangible assets, note 21 Concession financial assets and note 22 Contract assets to the consolidated financial statements.

Our audit procedures included the following, among others:

– We evaluated the accounting models adopted by the Group and assessed the future guaranteed receipts by reviewing the contract terms of the service concession arrangements. We performed a comparison of the inputs to the accounting models with external market data, especially for gross margin, for which we considered the observable market data and comparable companies in the industry. In addition, we involved our internal valuation specialists to assist us in evaluating the discount rates.

– We evaluated management's assessment of the percentage of completion of construction services by inquiring management about the status of significant projects under construction and examining independent surveyors' reports. We tested the underlying data adopted by the independent surveyors engaged by the Group, which included checking to the purchase contracts, invoices and goods delivery notes for construction costs. We also obtained an understanding of and tested management's process of estimating the total budget cost and costs to completion for incomplete construction contracts.

In addition, we assessed the adequacy of the relevant disclosures.

Key audit matter	How our audit addressed the key audit matter

Impairment of other intangible assets in relation to service concession arrangements

Key audit matter	How our audit addressed the key audit matter
Other intangible assets in relation to service concession arrangements represented waste treatment and waste-to-energy operating rights where the Group has the right to charge local government authorities for treating waste and to charge the other users for products produced during the waste treatment process. Under HKAS 36, the Group is required to perform impairment testing of other intangible assets in relation to service concession arrangements when an indicator of impairment has been identified. The process requires management to make assumptions to be used in the underlying cash flow forecasts, in particular those related to the future revenue growth rate, operating margins and discount rate. Management performed impairment testing with respect to the assets of those loss-making projects during the operation phase with a total gross amount of RMB583 million as at 31 December 2021 and impairment amounting to RMB64 million was provided for in the current year. Given the level of judgement involved and the significance of the amounts, we considered this as a key audit matter. The accounting policies and disclosures of impairment of other intangible assets in relation to service concession arrangements are included in note 2.4 Summary of significant accounting policies – Service concession arrangements, note 2.4 Summary of significant accounting policies – Intangible assets (other than goodwill), note 2.4 Summary of significant accounting policies – Impairment of non-financial assets, note 3 Significant accounting judgements and estimates – Impairment of non-financial assets (other than goodwill and intangible assets with indefinite useful lives) and note 16 Other intangible assets to the consolidated financial statements.	Our audit procedures included the following, among others: – We evaluated the Group's policies and procedures to identify triggering events for potential impairment of assets related to the underperforming cash-generating units and management's assessment on impairment indicators. – We evaluated the methodologies and discount rate used by the Group with the assistance of our internal valuation specialists. We compared the key assumptions used in the impairment test made by management, i.e., the future revenue growth rate over the concession period and operating margin, to the historical performance of the Group, management's business development plan and the future prospects of the business. – We reviewed the sensitivity analysis for the recoverable amounts of the respective cash-generating units prepared by management. We also assessed the adequacy of the relevant disclosures, especially for those key assumptions to which the outcome of the impairment test is sensitive.

Key audit matter	How our audit addressed the key audit matter
Impairment of goodwill and intangible assets with indefinite useful lives	
Under HKAS 36, the Group is required to perform impairment testing of goodwill and intangible assets with indefinite useful lives at least annually. The process is highly judgemental and is based on assumptions, in particular those related to the future revenue growth rate, operating margin, perpetual growth rate and discount rate. The annual impairment test was significant to our audit because the balances of RMB1,942 million of goodwill and RMB798 million of intangible assets with indefinite useful lives as at 31 December 2021 were material to the consolidated financial statements. Given the level of judgement involved and the significance of the balances, we considered this as a key audit matter. The accounting policies and disclosures for the impairment of goodwill and intangible assets with indefinite useful lives are included in note 2.4 Summary of significant accounting policies – Business combinations and goodwill, note 2.4 Summary of significant accounting policies – Intangible assets (other than goodwill), note 3 Significant accounting judgements and estimates – Impairment of goodwill and intangible assets with indefinite useful lives, note 15 Goodwill and note 16 Other intangible assets to the consolidated financial statements.	Our audit procedures included, among others, involving our internal valuation specialists to assist us in evaluating the assumptions, i.e., the perpetual growth rate and discount rate, and methodologies used by the Group, comparing the key assumptions used in the impairment test, i.e., the future revenue growth rate and operating margin, to the historical performance of the Group and management's business development plan, and reviewing the sensitivity analysis for the recoverable amounts of the respective cash-generating units prepared by management. We also assessed the adequacy of the relevant disclosures, especially for those key assumptions to which the outcome of the impairment test is sensitive.

OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than the consolidated financial statements and our auditor's report thereon.

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

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

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Our report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

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

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

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

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

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(Continued)*

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

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

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is Cheong Ming Yik.

Ernst & Young
Certified Public Accountants
Hong Kong
29 March 2022

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

Year ended 31 December 2021

	Notes	2021 *RMB'000*	2020 *RMB'000*
REVENUE	5	**7,902,604**	7,646,659
Cost of sales		**(5,505,267)**	(5,712,322)
Gross profit		**2,397,337**	1,934,337
Other income and gains	5	**90,325**	160,393
Administrative expenses		**(804,441)**	(679,324)
Impairment of other intangible assets		**(63,731)**	(83,218)
Other expenses		**(236,675)**	(32,998)
Finance costs	7	**(580,502)**	(554,713)
Share of profits and losses of:			
Joint ventures		**54,553**	39,758
Associates		**3,991**	(6,948)
PROFIT BEFORE TAX	6	**860,857**	777,287
Income tax expense	10	**(287,718)**	(281,365)
PROFIT FOR THE YEAR		**573,139**	495,922
Attributable to:			
Owners of the parent		**510,746**	465,041
Owners of the preference shareholders		**53,425**	1,082
Non-controlling interests		**8,968**	29,799
		573,139	495,922
EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT			
Basic	12	**RMB3.57 cents**	RMB3.25 cents
Diluted	12	**RMB3.57 cents**	RMB3.25 cents

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Year ended 31 December 2021

	2021 *RMB'000*	2020 *RMB'000*
PROFIT FOR THE YEAR	**573,139**	495,922
OTHER COMPREHENSIVE INCOME		
Other comprehensive income that may be reclassified to profit or loss in subsequent periods:		
Cash flow hedges:		
Effective portion of changes in fair value of hedging instruments arising during the year	**(12,371)**	(24,924)
Reclassification adjustments for gains included in the consolidated statement of profit or loss	**45,179**	16,865
Income tax effect	**(7,088)**	(1,271)
	25,720	(9,330)
Exchange differences:		
Exchange differences on translation of foreign operations	**(34,096)**	278,435
Net other comprehensive income that may be reclassified to profit or loss in subsequent periods	**(8,376)**	269,105
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:		
Equity investment designated at fair value through other comprehensive income:		
Changes in fair value	**(734)**	(519)
Exchange differences:		
Exchange differences on translation of the parent company	**(106,197)**	(50,233)
Net other comprehensive income that will not be reclassified to profit or loss in subsequent periods	**(106,931)**	(50,752)
OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX	**(115,307)**	218,353
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	**457,832**	714,275
Attributable to:		
Owners of the parent	**484,072**	682,031
Owners of the preference shareholders	**53,424**	1,082
Non-controlling interests	**(79,664)**	31,162
	457,832	714,275

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

31 December 2021

	Notes	**31 December 2021** *RMB'000*	31 December 2020 *RMB'000*
NON-CURRENT ASSETS			
Property, plant and equipment	13	**2,439,493**	2,604,229
Right-of-use assets	14	**1,310,731**	1,430,978
Goodwill	15	**1,941,793**	2,117,205
Other intangible assets	16	**4,924,125**	3,276,255
Investments in joint ventures	17	**401,708**	452,531
Investments in associates	19	**40,406**	97,573
Trade receivables	25	**193,676**	366,796
Equity investment designated at fair value through other comprehensive income	20	**16,665**	17,399
Deferred tax assets	37	**10,803**	15,448
Concession financial assets	21	**5,796,419**	4,455,330
Contract assets	22	**2,707,184**	3,105,749
Prepayments, other receivables and other assets	23	**159,472**	59,366
Pledged deposits	27	**3,026**	5,017
Total non-current assets		**19,945,501**	18,003,876
CURRENT ASSETS			
Inventories	24	**66,441**	114,605
Concession financial assets	21	**1,131,642**	805,902
Contract assets	22	**208,820**	123,917
Assets classified as held for sale	28	**492,075**	3,901
Trade receivables	25	**1,444,970**	1,132,849
Prepayments, other receivables and other assets	23	**1,157,724**	1,013,101
Derivative financial instruments	32	**1,766**	–
Amounts due from associates	26	**1,954**	48,690
Tax recoverable		**4,881**	–
Pledged deposits	27	**34,720**	45,175
Time deposits	27	**–**	5,000
Cash and cash equivalents	27	**1,682,745**	2,762,052
Total current assets		**6,227,738**	6,055,192
CURRENT LIABILITIES			
Trade payables	29	**2,062,996**	1,853,229
Other payables and accruals	30	**564,883**	529,748
Deferred income	31	**11,464**	8,143
Derivative financial instruments	32	**5,106**	24,679
Interest-bearing bank and other borrowings	33	**3,960,026**	3,860,172
Notes payable	34	**–**	1,950,197
Lease liabilities	14	**75,471**	64,651
Amounts due to related parties		**9,153**	1,939
Tax payable		**237,993**	228,377
Liabilities directly associated with the assets classified as held for sale	28	**195,836**	–
Total current liabilities		**7,122,928**	8,521,135
NET CURRENT LIABILITIES		**(895,190)**	(2,465,943)
TOTAL ASSETS LESS CURRENT LIABILITIES		**19,050,311**	15,537,933

31 December 2021

	Notes	31 December 2021 RMB'000	31 December 2020 RMB'000
NON-CURRENT LIABILITIES			
Deferred income	31	**235,726**	202,606
Interest-bearing bank and other borrowings	33	**7,770,598**	4,856,974
Lease liabilities	14	**1,244,235**	1,300,481
Corporate bonds	35	**996,514**	995,529
Derivative financial instruments	32	**–**	13,224
Deferred tax liabilities	37	**868,804**	725,606
Provisions	36	**217,813**	254,498
Total non-current liabilities		**11,333,690**	8,348,918
Net assets		**7,716,621**	7,189,015
EQUITY			
Equity attributable to equity holders of the parent			
Issued capital	38	**1,188,219**	1,188,219
Other equity instruments	39	**1,367,694**	1,316,938
Reserves	40	**3,654,983**	3,117,487
		6,210,896	5,622,644
Non-controlling interests		**1,505,725**	1,566,371
Total equity		**7,716,621**	7,189,015

CAO GUOXIAN
Director

LI FUJING
Director

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Year ended 31 December 2021

	Attributable to equity holders of the Company											
	Issued capital RMB'000 (note 38)	Share premium RMB'000	Other equity instruments RMB'000 (note 39)	Capital reserve RMB'000	Merger reserve RMB'000	Cash flow hedge reserve RMB'000	Fair value reserve of financial assets at fair value through other comprehensive income RMB'000	Exchange fluctuation reserve RMB'000	Retained profits RMB'000	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000
At 1 January 2020	1,188,219	1,670,391	–	4,702	(481,084)	(10,037)	1,684	(213,779)	1,462,497	3,622,593	1,618,661	5,241,254
Profit for the year	–	–	–	–	–	–	–	–	466,123	466,123	29,799	495,922
Other comprehensive income for the year:												
Changes in fair value of financial assets at fair value through other comprehensive income, net of tax	–	–	–	–	–	–	(519)	–	–	(519)	–	(519)
Cash flow hedge, net of tax	–	–	–	–	–	(10,931)	–	–	–	(10,931)	1,601	(9,330)
Exchange differences related to foreign operations	–	–	–	–	–	–	–	228,440	–	228,440	(238)	228,202
Total comprehensive income for the year	–	–	–	–	–	(10,931)	(519)	228,440	466,123	683,113	31,162	714,275
Capital contribution from non-controlling shareholders of subsidiaries	–	–	–	–	–	–	–	–	–	–	9,038	9,038
Decrease of capital from a non-controlling shareholder	–	–	–	–	–	–	–	–	–	–	(45,000)	(45,000)
Dividend paid to a non-controlling shareholder	–	–	–	–	–	–	–	–	–	–	(47,490)	(47,490)
Capital contribution from the preference shareholders	–	–	1,316,938	–	–	–	–	–	–	1,316,938	–	1,316,938
At 31 December 2020	1,188,219	1,670,391	1,316,938	4,702	(481,084)	(20,968)	1,165	14,661	1,928,620	5,622,644	1,566,371	7,189,015

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (CONTINUED)

Year ended 31 December 2021

	Attributable to equity holders of the Company											
	Issued capital *RMB'000* (note 38)	Share premium *RMB'000*	Other equity instruments *RMB'000* (note 39)	Capital reserve *RMB'000*	Merger reserve *RMB'000*	Cash flow hedge reserve *RMB'000*	Fair value reserve of financial assets at fair value through other comprehensive income *RMB'000*	Exchange fluctuation reserve *RMB'000*	Retained profits *RMB'000*	Total *RMB'000*	Non-controlling interests *RMB'000*	Total equity *RMB'000*
At 1 January 2021	1,188,219	1,670,391	1,316,938	4,702	(481,084)	(20,968)	1,165	14,661	1,928,620	5,622,644	1,566,371	7,189,015
Profit for the year	–	–	–	–	–	–	–	–	564,171	564,171	8,968	573,139
Other comprehensive income for the year:												
Changes in fair value of financial assets at fair value through other comprehensive income, net of tax	–	–	–	–	–	–	(734)	–	–	(734)	–	(734)
Cash flow hedge, net of tax	–	–	–	–	–	16,789	–	–	–	16,789	8,931	25,720
Exchange differences related to foreign operations	–	–	–	–	–	–	–	(42,730)	–	(42,730)	(97,563)	(140,293)
Total comprehensive income for the year	–	–	–	–	–	16,789	(734)	(42,730)	564,171	537,496	(79,664)	457,832
Capital contribution from non-controlling shareholders of subsidiaries	–	–	–	–	–	–	–	–	–	–	16,953	16,953
Acquisition of a subsidiary (note 42)	–	–	–	–	–	–	–	–	–	–	39,925	39,925
De-registration of subsidiaries	–	–	–	–	–	–	–	–	–	–	(2,400)	(2,400)
Dividend paid to a non-controlling shareholder	–	–	–	–	–	–	–	–	–	–	(35,460)	(35,460)
Capital contribution from the preference shareholders	–	–	50,756	–	–	–	–	–	–	50,756	–	50,756
At 31 December 2021	1,188,219	1,670,391*	1,367,694	4,702*	(481,084)*	(4,179)*	431*	(28,069)*	2,492,791*	6,210,896	1,505,725	7,716,621

* These reserve accounts comprise the consolidated reserves of RMB3,654,983,000 (31 December 2020: RMB3,117,487,000) in the consolidated statement of financial position.

Merger reserve represents the difference between the fair value of the consideration paid for the acquisition of a 51% interest in BCG NZ Investment Holding Limited ("BCG NZ"), which is under common control of the Company's ultimate controlling shareholder, and the carrying amounts of the net assets of BCG NZ acquired.

CONSOLIDATED STATEMENT OF CASH FLOWS

Year ended 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before tax		**860,857**	777,287
Adjustments for:			
Depreciation of property, plant and equipment	13	**301,080**	278,951
Amortisation of other intangible assets	16	**140,313**	122,349
Depreciation of right-of-use assets	14	**70,786**	53,008
Gain on disposal of items of property, plant and equipment	5	**(3,041)**	(825)
Gain on termination of a service concession arrangement	5	**(18,382)**	–
Written-down of assets classified as held for sale to fair value	6	**28,879**	–
Gain on disposal of an associate	5	**(5,401)**	–
Impairment of prepayments, other receivables and other assets	6	**11,406**	(420)
Impairment of trade receivables	6	**37,793**	11,675
Impairment of concession financial assets and relevant contract assets	6	**7,262**	–
Impairment of other intangible assets	6	**63,731**	83,218
Impairment loss recognised on property, plant and equipment	6	**26,632**	–
Impairment loss recognised on goodwill	6	**6,766**	–
Share of results of joint ventures		**(54,553)**	(39,758)
Share of results of associates		**(3,991)**	6,948
Interest income		**(405,180)**	(313,924)
Finance costs	7	**580,502**	554,713
Gain on step acquisition	5	**–**	(7,381)
Loss on disposal of a subsidiary	6	**7,550**	–
Loss on de-registration of subsidiaries		**373**	–
		1,653,382	1,525,841
Decrease/(increase) in inventories		**17,114**	(29,069)
Increase in concession financial assets and relevant contract assets in relation to service concession arrangements		**(1,712,370)**	(1,852,566)
Increase in trade receivables		**(578,514)**	(177,977)
Increase in other contract assets		**(88,761)**	(42,493)
Increase in prepayments, other receivables and other assets		**(34,471)**	(146,613)
Increase in deferred income		**42,476**	20,305
Increase in trade payables		**245,508**	743,364
Increase in other payables and accruals		**77,084**	122,094
Decrease in provision	36	**(7,055)**	(3,169)
Cash from/(used in) operations		**(385,607)**	159,717
Profits tax paid		**(59,464)**	(56,937)
Net cash flows from/(used in) operating activities		**(445,071)**	102,780

CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

Year ended 31 December 2021

	Notes	2021 RMB'000	2020 RMB'000
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of items of property, plant and equipment		**(409,157)**	(577,838)
Additions of other intangible assets in relation to service concession arrangements and related contract assets		**(967,639)**	(1,455,154)
Additions to other intangible assets		**(2,539)**	(3,642)
Purchase of leasehold land		**–**	(9,604)
Proceeds from disposal of items of property, plant and equipment		**9,037**	5,666
(Increase)/decrease in assets held for sale		**(22,431)**	5,774
Dividends received from joint ventures		**69,389**	38,787
Dividends received from an associate		**1,793**	–
Interest received		**12,772**	27,098
Acquisition of subsidiaries	42	**(138,117)**	(14,208)
Disposal of a subsidiary	43	**(1,099)**	–
Disposal of an associate		**131,200**	–
Capital injection to an associate		**(28,121)**	(317)
Decrease/(increase) in time deposits		**5,000**	(5,000)
Decrease in pledged deposits		**12,446**	10,549
Net cash flows used in investing activities		**(1,327,466)**	(1,977,889)
CASH FLOWS FROM FINANCING ACTIVITIES			
Interest paid		**(605,108)**	(584,259)
New bank and other borrowings		**5,823,626**	2,764,371
Proceeds from issue of preference shares	39	**50,756**	1,316,938
Proceeds from issue of corporate bonds	35	**–**	992,000
Principal portion of lease payments		**(39,062)**	(34,060)
Repayment of bank and other borrowings		**(2,527,650)**	(1,378,309)
Repayment of notes payable	34	**(1,910,220)**	–
Dividends paid to a non-controlling shareholder		**(35,460)**	(47,490)
Acquisition of non-controlling interests of subsidiaries		**–**	(4,440)
Capital contribution from non-controlling shareholders of subsidiaries		**16,953**	9,038
Decrease of capital from a non-controlling shareholder		**(9,000)**	(22,436)
Net cash flows from financing activities		**764,835**	3,011,353
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**(1,007,702)**	1,136,244
Cash and cash equivalents at beginning of year		**2,762,052**	1,540,029
Effect of foreign exchange rate changes, net		**(71,605)**	85,779
CASH AND CASH EQUIVALENTS AT END OF YEAR		**1,682,745**	2,762,052
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS			
Cash and bank balances	27	**1,720,491**	2,817,244
Time deposits with original maturity over three months	27	**–**	(5,000)
Pledged deposits	27	**(37,746)**	(50,192)
Cash and cash equivalents as stated in the statement of cash flows		**1,682,745**	2,762,052

1. CORPORATE AND GROUP INFORMATION

Capital Environment Holdings Limited (the "Company") was incorporated in the Cayman Islands under the Companies Law as an exempted company with limited liability on 27 May 2004 and its shares have been listed on the Main Board of The Stock Exchange of Hong Kong Limited with effect from 13 July 2006. The address of the registered office is Cricket Square, Hutchins Drive, P.O. Box 2681, Grand Cayman, KY1-1111, the Cayman Islands. The Company's head office and principal place of business in Hong Kong is located at Unit 1613-1618, 16th Floor, Bank of America Tower, 12 Harcourt Road, Central.

The Company and its subsidiaries (the "Group") are involved in the waste treatment and waste-to-energy business.

The immediate holding company of the Company is Beijing Capital (Hong Kong) Limited ("Beijing Capital (HK)"), a company incorporated in Hong Kong, and the ultimate holding company is Beijing Capital Group Co., Ltd. ("Beijing Capital Group"), a state-owned enterprise registered in the People's Republic of China ("PRC").

Information about subsidiaries

Particulars of the Company's principal subsidiaries are as follows:

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Capital Environment Investment Limited (首創環保投資有限公司)	Hong Kong	HK$500,000,000	100	–	Investment holding
Nanchang Capital Environment Energy Co., Ltd. (南昌首創環保能源有限公司)	PRC/Mainland China	RMB484,000,000	–	100	Waste treatment and waste-to-energy generation
Yangzhou Capital Environmental Energy Investment Limited (揚州首創環保能源有限公司)	PRC/Mainland China	RMB60,000,000	–	100	Kitchen waste treatment
Beijing Capital Environment Investment Limited (北京首創環境投資有限公司)	PRC/Mainland China	RMB2,704,000,000	–	100	Provision of technical services
Duyun Kelin Environment Company Limited (都勻市科林環保有限公司)	PRC/Mainland China	RMB40,000,000	–	100	Municipal solid waste treatment
Nanyang Capital Environment Technology Company Limited (南陽首創環境科技有限公司)	PRC/Mainland China	RMB200,250,000	–	100	Municipal solid waste treatment
Duyun Capital Environmental Sanitation Services Limited (都勻市首創環衛服務有限公司)	PRC/Mainland China	RMB5,000,000	–	100	Waste collection and transportation
Weng'an Kelin Environment Company Limited (甕安縣科林環保有限公司)	PRC/Mainland China	RMB21,000,000	–	100	Municipal solid waste treatment

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company Direct	Indirect	Principal activities
Jiangsu Subei Waste Vehicles and Household Appliances Dismantling Recycling Limited (江蘇蘇北廢舊汽車家電拆解再生利用有限公司)*	PRC/Mainland China	RMB116,000,000	–	55	Recycling and disassembly of waste electrical and electronic equipment
Xinxiang Capital Solid Environmental Energy Limited (新鄉市首創環境能源有限公司)	PRC/Mainland China	RMB99,320,000	–	97.99	Waste treatment and waste-to-energy generation
Anhui Capital Environmental Technology Company Limited (安徽首創環境科技有限公司)	PRC/Mainland China	RMB80,000,000	–	95	Recycling and disassembly of waste electrical and electronic equipment
Huizhou Guanghui Energy Company Limited (惠州廣惠能源有限公司)*	PRC/Mainland China	RMB500,600,000	–	98.95	Waste treatment and waste-to-energy generation
Huludao Kangte Jincheng Environment Management Company Limited (葫蘆島康達錦程環境治理有限公司)	PRC/Mainland China	RMB40,000,000	–	100	Municipal solid waste treatment
Zhejiang Zhuoshang Environmental Energy Company Limited (浙江卓尚環保能源有限公司)	PRC/Mainland China	RMB60,000,000	–	70	Kitchen waste treatment
Ningbo Capital Environment Kitchen Waste Treatment Company Limited (寧波首創廚餘垃圾處理有限公司)*	PRC/Mainland China	RMB90,200,000	–	60	Kitchen waste treatment
Yangzhou Capital Solid Environment Technology Limited (揚州首拓環境科技有限公司)	PRC/Mainland China	RMB80,000,000	–	100	Hazardous waste treatment
Beijing Capital Environment Technology Company Limited (北京首創環境科技有限公司)**	PRC/Mainland China	RMB180,646,295	–	100	Provision of technical services
Yangzhou Capital Investment Limited (揚州首創投資有限公司)**	PRC/Mainland China	US$60,500,000	–	100	Investment holding
Gaoan Eacoon Renewable Resources for Thermal Power Generation Company Limited (高安意高再生資源熱力發電有限公司)	PRC/Mainland China	RMB110,000,000	–	60	Waste treatment and waste-to-energy generation

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company Direct	Indirect	Principal activities
Xihua Capital Environment Resources Limited (西華首創環保能源有限公司)	PRC/Mainland China	RMB100,000,000	–	100	Waste treatment and waste-to-energy generation
Xihua Capital Environment Sanitation Limited (西華首創環衛有限公司)	PRC/Mainland China	RMB15,000,000	–	100	Waste collection and transportation
Zibo Capital Solid Environment Technology Limited (淄博首拓環境科技有限公司)	PRC/Mainland China	RMB128,730,000	–	100	Hazardous waste treatment
Shicheng Capital Environment Limited (石城縣首創環保有限公司)	PRC/Mainland China	RMB20,000,000	–	60	Municipal solid waste treatment
Qianjiang Capital Bolang Green Energy Limited (潛江首創博朗綠色能源有限公司)	PRC/Mainland China	RMB100,000,000	–	100	Waste treatment and waste-to-energy generation
Suixian Capital Environmental Energy Limited (睢縣首創環保能源有限公司)	PRC/Mainland China	RMB100,000,000	–	100	Waste treatment and waste-to-energy generation
Suixian Capital Environmental Sanitation Limited (睢縣首創環衛有限公司)	PRC/Mainland China	RMB10,000,000	–	100	Waste collection and transportation
Beijing Capital Environment Engineering Co., Ltd. (北京首創環境工程有限公司)**	PRC/Mainland China	RMB86,400,000	–	100	Waste treatment
Guangchang Capital Environment Co., Ltd. (廣昌縣首創環保有限公司)	PRC/Mainland China	RMB10,000,000	–	100	Waste collection and transportation
Mianyang Lubo Lubricant Co., Ltd. (綿陽路博潤滑油脂有限公司)	PRC/Mainland China	RMB51,120,000	–	55	Hazardous waste treatment
Shenzhen Qianhai Capital Environment Investment Limited (深圳前海首創環境投資有限公司)**	PRC/Mainland China	HK$2,200,000,000	100	–	Investment holding
Linyi Capital Environmental Hygiene Limited (臨猗首創環衛有限公司)	PRC/Mainland China	RMB7,000,000	–	100	Waste collection and transportation
Duyun Capital Environment Company Limited (都勻市首創環保有限公司)	PRC/Mainland China	RMB137,160,000	–	62.09	Waste treatment and waste-to-energy generation

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company Direct	Indirect	Principal activities
Jiangxi Ruijin Ai Si Environmental Electric Limited (瑞金首創環保能源有限公司)	PRC/Mainland China	RMB100,000,000	–	97	Waste treatment and waste-to-energy generation
Lushan Capital Environment Energy Company Limited (魯山首創環保能源有限公司)	PRC/Mainland China	RMB110,000,000	–	90	Waste treatment and waste-to-energy generation
Qixian Capital Environmental Energy Company Limited (杞縣首創環保能源有限公司)	PRC/Mainland China	RMB80,000,000	–	90	Waste treatment and waste-to-energy generation
Zhengyang Capital Environmental Energy Company Limited (正陽首創環保能源有限公司)	PRC/Mainland China	RMB100,000,000	–	100	Waste treatment and waste-to-energy generation
Suiping Capital Environmental Sanitation Company Limited (遂平首創城鄉環衛有限公司)	PRC/Mainland China	RMB10,000,000	–	100	Waste collection and transportation
Beijing Shoujian Environmental Protection Company Limited (北京首建環保有限責任公司)	PRC/Mainland China	RMB80,700,000	–	55	Construction waste treatment technical services
Beijing Capital Environmental Sanitation Company Limited (北京首創環衛有限公司)	PRC/Mainland China	RMB5,000,000	–	100	Waste sweep
Beijing Capital Solid Environment Technology Co., Ltd. (北京首拓環境科技有限公司)**	PRC/Mainland China	RMB50,000,000	–	100	Provision of technical services
Dingxi Capital Solid Environment Energy Co., Ltd. (定西首拓環保能源有限公司)	PRC/Mainland China	RMB4,480,000	–	100	Waste collection and transportation
Luoyang Capital Solid Environment Services Co., Ltd. (洛陽首拓環境服務有限公司)	PRC/Mainland China	RMB3,000,000	–	80	Hazardous waste treatment
Yongji Huaxinda Clean Energy Co., Ltd. (永濟市華信達清潔能源有限公司)	PRC/Mainland China	RMB100,000,000	–	80	Waste treatment and waste-to-energy generation

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company Direct	Indirect	Principal activities
Huainan Capital Environment Recovery Engineering Co., Ltd. (淮南首創環境修復工程有限公司)	PRC/Mainland China	RMB66,900,000	–	100	Restoration and operation of waste accumulation sites
Shangrao Fengshun Solid Waste Treatment Co., Ltd. (上饒市風順生活垃圾處理有限公司)	PRC/Mainland China	RMB28,571,500	–	100	Municipal solid waste treatment
Yingde Laohuyan Solid Waste Treatment Co., Ltd. (英德市老虎岩生活垃圾處理有限公司)	PRC/Mainland China	RMB10,000,000	–	100	Municipal solid waste treatment
Yutian Capital Environmental Energy Co., Ltd. (玉田首創環保能源有限公司)	PRC/Mainland China	RMB106,920,000	–	100	Waste treatment and waste-to-energy generation
Gaoan Capital Environmental Sanitation Co., Ltd. (高安首創環衛有限公司)	PRC/Mainland China	RMB20,000,000	–	51	Waste collection and transportation
Zhumadian Tailai Environmental Protection Energy Co., Ltd. (駐馬店泰來環保能源有限公司)	PRC/Mainland China	RMB208,842,420	–	85.64	Waste treatment and waste-to-energy generation
Qixian Capital Biomass Energy Co., Ltd. (杞縣首創生物質能源有限公司)	PRC/Mainland China	RMB80,000,000	–	100	Biomass incineration power generation
Beijing Capital Shunzheng Environmental Energy Technology Co., Ltd. (北京首創順政環保能源科技有限公司)	PRC/Mainland China	RMB50,000,000	–	51	Waste treatment and waste-to-energy generation
Nongan Capital Environmental Energy Co., Ltd. (農安首創環保能源有限公司)	PRC/Mainland China	RMB135,000,000	–	100	Waste treatment and waste-to-energy generation
Duchang Capital Environmental Energy Co., Ltd. (都昌縣首創環保能源有限公司)	PRC/Mainland China	RMB193,000,000	–	100	Waste treatment and waste-to-energy generation
Tanghe Capital Environmental Energy Co., Ltd. (唐河首創環保能源有限公司)	PRC/Mainland China	RMB125,000,000	–	100	Waste treatment and waste-to-energy generation
Renqiu Capital Environmental Treatment Co., Ltd. (任丘首創環境治理有限公司)	PRC/Mainland China	RMB66,650,000	–	89.91	Municipal solid waste treatment

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

Name	Place of incorporation/ registration and business	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company Direct	Indirect	Principal activities
Fuzhou Capital Haihuan Environmental Technology Co., Ltd. (福州首創海環環保科技有限公司) *	PRC/Mainland China	RMB113,690,000	51	0.44	Kitchen waste treatment
Fuzhou Capital Solid Environment Development Co., Ltd. (福州首拓環境發展有限公司)	PRC/Mainland China	RMB10,000,000	–	100	Investment holding
Puer Capital Environmental Energy Co., Ltd. (普洱首創環保能源有限公司)	PRC/Mainland China	RMB91,078,900	–	89.8	Waste treatment and waste-to-energy generation
Xiangxi Autonomous Prefecture Capital Environmental Co., Ltd. (湘西自治州首創環保有限公司)	PRC/Mainland China	RMB220,000,000	–	88.5	Waste treatment and waste-to-energy generation
Huojia Capital Environmental Treatment Co., Ltd. (獲嘉縣首創環境治理有限公司)	PRC/Mainland China	RMB14,700,000	–	66.7	Municipal solid waste treatment
Shenzhou Capital Environmental Energy Co., Ltd. (深州首創環保能源有限公司)	PRC/Mainland China	RMB78,600,000	–	99	Waste treatment and waste-to-energy generation
Lushan Capital Biomass Energy Co., Ltd. (魯山首創生物質能源有限公司)	PRC/Mainland China	RMB92,000,000	–	100	Biomass incineration power generation
Suichuan Capital Environmental Energy Co., Ltd. (遂川首創環保能源有限公司) *	PRC/Mainland China	RMB118,000,000	–	100	Waste treatment and waste-to-energy generation
Puyang Capital Environmental Energy Co., Ltd. (濮陽首創環保能源有限公司)	PRC/Mainland China	RMB116,608,100	–	99	Waste treatment and waste-to-energy generation
Wuzhong Capital Solid Environment Technology Co., Ltd. (吳忠市首拓環境科技有限公司)	PRC/Mainland China	RMB131,000,000	–	100	Hazardous waste treatment
BCG NZ Investment Holding Limited	Hong Kong	NZ$389,987,539	51	–	Investment holding
Beijing Capital Group NZ Investment Holding Limited	New Zealand	NZ$209,987,539	–	51	Investment holding
Waste Management NZ Limited	New Zealand	–	–	51	Waste management services

* The entities are registered as Sino-foreign equity joint ventures.

** The entities are wholly-foreign-owned enterprises under PRC law.

1. CORPORATE AND GROUP INFORMATION *(Continued)*

Information about subsidiaries *(Continued)*

The other subsidiaries registered in the PRC are domestic companies with limited liability under PRC law.

The above table lists the subsidiaries of the Company which, in the opinion of the directors, principally affected the results for the year or formed a substantial portion of the net assets of the Group. To give details of other subsidiaries would, in the opinion of the directors, result in particulars of excessive length.

2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKASs") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for derivative financial instruments and equity investments which have been measured at fair value. These financial statements are presented in Renminbi ("RMB") and all values are rounded to the nearest thousand except when otherwise indicated.

The Group's net current liabilities were RMB895,190,000 as at 31 December 2021. The financial statements are still presented on the basis of going concern as the Group has undrawn borrowing facilities amounting to RMB3,286,253,000 as at 31 December 2021 to support the Group's going concern if necessary.

Basis of consolidation

The consolidated financial statements include the financial statements of the Group for the year ended 31 December 2021. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

(a) the contractual arrangement with the other vote holders of the investee;

(b) rights arising from other contractual arrangements; and

(c) the Group's voting rights and potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

2.1 BASIS OF PREPARATION *(Continued)*

Basis of consolidation *(Continued)*

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following revised HKFRSs for the first time for the current year's financial statements:

Amendments to HKFRS 9, HKAS 39 and HKFRS 7, HKFRS 4 and HKFRS 16	*Interest Rate Benchmark Reform – Phase 2*
Amendment to HKFRS 16	*Covid-19-Related Rent Concessions beyond 30 June 2021* (early adopted)

The nature and the impact of the revised HKFRSs are described below:

(a) Amendments to HKFRS 9, HKAS 39, HKFRS 7, HKFRS 4 and HKFRS 16 address issues not dealt with in the previous amendments which affect financial reporting when an existing interest rate benchmark is replaced with an alternative risk-free rate ("RFR"). The amendments provide a practical expedient to allow the effective interest rate to be updated without adjusting the carrying amount of financial assets and liabilities when accounting for changes in the basis for determining the contractual cash flows of financial assets and liabilities, if the change is a direct consequence of the interest rate benchmark reform and the new basis for determining the contractual cash flows is economically equivalent to the previous basis immediately preceding the change. In addition, the amendments permit changes required by the interest rate benchmark reform to be made to hedge designations and hedge documentation without the hedging relationship being discontinued. Any gains or losses that could arise on transition are dealt with through the normal requirements of HKFRS 9 to measure and recognise hedge ineffectiveness. The amendments also provide a temporary relief to entities from having to meet the separately identifiable requirement when an RFR is designated as a risk component. The relief allows an entity, upon designation of the hedge, to assume that the separately identifiable requirement is met, provided the entity reasonably expects the RFR risk component to become separately identifiable within the next 24 months. Furthermore, the amendments require an entity to disclose additional information to enable users of financial statements to understand the effect of interest rate benchmark reform on an entity's financial instruments and risk management strategy.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES *(Continued)*

(a) *(Continued)*

The Group had certain interest-bearing bank borrowings denominated in Hong Kong dollars based on the Hong Kong Interbank Offered Rate ("HIBOR") and United States dollars based on the London Interbank Offered Rate ("LIBOR") as at 31 December 2021. The Group also had an interest rate swap whereby the Group would pay interest at a fixed rate of 2.74% (1.34%+1.4%) and receive interest at a variable rate based on HIBOR (HIBOR+1.4%) on the notional amount. The Group expects that HIBOR will continue to exist and the interest rate benchmark reform has not had an impact on the Group's HIBOR-based borrowings. For the LIBOR-based borrowings, HIBOR-based borrowings and related interest rate swap, since the interest rates of these borrowings were not replaced by RFRs during the year, the amendments did not have any impact on the financial position and performance of the Group. If the interest rates of these borrowings and interest rate swap are replaced by RFRs in a future period, the Group will apply the above-mentioned practical expedient upon the modification of these instruments provided that the "economically equivalent" criterion is met. Additional information about the transition and the associated risks is disclosed in note 32 to the financial statements.

(b) Amendment to HKFRS 16 issued in April 2021 extends the availability of the practical expedient for lessees to elect not to apply lease modification accounting for rent concessions arising as a direct consequence of the covid-19 pandemic by 12 months. Accordingly, the practical expedient applies to rent concessions for which any reduction in lease payments affects only payments originally due on or before 30 June 2022, provided the other conditions for applying the practical expedient are met. The amendment is effective retrospectively for annual periods beginning on or after 1 April 2021 with any cumulative effect of initially applying the amendment recognised as an adjustment to the opening balance of retained profits at the beginning of the current accounting period. Earlier application is permitted.

The Group has early adopted the amendment on 1 January 2021. However, the Group has not received covid-19-related rent concessions and plans to apply the practical expedient when it becomes applicable within the allowed period of application.

Except the accounting policies above, the IFRS Interpretations Committee (IFRIC) issued an agenda decision in March 2021 for configuration and customisation costs incurred related to implementing Software as a Service (SaaS) arrangements. The Group has assessed the impact of the agenda decision on its current accounting policy, which resulted in previously capitalised costs needed to be recognised as an expense. However, in the opinion of the directors, the amount was not material for this year and no retrospective adjustment was made in the financial statements.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS

The Group has not applied the following new and revised HKFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to HKFRS 3	*Reference to the Conceptual Framework*[1]
Amendments to HKFRS 10 and HKAS 28 (2011)	*Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*[3]
HKFRS 17	*Insurance Contracts*[2]
Amendments to HKFRS 17	*Insurance Contracts*[2,5]
Amendments to HKAS 1	*Classification of Liabilities as Current or Non-current*[2,4]
Amendments to HKAS 1 and HKFRS Practice Statement 2	*Disclosure of Accounting Policies*[2]
Amendments to HKAS 8	*Definition of Accounting Estimates*[2]
Amendments to HKAS 12	*Deferred Tax related to Assets and Liabilities arising from a Single Transaction*[2]
Amendments to HKAS 16	*Property, Plant and Equipment: Proceeds before Intended Use*[1]
Amendments to HKAS 37	*Onerous Contracts – Cost of Fulfilling a Contract*[1]
Annual Improvements to HKFRSs 2018-2020	Amendments to HKFRS 1, HKFRS 9, Illustrative Examples accompanying HKFRS 16, and HKAS 41[1]

1 Effective for annual periods beginning on or after 1 January 2022
2 Effective for annual periods beginning on or after 1 January 2023
3 No mandatory effective date yet determined but available for adoption
4 As a consequence of the amendments to HKAS 1, Hong Kong Interpretation 5 *Presentation of Financial Statements – Classification by the Borrower of a Term Loan that Contains a Repayment on Demand Clause* was revised in October 2020 to align the corresponding wording with no change in conclusion
5 As a consequence of the amendments to HKFRS 17 issued in October 2020, HKFRS 4 was amended to extend the temporary exemption that permits insurers to apply HKAS 39 rather than HKFRS 9 for annual periods beginning before 1 January 2023

Further information about those HKFRSs that are expected to be applicable to the Group is described below.

Amendments to HKFRS 3 are intended to replace a reference to the previous *Framework for the Preparation and Presentation of Financial Statements* with a reference to the *Conceptual Framework for Financial Reporting* issued in June 2018 without significantly changing its requirements. The amendments also add to HKFRS 3 an exception to its recognition principle for an entity to refer to the Conceptual Framework to determine what constitutes an asset or a liability. The exception specifies that, for liabilities and contingent liabilities that would be within the scope of HKAS 37 or HK(IFRIC)-Int 21 if they were incurred separately rather than assumed in a business combination, an entity applying HKFRS 3 should refer to HKAS 37 or HK(IFRIC)-Int 21 respectively instead of the Conceptual Framework. Furthermore, the amendments clarify that contingent assets do not qualify for recognition at the acquisition date. The Group expects to adopt the amendments prospectively from 1 January 2022. Since the amendments apply prospectively to business combinations for which the acquisition date is on or after the date of first application, the Group will not be affected by these amendments on the date of transition.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(Continued)*

Amendments to HKFRS 10 and HKAS 28 (2011) address an inconsistency between the requirements in HKFRS 10 and in HKAS 28 (2011) in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The amendments require a full recognition of a gain or loss resulting from a downstream transaction when the sale or contribution of assets between an investor and its associate or joint venture constitutes a business. For a transaction involving assets that do not constitute a business, a gain or loss resulting from the transaction is recognised in the investor's profit or loss only to the extent of the unrelated investor's interest in that associate or joint venture. The amendments are to be applied prospectively. The previous mandatory effective date of amendments to HKFRS 10 and HKAS 28 (2011) was removed by the HKICPA in January 2016 and a new mandatory effective date will be determined after the completion of a broader review of accounting for associates and joint ventures. However, the amendments are available for adoption now.

Amendments to HKAS 1 *Classification of Liabilities as Current or Non-current* clarify the requirements for classifying liabilities as current or non-current. The amendments specify that if an entity's right to defer settlement of a liability is subject to the entity complying with specified conditions, the entity has a right to defer settlement of the liability at the end of the reporting period if it complies with those conditions at that date. Classification of a liability is unaffected by the likelihood that the entity will exercise its right to defer settlement of the liability. The amendments also clarify the situations that are considered a settlement of a liability. The amendments are effective for annual periods beginning on or after 1 January 2023 and shall be applied retrospectively. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's consolidated financial statements.

Amendments to HKAS 1 *Disclosure of Accounting Policies* require entities to disclose their material accounting policy information rather than their significant accounting policies. Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements. Amendments to HKFRS Practice Statement 2 provide non-mandatory guidance on how to apply the concept of materiality to accounting policy disclosures. Amendments to HKAS 1 are effective for annual periods beginning on or after 1 January 2023 and earlier application is permitted. Since the guidance provided in the amendments to HKFRS Practice Statement 2 is non-mandatory, an effective date for these amendments is not necessary. The Group is currently assessing the impact of the amendments on the Group's accounting policy disclosures.

Amendments to HKAS 8 clarify the distinction between changes in accounting estimates and changes in accounting policies. Accounting estimates are defined as monetary amounts in financial statements that are subject to measurement uncertainty. The amendments also clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments are effective for annual reporting periods beginning on or after 1 January 2023 and apply to changes in accounting policies and changes in accounting estimates that occur on or after the start of that period. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(Continued)*

Amendments to HKAS 12 narrow the scope of the initial recognition exception so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences, such as leases and decommissioning obligations. Therefore, entities are required to recognise a deferred tax asset and a deferred tax liability for temporary differences arising from these transactions. The amendments are effective for annual reporting periods beginning on or after 1 January 2023 and shall be applied to transactions related to leases and decommissioning obligations at the beginning of the earliest comparative period presented, with any cumulative effect recognised as an adjustment to the opening balance of retained profits or other component of equity as appropriate at that date. In addition, the amendments shall be applied prospectively to transactions other than leases and decommissioning obligations. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's consolidate financial statements.

Amendments to HKAS 16 prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognises the proceeds from selling any such items, and the cost of those items, in profit or loss. The amendments are effective for annual periods beginning on or after 1 January 2022 and shall be applied retrospectively only to items of property, plant and equipment made available for use on or after the beginning of the earliest period presented in the financial statements in which the entity first applies the amendments. Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's consolidated financial statements.

Amendments to HKAS 37 clarify that for the purpose of assessing whether a contract is onerous under HKAS 37, the cost of fulfilling the contract comprises the costs that relate directly to the contract. Costs that relate directly to a contract include both the incremental costs of fulfilling that contract (e.g., direct labour and materials) and an allocation of other costs that relate directly to fulfilling that contract (e.g., an allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract as well as contract management and supervision costs). General and administrative costs do not relate directly to a contract and are excluded unless they are explicitly chargeable to the counterparty under the contract. The amendments are effective for annual periods beginning on or after 1 January 2022 and shall be applied to contracts for which an entity has not yet fulfilled all its obligations at the beginning of the annual reporting period in which it first applies the amendments. Earlier application is permitted. Any cumulative effect of initially applying the amendments shall be recognised as an adjustment to the opening equity at the date of initial application without restating the comparative information. The amendments are not expected to have any significant impact on the Group's consolidated financial statements.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(Continued)*

Annual Improvements to HKFRSs 2018-2020 sets out amendments to HKFRS 1, HKFRS 9, Illustrative Examples accompanying HKFRS 16, and HKAS 41. Details of the amendments that are expected to be applicable to the Group are as follows:

- HKFRS 9 *Financial Instruments*: clarifies the fees that an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment. The amendment is effective for annual periods beginning on or after 1 January 2022. Earlier application is permitted. The amendment is not expected to have a significant impact on the Group's consolidated financial statements.

- HKFRS 16 *Leases*: removes the illustration of payments from the lessor relating to leasehold improvements in Illustrative Example 13 accompanying HKFRS 16. This removes potential confusion regarding the treatment of lease incentives when applying HKFRS 16. The amendment is not expected to have a significant impact on the Group's consolidated financial statements.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Investments in associates and joint ventures

An associate is an entity in which the Group has a long term interest of generally not less than 20% of the equity voting rights and over which it is in a position to exercise significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group's investments in associates and joint ventures are stated in the consolidated statement of financial position at the Group's share of net assets under the equity method of accounting, less any impairment losses. Adjustments are made to bring into line any dissimilar accounting policies that may exist.

The Group's share of the post-acquisition results and other comprehensive income of associates and joint ventures is included in the consolidated statement of profit or loss and consolidated other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate or joint venture, the Group recognises its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's investments in the associates or joint ventures, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of associates or joint ventures is included as part of the Group's investments in associates or joint ventures.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Investments in associates and joint ventures *(Continued)*

If an investment in an associate becomes an investment in a joint venture or vice versa, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method. In all other cases, upon loss of significant influence over the associate or joint control over the joint venture, the Group measures and recognises any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

When an investment in an associate or a joint venture is classified as held for sale, it is accounted for in accordance with HKFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

Interests in joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

The Group recognises in relation to its interest in a joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

The assets, liabilities, revenues and expenses relating to the Group's interest in a joint operation are accounted for in accordance with the HKFRSs applicable to the particular assets, liabilities, revenues and expenses.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

The Group determines that it has acquired a business when the acquired set of activities and assets includes an input and a substantive process that together significantly contribute to the ability to create outputs.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Business combinations and goodwill *(Continued)*

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability is measured at fair value with changes in fair value recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

Fair value measurement

The Group measures its investment properties, derivative financial instruments and equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Fair value measurement *(Continued)*

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1	–	based on quoted prices (unadjusted) in active markets for identical assets or liabilities
Level 2	–	based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly
Level 3	–	based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, contract assets, deferred tax assets, financial assets, investment properties and non-current assets/a disposal group classified as held for sale), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs. In testing a cash-generating unit for impairment, a portion of the carrying amount of a corporate asset (e.g., a headquarters building) is allocated to an individual cash-generating unit if it can be allocated on a reasonable and consistent basis or, otherwise, to the smallest group of cash-generating units.

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is charged to the statement of profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to the statement of profit or loss in the period in which it arises.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Related parties

A party is considered to be related to the Group if:

(a) the party is a person or a close member of that person's family and that person

(i) has control or joint control over the Group;

(ii) has significant influence over the Group; or

(iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

(b) the party is an entity where any of the following conditions applies:

(i) the entity and the Group are members of the same group;

(ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);

(iii) the entity and the Group are joint ventures of the same third party;

(iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;

(v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group; and the sponsoring employers of the post-employment benefit plan;

(vi) the entity is controlled or jointly controlled by a person identified in (a);

(vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and

(viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with HKFRS 5, as further explained in the accounting policy for "Non-current assets and disposal groups held for sale". The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Property, plant and equipment and depreciation *(Continued)*

Expenditure incurred after items of property and equipment have been put into operation, such as repairs and maintenance, is normally charged to the statement of profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

Except that the depreciation of landfill development costs is based on the portion used in the financial period as compared to the total anticipated waste volume of the landfill concerned, depreciation is calculated on the straight-line basis to write off the cost of each item of property and equipment to its residual value over its estimated useful life. The principal annual rates used for this purpose are as follows:

Freehold land	Not depreciated
Buildings	Over the shorter of the lease terms and 4%
Plant and machinery	6.67% to 20.00%
Furniture, fixtures and equipment	10.00% to 33.33%
Motor vehicles	6.67% to 33.33%
Leasehold improvements	Over the shorter of the lease terms and 20%

Where parts of an item of property and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

An item of property and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal or retirement recognised in the statement of profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents a building or equipment under construction, which is stated at cost less any impairment losses, and is not depreciated. Cost comprises the direct costs of construction and capitalised borrowing costs on related borrowed funds during the period of construction. Construction in progress is reclassified to the appropriate category of property and equipment when completed and ready for use.

Non-current assets and disposal groups held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amounts will be recovered principally through a sales transaction rather than through continuing use. For this to be the case, the asset or disposal group must be available for immediate sale in its present condition subject only to terms that are usual and customary for the sale of such assets or disposal groups and its sale must be highly probable. All assets and liabilities of a subsidiary classified as a disposal group are reclassified as held for sale regardless of whether the Group retains a non-controlling interest in its former subsidiary after the sale.

Non-current assets and disposal groups (other than investment properties and financial assets) classified as held for sale are measured at the lower of their carrying amounts and fair values less costs to sell. Property, plant and equipment and intangible assets classified as held for sale are not depreciated or amortised.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

Intangible assets with indefinite useful lives are tested for impairment annually either individually or at the cash-generating unit level. Such intangible assets are not amortised. The useful life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life assessment continues to be supportable. If not, the change in the useful life assessment from indefinite to finite is accounted for on a prospective basis.

Customer contracts

Customer contracts are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives of 16 to 19 years.

Service concession arrangements

Service concession arrangements recognised as intangible assets are stated at cost less any impairment losses and are amortised on a straight-line basis over their estimated useful lives of 2 to 30 years.

Licences and franchises

Licences and franchises with definite useful lives are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives of 2 to 27 years. Licences and franchises with indefinite useful lives are not amortised but tested for impairment annually.

Trade names and trademarks

Trade names and trademarks are intangible assets with indefinite useful lives and are not amortised but tested for impairment annually.

Software

Software is stated at cost less any impairment losses and is amortised on a straight-line basis over its estimated useful lives of 2 to 10 years.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

Deferred development costs are stated at cost less any impairment losses and are amortised using the straight-line basis over the commercial lives of the underling products not exceeding five to seven years, commencing from the date when the products are put into commercial production.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Leases

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

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

(a) *Right-of-use assets*

Right-of-use assets are recognised at the commencement date of the lease (that is the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and any impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Where applicable, the cost of a right-of-use asset also includes an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located. Right-of-use assets are depreciated on a straight-line basis over the shorter of the estimated useful lives of the assets and the lease terms as follows:

Buildings	1 to 51 years
Plant and machinery	1 to 52 years
Motor vehicles	1 to 5 years
Leasehold land	30 to 50 years

If ownership of the leased asset transfers to the Group by the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

(b) *Lease liabilities*

Lease liabilities are recognised at the commencement date of the lease at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for termination of a lease, if the lease term reflects the Group exercising the option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in future lease payments arising from change in an index or rate, a change in the lease term, a change in the in-substance fixed lease payments or a change in assessment of an option to purchase the underlying asset.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Leases *(Continued)*

Group as a lessee *(Continued)*

(c) Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (that is those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for leases of low-value assets to leases of office equipment and laptop computers that are considered to be of low value.

Lease payments on short-term leases and leases of low-value assets are recognised as an expense on a straight-line basis over the lease term.

Group as a lessor

When the Group acts as a lessor, it classifies at lease inception (or when there is a lease modification) each of its leases as either an operating lease or a finance lease.

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. When a contract contains lease and non-lease components, the Group allocates the consideration in the contract to each component on a relative stand-alone selling price basis. Rental income is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of profit or loss due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

Leases that transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee are accounted for as finance leases.

Service concession arrangements

When the Group has an unconditional contractual right to receive cash or another financial asset from or at the direction of the government authorities or their designators for the construction services and the government authorities or their designators have little, if any, discretion to avoid payment, usually because the agreement is enforceable by law, it recognises a financial asset at fair value upon initial recognition. Subsequent to initial recognition, the financial asset is carried at amortised cost using the effective interest method, less any identified impairment losses.

When the Group has a right to charge users of public services as a consideration for providing service in a service concession arrangement, which is not an unconditional right to receive cash because the amounts are contingent on the extent of waste treatment/electricity generation. The right is recognised as an intangible asset at fair value upon initial recognition. Subsequent to initial recognition, the intangible asset is carried at cost less accumulated amortisation and any accumulated impairment losses. Amortisation of intangible asset arising from a service concession arrangement is calculated to write off their costs over their useful lives, using a straight-line basis. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Service concession arrangements *(Continued)*

If the Group is paid partly by a financial asset and partly by an intangible asset, in which case each component of the consideration is accounted for separately and the consideration received or receivable for both components shall be recognised initially at the fair value of the consideration received or receivable.

The Group has contractual obligations under the service concession arrangements to maintain the infrastructure to a specified level of serviceability, or to restore the infrastructure to a specified condition before it is handed over to the government authorities or their designators at the end of the service concession arrangement. These contractual obligations to maintain and restore the infrastructure are measured at the best estimate of the expenditure that would be required to settle the present obligation at the end of the reporting period.

Investments and other financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under HKFRS 15 in accordance with the policies set out for "Revenue recognition" below.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest ("SPPI") on the principal amount outstanding. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Financial assets classified and measured at amortised cost are held within a business model with the objective to hold financial assets in order to collect contractual cash flows, while financial assets classified and measured at fair value through other comprehensive income are held within a business model with the objective of both holding to collect contractual cash flows and selling. Financial assets which are not held within the aforementioned business models are classified and measured at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Investments and other financial assets *(Continued)*

Subsequent measurement

The subsequent measurement of financial assets depends on their classification as follows:

Financial assets at amortised cost (debt instruments)

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired.

Financial assets designated at fair value through other comprehensive income (debt instruments)

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to the statement of profit or loss.

Financial assets designated at fair value through other comprehensive income (equity investments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under HKAS 32 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes derivative instruments and equity investments which the Group had not irrevocably elected to classify at fair value through other comprehensive income. Dividends on equity investments classified as financial assets at fair value through profit or loss are also recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Investments and other financial assets *(Continued)*

Subsequent measurement *(Continued)*

Financial assets at fair value through profit or loss (Continued)

A derivative embedded within a hybrid contract containing a financial asset host is not accounted for separately. The financial asset host together with the embedded derivative is required to be classified in its entirety as a financial asset at fair value through profit or loss.

Derecognition of financial assets

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

The Group recognises an allowance for expected credit losses ("ECLs") for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Impairment of financial assets *(Continued)*

General approach *(Continued)*

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

The Group considers a financial asset in default when contractual payments are 90 days past due in New Zealand and one year past due in the PRC. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Debt investments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables and contract assets which apply the simplified approach as detailed below.

Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs

Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs

Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs

Simplified approach

For trade receivables and contract assets that do not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

For trade receivables and contract assets that contain a significant financing component and lease receivables, the Group chooses as its accounting policy to adopt the simplified approach in calculating ECLs with policies as described above.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, an amount due to a related party, derivative financial instruments, notes payable and interest-bearing bank and other borrowings.

Subsequent measurement

The subsequent measurement of financial liabilities depends on their classification as follows:

Financial liabilities at amortised cost (loans and borrowings)

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss.

Financial guarantee contracts

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. A financial guarantee contract is recognised initially as a liability at its fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequent to initial recognition, the Group measures the financial guarantee contracts at the higher of: (i) the ECL allowance determined in accordance with the policy as set out in "Impairment of financial assets"; and (ii) the amount initially recognised less, when appropriate, the cumulative amount of income recognised.

Derecognition of financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in the statement of profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Derivative financial instruments and hedge accounting

Initial recognition and subsequent measurement

The Group uses derivative financial instruments, such as forward currency contracts and interest rate swaps, to hedge its foreign currency risk and interest rate risk, respectively. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

The fair value of commodity purchase contracts that meet the definition of a derivative as defined by HKFRS 9 is recognised in the statement of profit or loss as cost of sales. Commodity contracts that are entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item in accordance with the Group's expected purchase, sale or usage requirements are held at cost.

Any gains or losses arising from changes in fair value of derivatives are taken directly to the statement of profit or loss, except for the effective portion of cash flow hedges, which is recognised in other comprehensive income and later reclassified to profit or loss when the hedged item affects profit or loss.

For the purpose of hedge accounting, hedges are classified as:

- fair value hedges when hedging the exposure to changes in the fair value of a recognised asset or liability or an unrecognised firm commitment; or

- cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction, or a foreign currency risk in an unrecognised firm commitment; or

- hedges of a net investment in a foreign operation.

At the inception of a hedge relationship, the Group formally designates and documents the hedge relationship to which the Group wishes to apply hedge accounting, the risk management objective and its strategy for undertaking the hedge.

The documentation includes identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the Group will assess whether the hedging relationship meets the hedge effectiveness requirements (including the analysis of sources of hedge ineffectiveness and how the hedge ratio is determined). A hedging relationship qualifies for hedge accounting if it meets all of the following effectiveness requirements:

- There is "an economic relationship" between the hedged item and the hedging instrument.

- The effect of credit risk does not "dominate the value changes" that result from that economic relationship.

- The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Derivative financial instruments and hedge accounting *(Continued)*

Initial recognition and subsequent measurement *(Continued)*

Hedges which meet all the qualifying criteria for hedge accounting are accounted for as follows:

Cash flow hedges

The effective portion of the gain or loss on the hedging instrument is recognised directly in other comprehensive income in the cash flow hedge reserve, while any ineffective portion is recognised immediately in the statement of profit or loss. The cash flow hedge reserve is adjusted to the lower of the cumulative gain or loss on the hedging instrument and the cumulative change in fair value of the hedged item.

The amounts accumulated in other comprehensive income are accounted for, depending on the nature of the underlying hedged transaction. If the hedged transaction subsequently results in the recognition of a non-financial item, the amount accumulated in equity is removed from the separate component of equity and included in the initial cost or other carrying amount of the hedged asset or liability. This is not a reclassification adjustment and will not be recognised in other comprehensive income for the period. This also applies where the hedged forecast transaction of a non-financial asset or non-financial liability subsequently becomes a firm commitment to which fair value hedge accounting is applied.

For any other cash flow hedges, the amount accumulated in other comprehensive income is reclassified to the statement of profit or loss as a reclassification adjustment in the same period or periods during which the hedged cash flows affect the statement of profit or loss.

If cash flow hedge accounting is discontinued, the amount that has been accumulated in other comprehensive income must remain in accumulated other comprehensive income if the hedged future cash flows are still expected to occur. Otherwise, the amount will be immediately reclassified to the statement of profit or loss as a reclassification adjustment. After the discontinuation, once the hedged cash flow occurs, any amount remaining in accumulated other comprehensive income is accounted for depending on the nature of the underlying transaction as described above.

Fair value hedges

The change in the fair value of a hedging instrument is recognised in the statement of profit or loss as other expenses. The change in the fair value of the hedged item attributable to the risk hedged is recorded as a part of the carrying amount of the hedged item and is also recognised in the statement of profit or loss as other expenses.

For fair value hedges relating to items carried at amortised cost, the adjustment to carrying value is amortised through the statement of profit or loss over the remaining term of the hedge using the effective interest rate method. Effective interest rate amortisation may begin as soon as an adjustment exists and shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged. If the hedged item is derecognised, the unamortised fair value is recognised immediately in the statement of profit or loss.

When an unrecognised firm commitment is designated as a hedged item, the subsequent cumulative change in the fair value of the firm commitment attributable to the hedged risk is recognised as an asset or liability with a corresponding gain or loss recognised in the statement of profit or loss. The changes in the fair value of the hedging instrument are also recognised in the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Derivative financial instruments and hedge accounting *(Continued)*

Initial recognition and subsequent measurement *(Continued)*

Current versus non-current classification

Derivative instruments that are not designated as effective hedging instruments are classified as current or non-current or separated into current and non-current portions based on an assessment of the facts and circumstances (i.e., the underlying contracted cash flows).

- Where the Group expects to hold a derivative as an economic hedge (and does not apply hedge accounting) for a period beyond 12 months after the end of the reporting period, the derivative is classified as non-current (or separated into current and non-current portions) consistently with the classification of the underlying item.

- Embedded derivatives that are not closely related to the host contract are classified consistently with the cash flows of the host contract.

- Derivative instruments that are designated as, and are effective hedging instruments, are classified consistently with the classification of the underlying hedged item. The derivative instruments are separated into current portions and non-current portions only if a reliable allocation can be made.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the specific identification basis and, in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short-term highly liquid investments which are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

For the purpose of the consolidated statement of financial position, cash and cash equivalents comprise cash on hand and at banks, including term deposits, and assets similar in nature to cash, which are not restricted as to use.

Provisions

A provision is recognised when a present obligation (legal or constructive) has arisen as a result of a past event and it is probable that a future outflow of resources will be required to settle the obligation, provided that a reliable estimate can be made of the amount of the obligation.

When the effect of discounting is material, the amount recognised for a provision is the present value at the end of the reporting period of the future expenditures expected to be required to settle the obligation. The increase in the discounted present value amount arising from the passage of time is included in finance costs in the statement of profit or loss.

A contingent liability recognised in a business combination is initially measured at its fair value. Subsequently, it is measured at the higher of (a) the amount that would be recognised in accordance with the general policy for provisions above; and (b) the amount initially recognised less, when appropriate, the amount of income recognised in accordance with the policy for revenue recognition.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Preference shares

Preference shares issued by the Group contain no contractual obligation to deliver cash or another financial asset; or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Group. The Group classifies preference shares issued as an equity instrument. Fees, commissions and other transaction costs of preference share issuance are deducted from equity. The dividends on preference shares are recognised as profit distribution at the time of declaration.

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- when the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, and the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognised, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and

- in respect of deductible temporary differences associated with investments in subsidiaries, associates and joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

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

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Income tax *(Continued)*

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, for which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

Where the Group receives grants of non-monetary assets, the grants are recorded at the fair value of the non-monetary assets and released to the statement of profit or loss over the expected useful lives of the relevant assets by equal annual instalments.

Where the Group receives government loans granted with no or at a below-market rate of interest for the construction of a qualifying asset, the initial carrying amount of the government loans is determined using the effective interest rate method, as further explained in the accounting policy for "Financial liabilities" above. The benefit of the government loans granted with no or at a below-market rate of interest, which is the difference between the initial carrying value of the loans and the proceeds received, is treated as a government grant and released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments.

Revenue recognition

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Revenue recognition *(Continued)*

Revenue from contracts with customers *(Continued)*

When the contract contains a financing component which provides the customer with a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group with a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in HKFRS 15.

(a) Sale of goods

Revenue from the sale of goods is recognised at the point in time when control of the asset is transferred to the customers, generally on delivery of the by-products during the waste treatment process.

(b) Construction services

Revenue from the provision of construction services is recognised over time, using an input method to measure progress towards complete satisfaction of the service, because the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced. The input method recognises revenue based on the proportion of the actual costs incurred relative to the estimated total costs for satisfaction of the construction services.

Claims to customers are amounts that the Group seeks to collect from the customers as reimbursement of costs and margins for scope of works not included in the original construction contract. Claims are accounted for as variable consideration and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved. The Group uses the expected value method to estimate the amounts of claims because this method best predicts the amount of variable consideration to which the Group will be entitled.

(c) Waste management services

Revenue from waste management services is recognised at the point in time when services are rendered to the customers.

Revenue from other sources

Rental income is recognised on a time proportion basis over the lease terms.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Contract assets

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Contract liabilities

A contract liability is recognised when a payment is received or a payment is due (whichever is earlier) from a customer before the Group transfers the related goods or services. Contract liabilities are recognised as revenue when the Group performs under the contract (i.e., transfers control of the related goods or services to the customer).

Contract costs

Other than the costs which are capitalised as inventories, property, plant and equipment and intangible assets, costs incurred to fulfil a contract with a customer are capitalised as an asset if all of the following criteria are met:

(a) The costs relate directly to a contract or to an anticipated contract that the entity can specifically identify.

(b) The costs generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future.

(c) The costs are expected to be recovered.

The capitalised contract costs are amortised and charged to the statement of profit or loss on a systematic basis that is consistent with transfer to the customer of the goods or services to which the asset relates. Other contract costs are expensed as incurred.

Employee benefits

The Group operates a Mandatory Provident Fund Scheme ("MPF Scheme") for all qualifying employees in Hong Kong. The assets of the MPF Scheme are held separately from those of the Group, in funds under the control of trustees.

The employees of the subsidiaries in Mainland China are members of state-managed retirement benefit schemes operated by the PRC government. The relevant subsidiaries are required to make contributions to the state-managed retirement benefit schemes in the PRC based on certain percentages of the monthly salaries of their current employees to fund the benefits. The employees are entitled to retirement pension calculated with reference to their basic salaries on retirement and their length of service in accordance with the relevant government regulations. The PRC government is responsible for the pension liability to these retired staff. The only obligation of the Group with respect to the retirement benefit schemes is to make the specified contributions.

The employees of the subsidiaries in New Zealand are members of KiwiSaver schemes operated by the New Zealand government. The employees are allowed to join the schemes voluntarily by contributing a certain level of the gross pay on a monthly basis, while the employer would be compulsorily obligated to contribute to the schemes once the employees join. The New Zealand government is responsible for the pension liability to these retired staff. The only obligation of the Group with respect to the retirement benefit schemes is to make the specified contributions.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Employee benefits *(Continued)*

The Group also operates various defined contribution retirement benefit schemes for those employees other than in Hong Kong, Mainland China and New Zealand. Contributions are made based on the percentage of the employees' basic salaries and are charged to the consolidated statement of profit or loss as they become payable in accordance with the rules of these schemes. The assets of these schemes are held separately from those of the Group in various independently administered funds. The Group's employer contributions vest fully with the employees when contributed into the schemes.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, i.e., assets that necessarily take a substantial period of time to get ready for their intended use or sale, are capitalised as part of the cost of those assets. The capitalisation of such borrowing costs ceases when the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs capitalised. All other borrowing costs are expensed in the period in which they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

Dividends

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting. Proposed final dividends are disclosed in the notes to the consolidated financial statements.

Interim dividends are simultaneously proposed and declared, because the Company's memorandum and articles of association grant the directors the authority to declare interim dividends. Consequently, interim dividends are recognised immediately as a liability when they are proposed and declared.

Foreign currencies

These financial statements are presented in RMB and the Company's functional currency is United States dollars ("US$"). The presentation currency of RMB is in alignment with Beijing Capital (HK) and Beijing Capital Group. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss with the exception of monetary items that are designated as part of the hedge of the Group's net investment of a foreign operation. These are recognised in other comprehensive income until the net investment is disposed of, at which time the cumulative amount is reclassified to the statement of profit or loss. Tax charges and credits attributable to exchange differences on those monetary items are also recorded in other comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on changes in fair value of the item (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(Continued)*

Foreign currencies *(Continued)*

The functional currencies of certain non-PRC subsidiaries and joint ventures are currencies other than RMB. As at the end of the reporting period, the assets and liabilities of foreign operations are translated into RMB at the rates of exchange prevailing at the end of the reporting period and their statements of profit or loss are translated into RMB at the exchange rates that approximate to those prevailing at the dates of the transactions.

The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange fluctuation reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in the statement of profit or loss.

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on acquisition are treated as assets and liabilities of the foreign operation and translated at the closing rate.

For the purpose of the consolidated statement of cash flows, the cash flows of non-PRC subsidiaries are translated into RMB at the exchange rates prevailing at the dates of the cash flows. Frequently recurring cash flows of non-PRC subsidiaries which arise throughout the year are translated into RMB at the weighted average exchange rates for the year.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's consolidated financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements, apart from those involving estimations, which have the most significant effect on the amounts recognised in the consolidated financial statements:

Service concession arrangements

The Group has entered into build-operate-transfer ("BOT"), transfer-operate-transfer ("TOT") and build-operate-own ("BOO") arrangements in respect of its waste treatment and waste-to-energy projects. The Group concluded that all the BOT, TOT and BOO arrangements are service concession arrangements under HK(IFRIC)-Int 12, because the local government authorities control and regulate the services, and the Group must provide the relevant services with the infrastructure at a pre-determined service charge. In respect of BOT and TOT arrangements, upon expiry of service concession arrangements, the infrastructure has to be transferred to the local government authorities at nil consideration. Infrastructure for BOO arrangements is used in the service concession arrangements for its entire or substantially entire useful life.

Judgement is also involved in determining the fair value of the concession financial assets. Discount rates, estimates of future cash flows and other factors are used in the valuation process.

The Group seeks to collect claims from the customers as reimbursement of costs and margins for scope of works not included in the original construction contract, which give rise to variable consideration. The Group determined that the expected value method is the appropriate method to use in estimating the variable consideration for claims in construction services, given there is a wide range of possible outcomes which are subject to negotiations with the government authorities or their designators ("Grantor").

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(Continued)*

Judgements *(Continued)*

Service concession arrangements *(Continued)*

Before including any amount of variable consideration in the transaction price, the Group considers whether the amount of variable consideration is constrained. The Group determined that the estimates of variable consideration are not constrained based on its historical experience, current negotiations with the Grantor, profitability of the head contracts of the Grantor and the current economic conditions.

Tax provisions

Determining tax provisions involves judgement on the future tax treatment of certain transactions. The Group carefully evaluates tax implications of transactions, and tax provisions are set up accordingly. The tax treatment of such transactions is assessed periodically to take into account all the changes in the tax legislation and practices.

No deferred tax liabilities have been recognised for withholding taxes that would be payable on the unremitted earnings that are subject to withholding taxes of the Group's subsidiaries established in Mainland China. The directors determine that it is not probable that these subsidiaries will distribute such earnings in the foreseeable future.

Significant judgement in determining the lease term of contracts with renewal options

The Group has several lease contracts that include extension and termination options. The Group applies judgement in evaluating whether or not to exercise the option to renew or terminate the lease. That is, it considers all relevant factors that create an economic incentive for it to exercise either the renewal or termination. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate the lease (e.g., construction of significant leasehold improvements or significant customisation to the leased asset).

The Group includes the renewal period as part of the lease term for leases of some office buildings due to the significance of these assets to its operations. These leases have a non-cancellable period and there will be a significant negative effect on operation if a replacement is not readily available.

Estimation uncertainty

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

Impairment of goodwill and intangible assets with indefinite useful lives

The Group determines whether goodwill and intangible assets with indefinite useful lives are impaired at least on an annual basis. This requires an estimation of the value in use of the cash-generating units to which the goodwill and intangible assets with indefinite useful lives are allocated. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the cash-generating units and also to choose a suitable discount rate in order to calculate the present value of those cash flows. The impairment of goodwill recognised for the year ended 31 December 2021 was RMB6,766,000 (2020: nil). No impairment of intangible assets with indefinite useful lives was recognised for the years ended 31 December 2021 and 2020. Further details are given in note 15 and note 16.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(Continued)*

Estimation uncertainty *(Continued)*

Provision for expected credit losses on trade receivables, concession financial assets, contract assets and financial assets included in prepayments, other receivables and other assets

The Group uses a provision matrix to calculate ECLs for trade receivables and contract assets which are not derived from construction service under service concession arrangements. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by geography, product type, customer type and rating, and coverage by letters of credit and other forms of credit insurance).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. At each reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The Group assessed the credit exposures of financial assets included in prepayments, other receivables and other assets, and there has not been a significant increase in credit risk since initial recognition and the Group performed expected credit loss assessment for credit losses that result from default events that are possible within the next 12 months.

The assessment of the correlation among historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of a customer's actual default in the future. The information about the ECLs on the Group's trade receivables, concession financial assets, contract assets and other receivables is disclosed in note 25, note 21, note 22 and note 23 to the consolidated financial statements, respectively.

Impairment of non-financial assets (other than goodwill and intangible assets with indefinite useful lives)

The Group assesses whether there are any indicators of impairment for all non-financial assets (other than goodwill and intangible assets with indefinite useful lives) at the end of each reporting period. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. The calculation of the fair value less costs of disposal is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the asset. When value-in-use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and choose a suitable discount rate in order to calculate the present value of those cash flows. During the year ended 31 December 2021, impairment of construction in progress was provided for with an amount of approximately RMB26,632,000 (2020: nil), impairment of other intangible assets in relation to service concession arrangements was provided for with an amount of approximately RMB63,731,000 (2020: RMB83,218,000). Further detail are given in note 13 and note 16.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(Continued)*

Estimation uncertainty *(Continued)*

Percentage of completion of construction work

The Group recognises revenue according to the percentage of completion for individual contracts of construction work, which requires estimation to be made by management. The stage of completion is estimated by reference to the actual costs incurred over the total budgeted costs, and the corresponding contract revenue is also estimated by management. Due to the nature of the activity undertaken in construction contracts, the date at which the activity is entered into and the date at which the activity is completed usually fall into different accounting periods. Hence, the Group reviews and revises the estimates of both contract revenue and contract costs in the budget prepared for each contract as the contract progresses. Where the actual contract revenue is less than expected or actual contract costs are more than expected, an impairment loss may arise.

Current income tax and deferred income tax

The Group is subject to income taxes in numerous jurisdictions. Judgement is required to determine the provision for taxation. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. Where the final tax outcome of these matters is different from the amounts originally recorded, the differences will impact on the current income tax and deferred income tax provisions in the periods in which the differences arise.

Deferred tax assets relating to certain deductible temporary differences and unused tax losses are recognised as management considers it is probable that future taxable profit will be available against which the deductible temporary differences or unused tax losses can be utilised. The realisation of the deferred tax assets mainly depends on whether sufficient profits or taxable temporary differences will be available in the future. In cases where the actual future profits generated are less than expected, a material reversal of deferred tax assets may arise, which will be recognised in the statement of profit or loss for the period in which such a reversal takes place. The carrying value of deferred tax assets at 31 December 2021 was approximately RMB10,803,000 (2020: RMB15,448,000).

Estimated useful lives and residual values of fixed assets and other intangible assets

Property, plant and equipment and other intangible assets are stated at cost less subsequent accumulated depreciation or amortisation and accumulated impairment losses. The estimation of their useful lives impacts the level of annual depreciation or amortisation expenses recorded.

If there is any indication of impairment, determining the extent to which property, plant and equipment and other intangible assets are impaired requires an estimation of the value in use of cash-generating units ("CGU") to which they have been allocated. The value-in-use calculation requires the entity to estimate the future cash flows expected to arise from the CGU and a suitable discount rate in order to calculate the present value. As at 31 December 2021, the carrying amounts of property, plant and equipment and other intangible assets were RMB2,439,493,000 and RMB4,924,125,000 (2020: RMB2,604,229,000 and RMB3,276,255,000), respectively.

Provisions for site restoration

A provision for future landfill site restoration and aftercare costs is recognised when the activities giving rise to the need for site restoration and aftercare have commenced. Management estimates the present value of the future cash flows expected to be incurred, which increases in each period due to the passage of time. Any increase in the provision due to the change in present value is recognised in the statement of profit or loss as a time value adjustment. Management will re-evaluate the estimate at the end of each reporting period.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(Continued)*

Estimation uncertainty *(Continued)*

Provisions for site restoration *(Continued)*

Future landfill site restoration and aftercare costs provided for are initially capitalised in the statement of financial position. Any change in the provision for future landfill site restoration and aftercare costs arising from a change in estimate of those costs is also recognised in non-current assets in the statement of financial position. As at 31 December 2021, the carrying amount of provision for site restoration was RMB217,813,000 (2020: RMB254,498,000).

4. OPERATING SEGMENT INFORMATION

Management monitors the results of the Group's operating segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on reportable segment profit/loss, which is a measure of adjusted profit/loss before tax from operations. The adjusted profit/loss before tax from operations is measured consistently with the Group's profit before tax from operations.

The Group has two reportable segments, being (a) the waste treatment and waste-to-energy business in the PRC and (b) the waste treatment and waste-to-energy business in New Zealand.

Year ended 31 December 2021	Waste treatment and waste-to-energy business in the PRC *RMB'000*	Waste treatment and waste-to-energy business in New Zealand *RMB'000*	Total *RMB'000*
Segment revenue:			
Revenue from external customers	5,395,943	2,506,661	7,902,604
Revenue from operations			7,902,604
Segment results	755,126	105,731	860,857
Other segment information:			
Share of profits of joint ventures	–	54,553	54,553
Share of profits of associates	3,991	–	3,991
Impairment losses recognised in the statement of profit or loss	164,205	19,418	183,623
Depreciation and amortisation	298,800	213,379	512,179
Investments in joint ventures	–	401,708	401,708
Investments in associates	40,406	–	40,406
Capital expenditure (note)	96,874	302,537	399,411
31 December 2021			
Segment assets	19,117,788	7,055,451	26,173,239
Segment liabilities	13,654,533	4,802,085	18,456,618

4. OPERATING SEGMENT INFORMATION *(Continued)*

Year ended 31 December 2020	Waste treatment and waste-to-energy business in the PRC *RMB'000*	Waste treatment and waste-to-energy business in New Zealand *RMB'000*	Total *RMB'000*
Segment revenue:			
Revenue from external customers	5,387,406	2,259,253	7,646,659
Revenue from operations			7,646,659
Segment results	644,464	132,823	777,287
Other segment information:			
Share of profits of joint ventures	–	39,758	39,758
Share of losses of associates	(6,948)	–	(6,948)
Impairment losses recognised in the statement of profit or loss	88,573	6,320	94,893
Impairment losses reversed in the statement of profit or loss	(420)	–	(420)
Depreciation and amortisation	121,504	332,804	454,308
Investments in joint ventures	–	452,531	452,531
Investments in associates	97,753	–	97,753
Capital expenditure (note)	272,842	337,894	610,736
31 December 2020			
Segment assets	16,467,691	7,591,377	24,059,068
Segment liabilities	11,694,493	5,175,560	16,870,053

Note: Capital expenditure consists of additions to property, plant and equipment, including assets from the acquisition of a subsidiary.

Information about major customers

No revenue derived from an individual customer of the Group amounted to 10% or more of the Group's revenue.

5. REVENUE, OTHER INCOME AND GAINS

Revenue represents the proceeds, net of value-added tax and surcharges from the following revenue streams during the year.

An analysis of the Group's revenue, other income and gains for the year is as follows:

Revenue

	2021 *RMB'000*	2020 *RMB'000*
Revenue from contracts with customers	7,509,613	7,371,550
Effective interest income on concession financial assets	392,991	275,109
	7,902,604	7,646,659

(i) Disaggregated revenue from contracts with customers

Disaggregated revenue information for revenue from contracts with customers:

31 December 2021	The PRC *RMB'000*	New Zealand *RMB'000*	Total *RMB'000*
Types of goods or services			
Construction services under service concession arrangements	3,168,203	–	3,168,203
Operation services under service concession arrangements	1,006,158	–	1,006,158
Electronic appliance dismantling	459,032	–	459,032
Operation services not under service concession arrangements	64,723	2,500,759	2,565,482
Others	304,836	5,902	310,738
Total revenue from contracts with customers	5,002,952	2,506,661	7,509,613
Timing of revenue recognition			
Goods transferred at a point in time	582,913	107,274	690,187
Services transferred at a point in time	999,443	2,399,387	3,398,830
Services transferred over time	3,420,596	–	3,420,596
Total revenue from contracts with customers	5,002,952	2,506,661	7,509,613

5. REVENUE, OTHER INCOME AND GAINS *(Continued)*

Revenue *(Continued)*

(i) Disaggregated revenue from contracts with customers *(Continued)*

31 December 2020	The PRC *RMB'000*	New Zealand *RMB'000*	Total *RMB'000*
Types of goods or services			
Construction services under service concession arrangements	3,605,593	–	3,605,593
Operation services under service concession arrangements	724,192	–	724,192
Electronic appliance dismantling	444,791	–	444,791
Operation services not under service concession arrangements	30,130	2,259,055	2,289,185
Others	307,591	198	307,789
Total revenue from contracts with customers	5,112,297	2,259,253	7,371,550
Timing of revenue recognition			
Goods transferred at a point in time	491,438	74,953	566,391
Services transferred at a point in time	765,507	2,184,300	2,949,807
Services transferred over time	3,855,352	–	3,855,352
Total revenue from contracts with customers	5,112,297	2,259,253	7,371,550

Revenue recognised in the current reporting period that was included in the contract liabilities at the beginning of the reporting period was RMB132,390,000 (2020: RMB126,410,000).

(ii) Performance obligations

Information about the Group's performance obligations is summarised below:

Construction services under service concession arrangements

The performance obligation is satisfied over time as services are rendered and payment is generally along with the operating service rendered in the operating period according to the service concession arrangements.

Operation services under service concession arrangements

The performance obligation is satisfied when services are rendered and payment is generally due upon the completion of the operation services according to the service concession arrangements.

Electronic appliance dismantling

Revenue from electronic appliance dismantling is derived from two performance obligations: the sale of dismantled parts which is satisfied upon delivery and payment in advance is normally required; and the rendering of dismantling services to the PRC government which is satisfied over time as the services are rendered and payment is generally due around 4 years from the completion of dismantling. The Group has considered the effect of the significant financing component on the transaction price.

5. REVENUE, OTHER INCOME AND GAINS *(Continued)*

Revenue *(Continued)*

(ii) Performance obligations *(Continued)*

Operation services not under service concession arrangements

Revenue from operation services not under service concession arrangements is mainly derived from the following performance obligations: waste collection, landfill and technical services which are satisfied once the promised service is rendered to a customer; and recycling which is satisfied at the point in time when a promised good or service is transferred to a customer. Payment in advance for waste collection in New Zealand and technical service in the PRC is normally required and payment for landfill, technical services and recycling in New Zealand is generally due within 50 days according to the terms of agreements or due upon the transfer.

The amounts of transaction prices allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at 31 December are as follows:

	2021	2020
	RMB'000	*RMB'000*
Amounts expected to be recognised as revenue:		
Within one year	**3,139,009**	3,461,705
After one year	**28,298,210**	25,470,624
	31,437,219	28,932,329

The amounts of transaction prices allocated to the remaining performance obligations which are expected to be recognised as revenue within one year mainly relate to construction services. All the other amounts of transaction prices allocated to the remaining performance obligations which are expected to be recognised as revenue after one year mainly relate to operation services to be satisfied during the operation period according to service concession arrangements. The amounts disclosed above do not include variable consideration which is constrained.

Other income and gains

	2021	2020
	RMB'000	*RMB'000*
Bank interest income	**9,042**	7,432
Other interest income	**3,147**	31,383
Gain on disposal of items of property, plant and equipment	**3,041**	825
Gain on disposal of an associate	**5,401**	–
Gain on termination of service concession arrangements	**18,382**	–
Gain on step acquisition	**–**	7,381
Government grants	**49,580**	97,176
Reversal of impairment of prepayments, other receivables and other assets	**–**	420
Foreign exchange gains	**–**	9,871
Others	**1,732**	5,905
	90,325	160,393

6. PROFIT BEFORE TAX

The Group's profit before tax is arrived at after charging/(crediting):

	2021 *RMB'000*	2020 *RMB'000*
Cost of services rendered for service concession arrangements	**3,177,045**	3,624,423
Cost of other services provided	**1,874,954**	1,679,436
Cost of inventories sold	**453,268**	408,463
Depreciation*		
– Property, plant and equipment	**301,080**	278,951
– Right-of-use assets	**70,786**	53,008
Amortisation of other intangible assets*	**140,313**	122,349
Research and development costs	**29,344**	8,096
Lease payments not included in the measurement of lease liabilities*	**24,299**	41,942
Auditor's remuneration		
– Audit services	**4,295**	5,005
– Non-audit services	**2,238**	1,843
Employee benefit expense (excluding directors' emoluments (note 8)):		
Wages and salaries	**384,561**	334,381
Pension scheme contributions	**51,487**	26,933
Foreign exchange differences, net	**61,299**	(8,103)
Impairment of financial and contract assets, net:		
Impairment of trade receivables	**37,793**	11,675
Impairment/(reversal of impairment) of financial assets included in prepayments, other receivables and other assets	**11,406**	(420)
Impairment of concession financial assets and relevant contract assets	**7,262**	–
Written-down of assets classified as held for sale to fair value	**28,879**	–
Impairment of property, plant and equipment	**26,632**	–
Impairment of inventories	**1,154**	–
Impairment of goodwill	**6,766**	–
Impairment of other intangible assets	**63,731**	83,218
Gain on termination of a service concession arrangement	**(18,382)**	–
Gain on disposal of items of property, plant and equipment	**(3,041)**	(825)
Loss on disposal of a subsidiary	**7,550**	–
Loss on derivative financial instruments	**37,704**	16,821

* These items for the year are included in "Cost of sales" and "Administrative expenses" in the consolidated statement of profit or loss.

7. FINANCE COSTS

	Notes	2021 RMB'000	2020 RMB'000
Interest on bank and other borrowings		**440,958**	419,545
Interest on notes payable	34	**82,682**	127,428
Interest on corporate bonds	35	**36,985**	21,874
Interest on lease liabilities	14	**65,683**	55,890
Total interest		**626,308**	624,737
Less: Interest capitalised		**64,431**	78,839
		561,877	545,898
Other finance costs:			
Increase in discounted amounts of provisions arising from the passage of time	36	**556**	2,080
Others		**18,069**	6,735
		580,502	554,713

8. DIRECTORS' EMOLUMENTS

Directors' emoluments for the year, disclosed pursuant to the Listing Rules, section 383(1)(a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation, is as follows:

	2021 RMB'000	2020 RMB'000
Fees	**784**	840
Other emoluments:		
Salaries, allowances and benefits in kind	**4,889**	4,511
Pension scheme contributions	**–**	–
	4,889	4,511
	5,673	5,351

During the year, no payments were made by the Group to the directors of the Company as an inducement to join the Group or as compensation for loss of office (2020: nil).

8. DIRECTORS' EMOLUMENTS *(Continued)*

(a) Independent non-executive directors

The fees paid to independent non-executive directors during the year are as follows:

	2021	2020
	RMB'000	*RMB'000*
Mr. Pao Ping Wing	**261**	280
Mr. Cheng Kai Tai, Allen	**261**	280
Ms. Chen Yee Wah	**261**	280
	783	840

(b) Executive directors, non-executive directors and the chief executive

2021	**Fees**	**Salaries, allowances and benefits in kind**	**Equity-settled share option expense**	**Pension scheme contributions**	**Total**
	RMB'000	***RMB'000***	***RMB'000***	***RMB'000***	***RMB'000***
Mr. Cao Guoxian	**–**	**1,693**	**–**	**–**	**1,693**
Mr. Li Fujing	**–**	**1,693**	**–**	**–**	**1,693**
Mr. Xiao Yukun **	**–**	**1,504**	**–**	**–**	**1,504**
Ms. Hao Chunmei^^	**–**	**–**	**–**	**–**	**–**
Mr. Li Qingsong^	**–**	**–**	**–**	**–**	**–**
	–	**4,890**	**–**	**–**	**4,890**

2020	Fees	Salaries, allowances and benefits in kind	Equity-settled share option expense	Pension scheme contributions	Total
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*	*RMB'000*
Mr. Cao Guoxian	–	2,130	–	–	2,130
Mr. Li Fujing	–	819	–	–	819
Mr. Xiao Yukun **	–	507	–	–	507
Ms. Hao Chunmei^^	–	–	–	–	–
Mr. Cheng Jialin*	–	1,055	–	–	1,055
	–	4,511	–	–	4,511

8. DIRECTORS' EMOLUMENTS *(Continued)*

(b) Executive directors, non-executive directors and the chief executive *(Continued)*

* Mr. Cheng Jialin resigned as an executive director of the Company on 4 March 2020.

** Mr. Xiao Yukun was appointed as an executive director of the Company on 4 March 2020, and resigned on 26 August 2021.

^ Mr. Li Qingsong was appointed as an executive director and executive general manager of the Company on 26 August 2021.

^^ Ms. Hao Chunmei was redesignated as a non-executive director of the Company on 2 July 2021.

During the year ended 31 December 2021, 2 directors (2020: 1 director) waived an emolument of RMB390,000 (2020: RMB343,290).

9. FIVE HIGHEST PAID EMPLOYEES

In both years, none of the five highest paid employees were directors of the Company. Details of the emoluments for the year of the five (2020: five) highest paid employees are as follows:

	2021	2020
	RMB'000	*RMB'000*
Salaries, allowances and benefits in kind	**8,376**	8,728
Performance related bonuses	**1,454**	1,351
Pension scheme contributions	**121**	269
	9,951	10,348

The number of non-director highest paid employees whose emoluments fell within the following bands is as follows:

	Number of employees	
	2021	2020
HK$1,500,001 to HK$2,000,000	**–**	3
HK$2,000,001 to HK$2,500,000	**4**	1
HK$2,500,001 to HK$3,000,000	**1**	–
HK$3,000,001 to HK$3,500,000	**–**	–
HK$3,500,001 to HK$4,000,000	**–**	–
HK$4,000,001 to HK$4,500,000	**–**	1
	5	5

10. INCOME TAX

Hong Kong profits tax has been provided at the rate of 16.5% (2020: 16.5%) on the estimated assessable profits arising in Hong Kong during the year.

Withholding Hong Kong profits tax was calculated at 10% (2020: 10%) on the interest income recognised by a subsidiary in Hong Kong from a subsidiary in New Zealand.

Under the Law of the PRC Enterprise Income Tax and Implementation Regulation of the law, the tax rate of the PRC subsidiaries was 25% for both years. Thirty-nine (2020: Thirty-five) of the Group's subsidiaries operating in the PRC were eligible for certain tax benefits. Twenty-one (2020: Twenty-two) were exempted from PRC income taxes, whereas another sixteen (2020: nine) were entitled to a preferential tax of 12.5%, and another two (2020: four) were entitled to preferential tax rates of 5%, 7.5%, 10% and 15%, respectively, for the year.

New Zealand profits tax has been provided at the rate of 28% (2020: 28%) on the estimated assessable profits arising in New Zealand during the year.

Taxes on profits assessable elsewhere have been calculated at the rates of tax prevailing in the countries/jurisdictions in which the Group operates.

According to PRC tax regulations, from 1 January 2008 onwards, non-resident enterprises without an establishment or place of business in the PRC or which have an establishment or place of business but the relevant income is not effectively connected with the establishment or a place of business in the PRC, are subject to withholding tax at the rate of 10% on various types of passive income such as dividends derived from entities in the PRC. Distributions of the pre-2008 earnings are exempted from the above-mentioned withholding tax. At 31 December 2021, no deferred tax liabilities have been recognised for withholding taxes that would be payable on the unremitted earnings that are subject to withholding taxes of the Group's subsidiaries established in the PRC (2020: nil). In the opinion of the directors, it is not probable that the Group's PRC subsidiaries will distribute profits in the foreseeable future. The aggregate amount of temporary differences associated with investments in subsidiaries in Mainland China for which deferred tax liabilities have not been recognised totalled approximately RMB2,443,016,000 (2020: RMB1,575,869,000).

	2021 ***RMB'000***	2020 *RMB'000*
Current – Hong Kong		
Charge for the year	**26,222**	25,990
Current – the PRC		
Charge for the year	**120,614**	135,257
Underprovision in prior years	**–**	1,109
Current – New Zealand		
Charge for the year	**8,553**	22,193
Underprovision in prior years	**–**	1,612
Deferred (note 37)	**132,329**	95,204
Total tax charge for the year	**287,718**	281,365

10. INCOME TAX *(Continued)*

A reconciliation of the tax expense applicable to profit before tax at the statutory rates for the jurisdictions in which the Company and the majority of its subsidiaries are domiciled to the tax expense at the effective tax rates, and a reconciliation of the applicable rates (i.e., the statutory tax rates) to the effective tax rates, are as follows:

	Hong Kong		Mainland China		New Zealand		Total	
	RMB'000	*%*	*RMB'000*	*%*	*RMB'000*	*%*	*RMB'000*	*%*
2021								
Profit before tax	**(29,587)**		**931,736**		**(41,292)**		**860,857**	
Tax at the statutory tax rate	**(4,882)**	**16.5**	**232,934**	**25.0**	**(11,562)**	**28.0**	**216,490**	**25.1**
Tax holiday or lower tax rates enacted by local authorities	**–**	**–**	**(42,770)**	**(4.6)**	**–**	**–**	**(42,770)**	**(5.0)**
Effect of withholding tax at 10% on the interest income from the Group's New Zealand subsidiaries	**26,222**	**(88.6)**	**–**	**–**	**–**	**–**	**26,222**	**3.0**
Expenses not deductible for tax	**28,796**	**(97.3)**	**17,267**	**1.9**	**15,549**	**(37.7)**	**61,612**	**7.2**
Income not subject to tax	**(53,055)**	**179.3**	**–**	**–**	**–**	**–**	**(53,055)**	**(6.2)**
Utilisation of tax losses not recognised in prior years	**–**	**–**	**(14,468)**	**(1.6)**	**–**	**–**	**(14,468)**	**(1.7)**
Profit attributable to joint ventures and associates*	**–**	**–**	**(998)**	**(0.1)**	**(15,275)**	**37.0**	**(16,273)**	**(1.9)**
Tax losses not recognised	**29,141**	**(98.5)**	**80,819**	**8.7**	**–**	**–**	**109,960**	**12.8**
Tax charge at the Group's effective rate	**26,222**	**(88.6)**	**272,784**	**29.3**	**(11,288)**	**27.3**	**287,718**	**33.4**
2020								
Profit before tax	(56,511)		852,755		(18,957)		777,287	
Tax at the statutory tax rate	(9,324)	16.5	213,189	25.0	(5,308)	28.0	198,557	25.5
Tax holiday or lower tax rates enacted by local authorities	–	–	(24,282)	(2.8)	–	–	(24,282)	(3.1)
Effect of withholding tax at 10% on the interest income from the Group's New Zealand subsidiaries	25,989	(46.0)	–	–	–	–	25,989	3.3
Expenses not deductible for tax	23,392	(41.4)	25,402	3.0	5,035	(26.6)	53,829	6.9
Income not subject to tax	(48,435)	85.7	–	–	–	–	(48,435)	(6.2)
Utilisation of tax losses not recognised in prior years	–	–	(24,758)	(2.9)	–	–	(24,758)	(3.2)
Profit attributable to joint ventures and associates*	–	–	(108)	(0.1)	(11,132)	58.7	(11,240)	(1.4)
Tax losses not recognised	34,368	(60.8)	74,616	8.7	–	–	108,984	14.0
Underprovision in prior years	–	–	1,109	0.0	1,612	(8.5)	2,721	0.4
Tax charge at the Group's effective rate	25,990	(46.0)	265,168	31.0	(9,793)	51.6	281,365	36.2

* The share of tax attributable to joint ventures and associates amounting to RMB22,545,220 (2020: RMB15,461,000) is included in "Share of profits of joint ventures" and "Share of profits of associates" in the consolidated statement of profit or loss.

11. DIVIDENDS

No dividend was paid or proposed by the Company during 2021, nor has any dividend been proposed by the Company since the end of the reporting period (2020: nil).

12. EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic earnings per share amount is based on the profit for the year attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 14,294,733,167 (2020: 14,294,733,167) in issue during the year, as adjusted to reflect the rights issue during the year.

The Group had no potentially dilutive ordinary shares in issue during the years ended 31 December 2021 and 2020.

The calculation of basic earnings per share is based on:

	2021 ***RMB'000***	2020 *RMB'000*
Earnings		
Profit attributable to ordinary equity holders of the parent, used in the basic earnings per share calculation	**510,746**	465,041

	Number of shares	
	2021	2020
Shares		
Weighted average number of shares in issue during the year used in the basic earnings per share calculation	**14,294,733,167**	14,294,733,167

13. PROPERTY, PLANT AND EQUIPMENT

	Freehold land RMB'000	Landfill development RMB'000	Buildings RMB'000	Plant and machinery RMB'000	Motor vehicles RMB'000	Leasehold improvements RMB'000	Construction in progress RMB'000	Total RMB'000
31 December 2021								
At 31 December 2020 and at 1 January 2021								
Cost	179,238	593,791	281,139	1,278,868	711,861	124,296	708,767	3,877,960
Accumulated depreciation	–	(257,997)	(83,412)	(575,117)	(320,163)	(37,042)	–	(1,273,731)
Net carrying amount	179,238	335,794	197,727	703,751	391,698	87,254	708,767	2,604,229
At 1 January 2021, net of accumulated depreciation	179,238	335,794	197,727	703,751	391,698	87,254	708,767	2,604,229
Additions	–	(10,417)	3,167	23,831	14,620	1,690	365,849	398,740
Disposals	(2,132)	–	(616)	(1,429)	(1,872)	(19)	(2,371)	(8,439)
Acquisition of a subsidiary (note 42)	–	–	–	23	648	–	–	671
Reclassification to assets held for sale	(3,373)	–	(32,825)	(11,577)	(965)	(91)	(113)	(48,944)
Depreciation provided during the year	–	(51,054)	(16,230)	(140,398)	(86,605)	(6,793)	–	(301,080)
Impairment	–	–	–	–	–	–	(26,632)	(26,632)
Transfers	–	29,067	186,928	248,423	145,351	1,128	(629,603)	(18,706)
Exchange realignment	(14,274)	(25,531)	(3,394)	(44,805)	(33,699)	(6,652)	(31,991)	(160,346)
At 31 December 2021, net of accumulated depreciation	159,459	277,859	334,757	777,819	429,176	76,517	383,906	2,439,493
At 31 December 2021:								
Cost	159,459	563,130	399,647	1,383,925	773,414	114,206	410,538	3,804,319
Accumulated depreciation	–	(285,271)	(64,890)	(606,106)	(344,238)	(37,689)	–	(1,338,194)
Accumulated impairment	–	–	–	–	–	–	(26,632)	(26,632)
Net carrying amount	159,459	277,859	334,757	777,819	429,176	76,517	383,906	2,439,493
31 December 2020								
At 31 December 2019 and at 1 January 2020								
Cost	179,221	534,291	265,212	1,117,064	646,926	73,862	484,798	3,301,374
Accumulated depreciation	–	(214,768)	(72,377)	(452,778)	(263,740)	(25,019)	–	(1,028,682)
Net carrying amount	179,221	319,523	192,835	664,286	383,186	48,843	484,798	2,272,692
At 1 January 2020, net of accumulated depreciation	179,221	319,523	192,835	664,286	383,186	48,843	484,798	2,272,692
Additions	–	30,626	14,329	26,076	7,051	6,791	523,591	608,464
Disposals	–	–	(183)	(4,385)	(246)	(27)	–	(4,841)
Acquisition of a subsidiary	–	–	–	–	157	–	2,115	2,272
Depreciation provided during the year	–	(41,251)	(10,720)	(141,981)	(73,005)	(11,994)	–	(278,951)
Transfers	–	26,131	1,806	157,998	74,157	41,931	(302,023)	–
Exchange realignment	17	765	(340)	1,757	398	1,710	286	4,593
At 31 December 2020, net of accumulated depreciation	179,238	335,794	197,727	703,751	391,698	87,254	708,767	2,604,229
At 31 December 2020:								
Cost	179,238	593,791	281,139	1,278,868	711,861	124,296	708,767	3,877,960
Accumulated depreciation	–	(257,997)	(83,412)	(575,117)	(320,163)	(37,042)	–	(1,273,731)
Net carrying amount	179,238	335,794	197,727	703,751	391,698	87,254	708,767	2,604,229

13. PROPERTY, PLANT AND EQUIPMENT *(Continued)*

The Group has pledged buildings with a net book value of RMB17,584,000 (2020: RMB16,530,000) to secure the borrowings granted to the Group.

The impairment of the construction in progress is in relation to the discontinuance decision of the Sichuan Zhong Xin Environment Technology Limited（四川中欣環保科技有限公司）and Mianyang Lubo Lubricant Co., Ltd（綿陽路博潤滑油脂有限公司, "Mianyang Lubo"), which were both engaged in hazardous waste treatment. The recoverable amounts of the construction in progress for them were both zero as at 31 December 2021.

14. LEASES

The Group as a lessee

The Group has lease contracts for various items of buildings, plant and machinery and motor vehicles. Leases of buildings have lease terms between 1 and 51 years. Leases of plant and machinery generally have lease terms between 1 and 52 years, while motor vehicles generally have lease terms between 1 and 5 years. Other equipment and buildings generally have lease terms of 12 months or less and/or are individually of low value. Generally, the Group is restricted from assigning and subleasing the leased assets outside the Group. There is a lease contract that includes significant extension options which are further discussed below.

(a) Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during the year are as follows:

	Leasehold land* RMB'000	Buildings** RMB'000	Plant and machinery RMB'000	Motor vehicles RMB'000	Total RMB'000
As at 1 January 2020	103,089	1,222,877	846	16,376	1,343,188
Additions	13,461	124,389	–	4,558	142,408
Depreciation charge	(2,620)	(43,597)	(217)	(6,574)	(53,008)
Others	–	(5,071)	–	–	(5,071)
Exchange difference	–	3,565	(10)	(94)	3,461
As at 31 December 2020 and 1 January 2021	**113,930**	**1,302,163**	**619**	**14,266**	**1,430,978**
Additions	**–**	**333,861**	**–**	**6,264**	**340,125**
Depreciation charge	**(2,793)**	**(61,085)**	**(202)**	**(6,706)**	**(70,786)**
Reassessment of a lease term arising from a decision to modify the exercise the extension option	**–**	**(240,711)**	**–**	**–**	**(240,711)**
Reclassification to assets held for sale	**(40,333)**	**–**	**–**	**–**	**(40,333)**
Exchange difference	**–**	**(107,368)**	**(39)**	**(1,135)**	**(108,542)**
As at 31 December 2021	**70,804**	**1,226,860**	**378**	**12,689**	**1,310,731**

14. LEASES *(Continued)*

The Group as a lessee *(Continued)*

(a) *Right-of-use assets* *(Continued)*

* The amounts represent land use rights located in the PRC and are depreciated to profit or loss over the term of the relevant rights of 50 years. The Group has pledged leasehold land with a net book value of RMB37,537,000 (2020: RMB79,646,000) to secure the borrowings granted to the Group.

** Included in leased buildings is a property lease located in Auckland, New Zealand. The property serves as the national head office of BCG NZ Group. The property is purpose-built in order to facilitate the long-term needs of the business. The lease agreement has an initial, non-cancellable lease period of 25 years which commenced on 22 December 2019. Subsequently, the lease agreement includes one right of renewal of ten years followed by seven rights of renewals of eight years each. The lease term for this lease was reassessed as 51 years at the beginning of this year. The final expiry date is 21 December 2070.

(b) *Lease liabilities*

The carrying amount of lease liabilities and the movements during the year are as follows:

	2021 ***RMB'000***	2020 *RMB'000*
Carrying amount at 1 January	**1,365,132**	1,238,966
New leases	**340,125**	130,085
Accretion of interest recognised during the year	**65,683**	55,890
Payments	**(96,012)**	(60,273)
Reassessment of a lease term arising from a decision to modify the extension option	**(240,711)**	–
Exchange difference	**(114,511)**	464
Carrying amount at 31 December	**1,319,706**	1,365,132
Analysed into:		
Current portion	**75,471**	64,651
Non-current portion	**1,244,235**	1,300,481

The maturity analysis of lease liabilities is disclosed in note 51 to the consolidated financial statements.

14. LEASES *(Continued)*

The Group as a lessee *(Continued)*

(c) The amounts recognised in profit or loss in relation to leases are as follows:

	2021 *RMB'000*	2020 *RMB'000*
Interest on lease liabilities	**65,683**	55,890
Depreciation charge of right-of-use assets	**70,786**	53,008
Expense relating to short-term leases	**15,701**	34,176
Expense relating to leases of low-value assets	**6,759**	5,421
Variable lease payments not included in the measurement of lease liabilities	**1,839**	2,345
Total amount recognised in profit or loss	**160,768**	150,840

(d) The total cash outflow for leases is disclosed in note 44(c) to the consolidated financial statements.

15. GOODWILL

	RMB'000
Cost at 1 January 2020, net of accumulated impairment	2,086,384
Acquisition of a subsidiary	30,617
Exchange realignment	204
Cost and net carrying amount at 31 December 2020	2,117,205
At 31 December 2020:	
Cost	3,023,769
Accumulated impairment	(906,564)
Net carrying amount	2,117,205
Cost at 1 January 2021, net of accumulated impairment	**2,117,205**
Impairment during the year	**(6,766)**
Exchange realignment	**(168,646)**
Cost and net carrying amount at 31 December 2021	**1,941,793**
At 31 December 2021:	
Cost	**2,855,123**
Accumulated impairment	**(913,330)**
Net carrying amount	**1,941,793**

15. GOODWILL *(Continued)*

Impairment testing of goodwill

Goodwill acquired through business combinations is allocated to the following cash-generating units for impairment testing:

- BCG NZ Group, which principally engages in the waste treatment and waste-to-energy business in New Zealand;
- Zhejiang Zhuoshang Environmental Energy Company Limited (浙江卓尚環保能源有限公司, "Zhejiang Zhuoshang"), which principally engages in the recycling and waste treatment business in Mainland China; and
- Mianyang Lubo, which principally engages in the hazardous waste treatment business in Mainland China.
- Wuzhong Capital Solid Environment Technology Limited (吳忠首拓環境科技有限公司, "Wuzhong Shoutuo"), which principally engages in the hazardous waste treatment business in Mainland China.

BCG NZ Group

The recoverable amount of the cash-generating unit has been determined based on a value-in-use calculation using cash flow projections based on financial budgets covering a five-year period approved by senior management. The pre-tax discount rate applied to the cash flow projections is 7.08% (2020: 7.08%). The perpetual growth rate used to extrapolate the cash flows of the cash-generating unit beyond the five-year period is 2.5% (2020: 2.5%).

Zhejiang Zhuoshang

The recoverable amount of the cash-generating unit has been determined based on a value-in-use calculation using cash flow projections based on financial budgets covering the service concession period approved by senior management. The pre-tax discount rate applied to the cash flow projections is 13.5% (2020: 15%).

Wuzhong Shoutuo

The recoverable amount of the cash-generating unit has been determined based on a value-in-use calculation using cash flow projections based on financial budgets covering a fifteen-year period approved by senior management. The pre-tax discount rate applied to the cash flow projections is 14% (2020: 15.5%).

Sensitivity analysis on key assumptions is performed annually. In the opinion of the Company's directors, the Group is not aware of any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the cash-generating unit's carrying amount to exceed its recoverable amount.

Mianyang Lubo

The recoverable amount of the cash-generating unit has been determined based on fair value less costs of disposal based on the estimated disposal price considering the preliminary negotiation result. As the fair value less costs of disposal would be less than the carrying amount of the cash-generating unit, the carrying amount of goodwill related to Mianyang Lubo has been fully impaired.

15. GOODWILL *(Continued)*

Impairment testing of goodwill *(Continued)*

The carrying amount of goodwill allocated to each of the cash-generating units is as follows:

	2021	2020
	RMB'000	*RMB'000*
BCG NZ Group	**1,905,121**	2,073,767
Zhejiang Zhuoshang	**6,055**	6,055
Mianyang Lubo	**–**	6,766
Wuzhong Shoutuo	**30,617**	30,617
	1,941,793	2,117,205

Except Mianyang Lubo use fair value less costs of disposal to determine the recoverable amount as at 31 December 2021, assumptions were used in the value-in-use calculation of the cash-generating units for 31 December 2021 and 31 December 2020. The following describes each key assumption on which management has based its cash flow projections to undertake impairment testing of goodwill:

Future revenue growth rates – In respect of the revenue of BCG NZ, the future revenue growth rates are based on the projected volume and unit price of waste treatment in New Zealand, taking into consideration of pricing policy change. In respect of the revenue of Zhejiang Zhuoshang, the future revenue growth rates are based on the projected volume and unit price of waste treatment services as stipulated in the service concession arrangement. In respect of the revenue of Wuzhong Shoutuo, the future revenue growth rates are based on the projected volume and unit price of hazardous waste treatment services, taking into consideration the processing capacity.

Operating margins – The basis used to determine the value of the operating margins is the average gross margins achieved in the year immediately before the budget year, increased for expected efficiency improvements, and expected market development.

Discount rates – The discount rates used are before tax and reflect specific risks relating to the relevant units.

Perpetual growth rates – The Group determines the perpetual growth rates which shall not exceed the long-term average gross growth rates of the relevant markets in New Zealand and Mainland China.

The values assigned to the key assumptions on future revenue growth rates, operating margins, discount rates and perpetual growth rates are consistent with external information sources.

16. OTHER INTANGIBLE ASSETS

	Customer contracts RMB'000	Service concession arrangements RMB'000	Licenses and franchises RMB'000	Trade names and trademarks RMB'000	Software RMB'000	Total RMB'000
31 December 2021						
Cost at 1 January 2021, net of accumulated amortisation	86,363	1,972,735	408,678	734,907	73,572	3,276,255
Additions	–	2,130	–	–	2,539	4,669
Transfer from contract assets	–	1,987,369	–	–	–	1,987,369
Transfer from construction in progress	–	–	–	–	18,706	18,706
Amortisation provided during the year	(11,021)	(86,262)	(31,921)	–	(11,109)	(140,313)
Disposals	–	(38,065)	–	–	(92)	(38,157)
Disposal of a subsidiary (note 43)	–	(16,793)	–	–	–	(16,793)
Impairment during the year	–	(63,731)	–	–	–	(63,731)
Exchange realignment	(6,419)	–	(31,442)	(59,765)	(6,254)	(103,880)
At 31 December 2021	68,923	3,757,383	345,315	675,142	77,362	4,924,125
At 31 December 2021:						
Cost	144,604	4,076,695	573,365	675,142	118,884	5,588,690
Accumulated amortisation and impairment	(75,681)	(319,312)	(228,050)	–	(41,522)	(664,565)
Net carrying amount	68,923	3,757,383	345,315	675,142	77,362	4,924,125
31 December 2020						
Cost at 1 January 2020, net of accumulated amortisation	97,693	1,347,507	441,333	734,835	80,638	2,702,006
Additions	–	45,947	–	–	3,642	49,589
Transfer from contract assets	–	732,229	–	–	–	732,229
Amortisation provided during the year	(10,825)	(69,392)	(31,894)	–	(10,238)	(122,349)
Impairment during the year	–	(83,218)	–	–	–	(83,218)
Exchange realignment	(505)	(338)	(761)	72	(470)	(2,002)
At 31 December 2020	86,363	1,972,735	408,678	734,907	73,572	3,276,255
At 31 December 2020:						
Cost	157,405	2,159,715	622,701	734,907	107,989	3,782,717
Accumulated amortisation and impairment	(71,042)	(186,980)	(214,023)	–	(34,417)	(506,462)
Net carrying amount	86,363	1,972,735	408,678	734,907	73,572	3,276,255

16. OTHER INTANGIBLE ASSETS *(Continued)*

As at 31 December 2021, the major terms of the Group's significant intangible assets in relation to service concession arrangements are set out as follows:

Name of subsidiary as operator	Name of waste treatment and waste-to-energy plant	Location	Name of Grantor	Service concession period	Maximum daily capacity	Electricity generation	Balance as at 31 December 2021 *RMB'000*	Balance as at 31 December 2020 *RMB'000*
Xinxiang Capital Solid Environmental Energy Limited (新鄉市首創環境能源有限公司)*	Xinxiang Solid Waste Treatment Project (新鄉市生活垃圾處理服務項目)	Xinxiang, Henan	Xinxiang City Administration (新鄉市城市管理局)	25 years after obtaining the approval for commercial operation	1,500 tonnes	219 million kWh	353,557	309,960
Fuzhou Capital Haihuan Environment Technology Company Limited (福州首創海環環保科技有限公司)*	Fuzhou Hongmiaoling Kitchen Waste Treatment Plant (福州市紅廟嶺廚餘垃圾處理廠)	Fuzhou, Fujian	Fuzhou City Administration (福州市城市管理委員會)	30 years after obtaining the approval for commercial operation	800 tonnes	21 million kWh	307,683	–
Lushan Capital Biomass Energy Co., Ltd. (魯山首創生物質能源有限公司)	Lushan Biomass cogeneration Project (魯山縣生物質熱電聯產項目)	Lushan, Pingdingshan, Henan	Lushan Housing and Urban-Rural Construction Commission (魯山縣住房和城鄉建設局)	30 years after obtaining the approval for construction	600 tonnes	158 million kWh	273,031	–
Qixian Capital Biomass Energy Co., Ltd. (杞縣首創生物質能源有限公司)	Qixian Biomass straw incineration for power generation Project (杞縣生物質秸稈焚燒發電項目)	Qixian, Kaifeng, Henan	XQixian City Administration (杞縣城管局)	28 years after obtaining the approval for commercial operation	600 tonnes	192 million kWh	257,693	–
Zhejiang Zhuoshang Environmental Energy Company Limited (浙江卓尚環保能源有限公司)	Xiaoshan Kitchen Waste Treatment Plant (蕭山廚餘垃圾處理廠)	Hangzhou, Zhejiang	Xiaoshan District's Administration of Hangzhou City (杭州市蕭山區城區管理局)	30 years after obtaining the approval for operation	400 tonnes	14 million kWh	248,578	258,064
Yongji Huaxinda Clean Energy Co., Ltd. (永濟市華信達清潔能源有限公司)*	Yongji Solid Waste Incineration Power Generation Plant (永濟市生活垃圾焚燒發電廠)	Yongji, Shanxi	Yongji Housing and Urban-Rural Construction Commission (永濟市住房保障和城鄉建設管理局)	May 2014 to May 2044 (30 years)	600 tonnes	83 million kWh	246,003	–
Suichuan Capital Environmental Energy Co., Ltd. (遂川首創環保能源有限公司)*	Suichuan Solid Waste Incineration Power Generation Plant (遂川縣生活垃圾焚燒發電處理項目)	SuiChuan, Jian, Jiangxi	Suichuan Urban Management and Comprehensive Law Enforcement (遂川縣城市管理綜合執法局)	27 years after obtaining the approval for construction	600 tonnes	86 million kWh	205,540	–
Shenzhou Capital Environmental Energy Co., Ltd. (深州首創環保能源有限公司)*	Shenzhou Solid Waste Incineration Power Generation Plant PPP Project (深州市生活垃圾焚燒發電工程PPP項目)	Shenzhou, Hebei	Shenzhou Housing and Urban-Rural Construction Commission (深州市住房和城鄉建設局)	30 years after obtaining the approval for commercial operation	800 tonnes	96 million kWh	195,910	–
Duchang Capital Environment Energy Co., Ltd. (都昌首創環保能源有限公司)*	Duchang Solid Waste Incineration Power Generation Plant (都昌生活垃圾焚燒發電項目)	Duchang, Jiujiang, Jiangxi	Duchang People's Government (都昌縣人民政府)	26 years after obtaining the approval for construction	800 tonnes	96 million kWh	176,013	–
Jiangxi Ruijin Ai Si Environmental Electric Limited (江西瑞金愛思環保電力有限公司)*	Ruijin Solid Waste Incineration Power Generation Plant (瑞金市生活垃圾焚燒發電廠)	Ruijin, Jiangxi	Ruijin People's Government (瑞金市人民政府)	January 2019 to January 2048 (30 years)	800 tonnes	43 million kWh	174,942	170,624
Beijing Shoujian Environment Protection Company Limited (北京首建環保有限責任公司)	Beijing Construction Waste Treatment Project (北京朝陽區建築廢棄物資源化項目)	Beijing	Beijing Environmental and Hygiene Control Authority (北京朝陽區市政市容管理委員會)	15 years after obtaining the approval for commercial operation	3,370 tonnes	N/A	175,689	260,959
Lushan Capital Environment Energy Co., Ltd. (魯山首創環保能源有限公司)*	Lushan Solid Waste Incineration Power Generation Plant (魯山生活垃圾焚燒發電項目)	Lushan, Pingdingshan, Henan	Lushan Housing and Urban-Rural Construction Commission (魯山縣住房和城鄉建設局)	30 years after obtaining the approval for construction	600 tonnes	70 million kWh	169,698	–
Others							973,046	973,128
							3,757,383	1,972,735

* These subsidiaries, as operators, were paid for their construction services partly by financial assets and partly by intangible assets. Therefore, concession financial assets were also recognised for them. Other subsidiaries listed above were paid for their services by intangible assets.

16. OTHER INTANGIBLE ASSETS *(Continued)*

The intangible assets arising from the service concession arrangements are amortised over the period which commences from the date when the related plants are available for use to the end of the service concession period, using a straight-line method.

Revenue and gross margin recognised from construction services and operation services of the service concession arrangements are collectively disclosed in note 21.

The breakdown of the intangible assets with indefinite useful lives is as follows:

	BCG NZ Group	
	2021	2020
	RMB'000	*RMB'000*
Licenses and franchises	**122,504**	133,349
Trade names and trademarks	**675,142**	734,907
	797,646	868,256

The trade name of "Waste Management" and other trademarks and licenses issued by the local government to operate various transfer stations in New Zealand are expected to be used for the foreseeable future. In the opinion of the directors of the Company, they are capable of being renewed indefinitely at insignificant cost and are classified as intangible assets with indefinite useful lives by the Group in accordance with HKAS 38 Intangible Assets.

For the purposes of impairment testing, the carrying amounts of goodwill and the intangible assets with indefinite useful lives of BCG NZ Group are allocated to the individual cash-generating unit, i.e., BCG NZ Group. The key assumptions used in the impairment test of the intangible assets with indefinite useful lives are given in note 15.

Impairment testing of intangible assets in relation to service concession arrangements

The recoverable amount of intangible assets in relation to service concession arrangements of each cash-generating unit has been determined based on a value in use calculation using cash flow projections based on financial budgets covering its concession periods. The cash-generating unit impaired during the year is in relation to Beijing Shoujian Environment Protection Company Limited, and its recovery amount is RMB175,689,000. The pre-tax discount rate applied to the cash flow projections is 13.5%.

Assumptions were used in the value-in-use calculation of the cash-generating units. The following describes each key assumption on which management has based its cash flow projections to undertake impairment testing of intangible assets in relation to service concession arrangements:

Revenue – The bases used to determine the future earnings are historical sales and expected growth rates of the applicable market in relevant area agreed in the service concession arrangement.

Operating margins – Operating margins are based on the average gross margins achieved in past few years immediately before the budget year, increased for expected efficiency improvements, and expected market development.

16. OTHER INTANGIBLE ASSETS *(Continued)*

Impairment testing of intangible assets in relation to service concession arrangements *(Continued)*

Operating expenses – The bases used to determine the values assigned are the cost of raw materials or service consumption, staff costs, amortisation and other operating expenses. The value assigned to the key assumption reflects past experience and management's expected input to support the expected services provided in the future.

Discount rates – Discount rates reflect management's estimate of specific risks relating to the relevant units.

With regard to the assessment of values in use of related intangible assets of the respective cash-generating units, management believes that no reasonably possible change in any of the above key assumptions would cause the carrying amounts of property, plant and equipment of the relevant units to materially exceed their recoverable amounts.

17. INVESTMENTS IN JOINT VENTURES

	2021 ***RMB'000***	2020 *RMB'000*
Share of net assets	**250,425**	287,857
Goodwill on acquisition	**151,283**	164,674
	401,708	452,531

The Group's receivable and payable balances with the joint ventures are disclosed in note 47 to the consolidated financial statements.

Particulars of the Group's joint ventures are as follows:

Name	**Particulars of issued shares held**	**Place and date of incorporation**	**Percentage of ownership interest**	**Principal activities**
Midwest Disposals Limited ("Midwest Disposals")	NZ$1,300,000	New Zealand 18 August 2000	50%	Waste management
Pikes Point Transfer Station Limited ("Pikes Point Transfer Station")	NZ$2,685,000	New Zealand 24 March 1993	50%	Waste transfer station
Transwaste Canterbury Limited ("Transwaste")	NZ$16,000,000	New Zealand 31 March 1999	50%	Waste collection and landfill
Daniels Sharpsmart New Zealand Limited	NZ$200	New Zealand 4 November 2002	50%	Component cleaning

Transwaste, which is considered a material joint venture of the Group, is accounted for using the equity method.

17. INVESTMENTS IN JOINT VENTURES *(Continued)*

The following table illustrates the summarised financial information in respect of Transwaste adjusted for any differences in accounting policies and reconciled to the carrying amount in the consolidated financial statements:

	2021 *RMB'000*	2020 *RMB'000*
Cash and cash equivalents	**30,760**	76,833
Other current assets	**36,936**	29,765
Current assets	**67,696**	106,598
Non-current assets, excluding goodwill	**446,173**	528,258
Goodwill on acquisition of the joint venture	**112,606**	122,575
Current liabilities	**(146,957)**	(193,365)
Non-current liabilities	**(15,549)**	(12,483)
Net assets, excluding goodwill	**351,363**	429,008
Reconciliation to the Group's interest in the joint venture:		
Proportion of the Group's ownership	**50%**	50%
Group's share of net assets of the joint venture, excluding goodwill	**175,682**	214,504
Goodwill on acquisition	**112,606**	122,575
Carrying amount of the investment	**288,288**	337,079

Financial information of the Group's share of the joint ventures is as follows:

	2021	2020
Revenue	**104,250**	96,383
Interest income	**330**	648
Depreciation and amortisation	**(16,215)**	(15,755)
Interest expenses	**(360)**	(425)
Tax	**(11,465)**	(9,138)
Profit for the year	**30,792**	23,467
Other comprehensive income	**(26,172)**	(161)
Dividend received	**53,411**	27,577

17. INVESTMENTS IN JOINT VENTURES *(Continued)*

The following table illustrates the aggregate financial information of the Group's joint ventures that are not individually material:

	2021 *RMB'000*	2020 *RMB'000*
Share of the joint ventures' profit for the year	**23,761**	16,291
Share of the joint ventures' other comprehensive income	**(14,380)**	253
Share of the joint ventures' total comprehensive income	**9,381**	16,544
Aggregate carrying amount of the Group's investments in the joint ventures	**113,420**	115,452

18. INVESTMENT IN A JOINT OPERATION

Name	**Place of incorporation**	**Ownership interest attributable to the Group as at**		**Principal activity**
		31 December 2021	31 December 2020	
Waste Disposal Services	New Zealand	**50%**	50%	Waste collection and landfill

The Group has a 50% interest in Waste Disposal Services, an unincorporated joint operation with the Auckland City Council. According to the joint operation agreement, the Group accounts for its joint operation by including the share of revenues, expenses, assets and liabilities of Waste Disposal Services in its own financial statements. Waste Disposal Services operates a landfill and refuse station in South Auckland.

The Group's share of material assets and liabilities of Waste Disposal Services is as follows:

	2021 *RMB'000*	2020 *RMB'000*
Current assets	**21,589**	25,514
Non-current assets	**96,923**	95,093
Total assets	**118,512**	120,607
Current liabilities	**(7,721)**	(5,882)
Non-current liabilities	**(33,171)**	(39,954)
Total liabilities	**(40,892)**	(45,836)
Net assets shared by the Group	**77,620**	74,771

18. INVESTMENT IN A JOINT OPERATION *(Continued)*

	2021 *RMB'000*	2020 *RMB'000*
Share of the joint operation's revenue	**70,915**	46,956
Share of the joint operation's expenses	**(37,302)**	(26,405)
Share of the joint operation's profit before tax	**33,613**	20,551
Cash received	**29,673**	6,726

The Group's receivables due from and payables due to the other operator of Waste Disposal Services are disclosed in note 25 and note 29 to the consolidated financial statements, respectively.

19. INVESTMENTS IN ASSOCIATES

	2021 *RMB'000*	2020 *RMB'000*
Share of net assets	**40,406**	97,573

No loans from associates were included in the Group's current liabilities (2020: nil).

On 22 January 2021, the Group entered into a sale and purchase agreement with Guangdong Guangye Investment Group Co., Ltd. (廣東廣業投資集團有限公司), which is a state-owned enterprise managed by Guangdong Guangye Group Co., Ltd. under the State-owned Assets Supervision and Administration Commission of Guangdong Province, to dispose of its 46% interest in Shenzhen Guangye Environmental Recycling Energy Limited (深圳廣業環保再生能源有限公司, "SZ Guangye", a former material associate of the Group) and its amount due from the associate of RMB38,321,000, for cash considerations of RMB131,200,000 received in total. This transaction was completed in February 2021, leading to a gain of RMB5,401,000 to the Group.

Particulars of the remaining associates are as follows:

Name	**Particulars of issued shares held**	**Place of registration and business**	**Percentage of ownership interest attributable to the Group**	**Principal activities**
Beijing Lanjie Lide Environment Holding Limited (北京藍潔利德環境科技有限公司, "Beijing Lanjie")	RMB1,760,000	PRC/Mainland China	29	Provision of waste transportation services
Hebei Xiongan Pioneer Environmental Governance Limited (河北雄安首創環境治理有限公司)	RMB72,390,000	PRC/Mainland China	49	Eco-protection and environmental governance

20. EQUITY INVESTMENT DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

The investment was in relation to an equity investment in an unlisted company, Beijing Yiqing Biomax Green Energy Park Company Limited（北京市一清百瑪士綠色能源有限公司）. The fair value of the asset was RMB16,665,000 (31 December 2020: RMB17,399,000).

21. CONCESSION FINANCIAL ASSETS

	2021 ***RMB'000***	2020 *RMB'000*
Analysed for reporting purposes as:		
Current assets	**1,131,642**	805,902
Non-current assets	**5,796,419**	4,455,330
	6,928,061	5,261,232

Concession financial assets mainly represent the amounts of the costs incurred by the Group for the construction rendered under service concession arrangements of waste treatment and waste-to-energy plants in the PRC on a BOT, TOT or BOO basis, plus the attributable profits on the services provided, to the extent of the unconditional contractual right to receive cash or another financial asset from the Grantor for the construction services which have been completed.

The effective interest rates used in service concession arrangements ranged from 5.00% to 6.56% for the year ended 31 December 2021.

Service concession arrangements with the Grantor in the PRC require the Group to operate and maintain the waste treatment and waste-to-energy plants at a specified level of serviceability on behalf of the relevant government authorities over the relevant service concession periods. The payment of concession financial assets is generally along with the operating service rendered in the operating period.

An impairment analysis is performed at each reporting date using the probability of default method to measure expected credit losses. The probabilities of default rates are estimated based on published credit information of the Grantors. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forward-looking credit risk information. As at 31 December 2021, the probability of default applied ranging from 0.08% to 2.03% and the loss given default was estimated to be 45%, which led to an impairment of RMB5,746,000 recognised during the year. The loss allowance was assessed to be limited as at 31 December 2020 in respect of the concession financial assets and relevant contract assets.

During the operation phase of the respective service concession periods, the Group will receive guaranteed waste treatment fees from the Grantor. In addition, for some service concession arrangements, the Group will receive fees arising from the electricity generated from waste treatment based on the guaranteed volumes after the commencement of the operation phase of the waste-to-energy plants. Concession financial assets are expected to be recovered along with and on condition of rendering operation services in the operating periods.

21. CONCESSION FINANCIAL ASSETS *(Continued)*

The Group recognised revenue from construction services of RMB3,168,203,000 (2020: RMB3,605,593,000) by reference to the stage of completion of the construction work and revenue from operation services of RMB1,006,158,000 (2020: RMB724,192,000) for all the service concession arrangements of the Group (note 5). The gross profits recognised from construction services amounted to RMB773,920,000 (2020: RMB581,849,000) and the gross profits recognised from operation services amounted to RMB305,850,000 (2020: RMB251,500,000) for all the service concession arrangements of the Group.

As at 31 December 2021, the major terms of the Group's significant service concession arrangements with guaranteed receipts are set out as follows:

Name of subsidiary as operator	Name of waste treatment and waste-to-energy plant	Location	Name of Grantor	Service concession period	Maximum daily capacity	Electricity generation	Balance as at 31 December 2021 *RMB'000*	Balance as at 31 December 2020 *RMB'000*
Huizhou Guanghui Energy Company Limited (惠州廣惠能源有限公司)	Huizhou Municipal Solid Waste Incineration Power Generation Plant (惠州市生活垃圾焚燒發電廠)	Luzhouzhen, Huicheng, Huizhou	Huizhou Environmental and Hygiene Control Authority (惠州市市容環境衛生管理局)	March 2018 to March 2047 (30 years)	1,600 tonnes	161 million kWh	1,204,896	1,228,366
Nanyang Capital Environment Technology Company Limited (the First Branch) (南陽首創環境科技有限公司第一分公司)	Solid Waste Incineration Power Generation Plant Project for Zhechuan, Xixia and Neixiang (淅川,西峽,內鄉三縣行政區域交界處合適位置共建生活垃圾焚燒發電項目)	Nanyang, Henan	Nanyang Housing and Urban-Rural Construction Commission (南陽市住房和城鄉建設委員會)	30 years after obtaining the approval for commercial operation	1,800 tonnes	114 million kWh	522,516	507,587
Nanchang Capital Environment Energy Co., Ltd. (南昌首創環保能源有限公司)	Nanchang Solid Waste Incineration Power Generation Plant (南昌市垃圾焚燒發電廠)	Quanling, Nanchang	Nanchang City Environment Administration (南昌市市環境管理局)	October 2016 to September 2041 (25 years)	1,200 tonnes	131 million kWh	488,966	555,326
Xinxiang Capital Solid Environmental Energy Limited (新鄉市首創環境能源有限公司)	Xinxiang Solid Waste Treatment Project (新鄉市生活垃圾處理服務項目)	Xinxiang, Henan	Xinxiang City Administration (新鄉市城市管理局)	25 years after obtaining the approval for commercial operation	1,500 tonnes	219 million kWh	467,012	468,722
Duyun Capital Environment Company Limited (都勻市首創環保有限公司)	Duyun Solid Waste Incineration Power Generation Plant (都勻市生活垃圾焚燒發電廠)	Duyun, Guizhou	Duyun People's Government (都勻市人民政府)	30 years after obtaining the approval for commercial operation	900 tonnes	64 million kWh	347,380	387,417
Qianjiang Capital Bolang Green Energy Limited (潛江首創博朗綠色能源有限公司)	Qianjiang Solid Waste Incineration Power Generation Project (潛江市生活垃圾焚燒發電項目)	Qianjiang, Hubei	Qianjiang City Administration (潛江市城市管理行政執法局)	April 2016 to April 2046	900 tonnes	83 million kWh	310,493	–
Zhengyang Capital Environmental Energy Company Limited (正陽首創環保能源有限公司)	Zhengyang Solid Waste Incineration Power Generation Project (正陽縣生活垃圾焚燒發電項目)	Zhengyang, Zhumadian, Henan	Zhengyang Urban Management and Comprehensive Law Enforcement (正陽縣城市管理綜合執法局)	30 years after obtaining the approval for commercial operation	600 tonnes	53 million kWh	299,731	183,630
Suixian Capital Environmental Energy Limited (睢縣首創環保能源有限公司)	Suixian Solid Waste Incineration Power Generation Project (睢縣生活垃圾焚燒發電項目)	Suixian, Henan	Suixian Urban Management and Law Enforcement (睢縣城市管理行政執法局)	30 years after obtaining the approval for commercial operation	600 tonnes	61 million kWh	269,627	276,348
Yutian Capital Environment Energy Co., Ltd. (玉田首創環保能源有限公司)	Yutian Solid Waste Incineration Power Generation Plant (玉田縣生活垃圾焚燒發電項目)	Yutian, Tangshan, Hebei	Yutian Housing and Urban-Rural Construction Commission (玉田縣住房和城鄉建設局)	30 years after obtaining the approval for construction	600 tonnes	46 million kWh	259,796	–
Duchang Capital Environment Energy Co., Ltd. 都昌首創環保能源有限公司	Duchang Solid Waste Incineration Power Generation Plant 都昌生活垃圾焚燒發電項目	Duchang, Jiujiang, Jiangxi	Duchang People's Government 都昌縣人民政府	26 years after obtaining the approval for construction	800 tonnes	96 million kWh	232,518	–
Others*							2,525,126	1,653,836
							6,928,061	5,261,232

* Others represent waste collection and transportation projects, incineration projects and kitchen waste concentration projects with insignificant concession financial assets.

22. CONTRACT ASSETS

	2021 *RMB'000*	2020 *RMB'000*
Contract assets arising from:		
Construction services	**2,777,197**	3,187,173
Electricity generation	**140,323**	42,493
Impairment	**(1,516)**	–
	2,916,004	3,229,666
Analysed into:		
Current assets	**208,820**	123,917
Non-current assets	**2,707,184**	3,105,749
	2,916,004	3,229,666

The Group entered into service concession arrangements in respect of the waste management and waste-to-energy business in the PRC. According to HKFRS 15, the receivables in relation to the construction services should be accounted for as contract assets.

Contract assets are initially recognised for revenue earned from the construction services as the receipt of consideration is conditional on successful completion of construction. Included in contract assets for construction services are retention receivables. Upon completion of construction and acceptance by the grantor, the amounts recognised as contract assets are reclassified to concession financial assets or other intangible assets for construction services under service concession arrangements and to trade receivables for other construction services. The increase in contract assets was the result of the increase in the provision of construction services during each of the years.

Contract assets arising from electricity generation mainly represented government on-grid tariff subsidies for certain projects which will be billed and settled upon the successful completion of government administrative procedures pursuant to notices jointly issued by the Ministry of Finance, the National Development and Reform Commission and the National Energy Administration. The expected timing of completion is within one year.

22. CONTRACT ASSETS *(Continued)*

The expected timing of completion of construction for contract assets as at 31 December is as follows:

	2021 *RMB'000*	2020 *RMB'000*
Within one year	**2,775,681**	2,837,334
After one year	**–**	349,839
Total contract assets	**2,775,681**	3,187,173

As at 31 December 2021, the probability of default applied ranging from 0.08% to 2.03% and the estimated loss given default of 45% were applied to determine the impairment of contract assets in relation to concession financial assets arising from construction services. The impairment of RMB1,516,000 was recognised during the year. The loss allowance was assessed to be limited as at 31 December 2020.

In the opinion of the directors, contract assets arising from electricity generation are with no impairment as the debtor is the Ministry of Finance of the People's Republic of China, which is with a high reputation, and loss from credit risk exposure has never occurred for these contract assets in history.

22. CONTRACT ASSETS *(Continued)*

As at 31 December 2021, the major terms of the Group's significant service concession arrangements under construction are set out as follows:

Name of subsidiary as operator	Name of waste treatment and waste-to-energy plant	Location	Name of Grantor	Service concession period	Maximum daily capacity	Electricity generation	Balance as at 31 December 2021 *RMB'000*	Balance as at 31 December 2020 *RMB'000*
Nanchang Capital Environment Energy Co., Ltd. (南昌首創環保能源有限公司)	Nanchang Solid Waste Incineration Power Generation Plant Phase II (南昌市垃圾焚燒發電廠－二期)	Quanling, Nanchang	Nanchang City Environment Administration (南昌市市環境管理局)	October 2022 to September 2049 (28 years)	1,200 tonnes	131 million kWh	**832,766**	41,559
Xiangxi Capital Environmental Energy Co., Ltd. (湘西自治州首創環保有限公司)	Jishou Solid Waste Incineration Power Generation Plant (吉首市生活垃圾焚燒發電處理項目)	Jishou, Xiangxi, Hunan	Jishou Public Utilities Administration (吉首市公用事業管理局)	28 years after obtaining the approval for construction	851 tonnes	120 million kWh	**500,323**	139,820
Zhumadian Tailai Capital Environmental Energy Co., Ltd. (駐馬店泰來環保能源有限公司)	Zhumadian Solid Waste Incineration Power Generation Plant (駐馬店生活垃圾焚燒發電處理項目)	Zhumadian, Henan	Zhumadian City Administration (駐馬店城市管理局)	30 years after obtaining the approval for construction	1,800 tonnes	242 million kWh	**474,949**	–
Qixian Capital Environmental Energy Company Limited (杞縣首創環保能源有限公司)	Qixian Solid Waste Incineration Power Generation Plant (杞縣生活垃圾焚燒發電項目)	Qixian, Kaifeng, Henan	Qixian Urban Management Bureau (杞縣城管局)	28 years after obtaining the approval for commercial operation	600 tonnes	83 million kWh	**295,438**	164,538
Tanghe Capital Environmental Energy Co., Ltd. (唐河首創環保能源有限公司)	Tanghe Solid Waste Incineration Power Generation Plant (唐河生活垃圾焚燒發電處理項目)	Tanghe, Nanyang, Henan	Tanghe Urban Management Bureau (唐河縣城市管理局)	30 years after obtaining the approval for construction	700 tonnes	96 million kWh	**232,277**	31,270
Yongji Huaxinda Clean Energy Co., Ltd. (永濟市華信達清潔能源有限公司)	Yongji Solid Waste Incineration Power Generation Plant (永濟市生活垃圾焚燒發電廠)	Yongji, Shanxi	Yongji Housing and Urban-Rural Construction Commission (永濟市住房保障和城鄉建設管理局)	May 2014 to May 2044 (30 years)	600 tonnes	83 million kWh	**–**	391,711
Fuzhou Capital Haihuan Environment Technology Company Limited (福州首創海環環保科技有限公司)	Fuzhou Hongmiaoling Kitchen Waste Treatment Plant (福州市紅廟嶺廚餘垃圾處理廠)	Fuzhou, Fujian	Fuzhou City Administration (福州市城市管理委員會)	30 years after obtaining the approval for commercial operation	800 tonnes	21 million kWh	**–**	372,021
Qianjiang Capital Bolang Green Energy Limited (潛江首創博朗綠色能源有限公司)	Qianjiang Solid Waste Incineration Power Generation Project (潛江市生活垃圾焚燒發電項目)	Qianjiang, Hubei	Qianjiang City Administration (潛江市城市管理行政執法局)	April 2016 to April 2046 (30 years)	900 tonnes	83 million kWh	**–**	332,365
Lushan Capital Environment Energy Company Limited (魯山首創環保能源有限公司)	Lushan Solid Waste Incineration Power Generation Plant (魯山縣生活垃圾焚燒發電項目)	Lushan, Pingdingshan, Henan	Lushan Housing and Urban-Rural Construction Commission (魯山縣住房和城鄉建設局)	30 years after obtaining the approval for construction	600 tonnes	70 million kWh	**–**	270,447
Shenzhou Capital Environmental Energy Co., Ltd. (深州首創環保能源有限公司)	Shenzhou Solid Waste Incineration Power Generation Plant PPP Project (深州市生活垃圾焚燒發電工程PPP項目)	Shenzhou, Hebei	Shenzhou Housing and Urban-Rural Construction Commission (深州市住房和城鄉建設局)	30 years after obtaining the approval for commercial operation	800 tonnes	96 million kWh	**–**	237,234
Suichuan Capital Environmental Energy Co., Ltd. (遂川首創環保能源有限公司)	Suichuan Solid Waste Incineration Power Generation Plant (遂川縣生活垃圾焚燒發電處理項目)	SuiChuan Jian, Jiangxi	Suichuan Urban Management and Comprehensive Law Enforcement (遂川縣城市管理綜合執法局)	27 years after obtaining the approval for construction	600 tonnes	86 million kWh	**–**	233,756
Yutian Capital Environment Energy Co., Ltd. (玉田首創環保能源有限公司)	Yutian Solid Waste Incineration Power Generation Plant (玉田縣生活垃圾焚燒發電項目)	Yutian, Tangshan, Hebei	Yutian Housing and Urban-Rural Construction Commission (玉田縣住房和城鄉建設局)	30 years after obtaining the approval for construction	600 tonnes	46 million kWh	**–**	206,956
Other							**439,928**	765,496
							2,775,681	3,187,173

23. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	Notes	2021 RMB'000	2020 RMB'000
Advances to suppliers		**183,027**	185,569
Value-added tax receivables		**672,988**	581,962
Loans receivable		**5,003**	7,738
Prepayments for emission units		**52,735**	42,651
Tender deposits		**188,803**	224,463
Deposit for tax review	(a)	**25,446**	–
Disposal receivable	(b)	**117,166**	–
Others		**72,028**	30,084
		1,317,196	1,072,467
Analysed into:			
Current assets		**1,157,724**	1,013,101
Non-current assets		**159,472**	59,366
		1,317,196	1,072,467

Notes:

(a) The amount was paid as a deposit in the form of a Tax Reserve Certificate for "Conditional Standover Order" to the Inland Revenue Department in Hong Kong by BCG NZ during this period for tax review in relation to BCG NZ's interest income derived from New Zealand. The tax inspection was completed with no exception in November 2021 and the deposit will be repaid soon.

(b) The amount was mainly in relation to the termination of a service concession arrangement, resulting in a receivable due from Shangrao Chengtou Energy Group Co., Ltd. (上饒市城投能源環保有限公司) amounting to RMB112,950,000.

24. INVENTORIES

	2021 RMB'000	2020 RMB'000
Raw materials	**44,719**	25,084
Contract cost	**–**	69,494
Finished goods	**21,722**	20,027
	66,441	114,605

25. TRADE RECEIVABLES

	2021 RMB'000	2020 RMB'000
Trade receivables	**1,668,803**	1,518,259
Impairment	**(30,157)**	(18,614)
	1,638,646	1,499,645
Analysed into:		
Current assets	**1,444,970**	1,132,849
Non-current assets	**193,676**	366,796
	1,638,646	1,499,645

Trade receivables, which are non-interest-bearing, are recognised and carried at the original invoiced amount less any loss allowance. The Group does not hold any collateral or other credit enhancements over its trade receivable balances.

An ageing analysis of the trade receivables as at the end of the reporting period, based on the invoice date (or date of revenue recognition, if earlier) and net of loss allowance, is as follows:

	2021 RMB'000	2020 RMB'000
0 to 90 days	**817,594**	540,743
91 to 180 days	**171,264**	200,450
Over 180 days	**649,788**	758,452
	1,638,646	1,499,645

The movements in the loss allowance for impairment of trade receivables are as follows:

	2021 RMB'000	2020 RMB'000
At beginning of year	**18,614**	14,280
Impairment losses (note 6)	**37,793**	11,675
Amount written off as uncollectible	**(25,798)**	(7,311)
Exchange realignment	**(452)**	(30)
	30,157	18,614

25. TRADE RECEIVABLES *(Continued)*

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on ageing or days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables except those due from the Ministry of Finance of the PRC are written off if the ageing is more than three years and are not subject to enforcement activity.

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

As at 31 December 2021, included in the Group's trade receivable balances were government dismantling tariffs provided by the PRC government for treatment of certain waste electric and electronic products with an aggregate carrying amount of approximately RMB261,126,000 (2020: RMB585,829,000). Included in the government dismantling tariffs are balances amounting to RMB231,567,000 (2020: RMB494,378,000) with ageing over 180 days. In the opinion of the directors of the Company, the expected credit losses are limited because the trade receivable balances are due from the Ministry of Finance of the PRC which is with a high reputation and no actual loss incurred in history.

Except for the trade receivables in relation to government dismantling tariffs disclosed above, the following table illustrates the credit risk exposure on the Group's remaining trade receivables:

		Past due			
As at 31 December 2021	**Current**	**Less than 1 month**	**1 to 3 months**	**Over 3 months**	**Total**
Expected credit loss rate	**0.35%**	**0.66%**	**0.88%**	**11.43%**	**2.14%**
Gross carrying amount (RMB'000)	**1,080,017**	**59,600**	**44,432**	**223,628**	**1,407,677**
Expected credit losses (RMB'000)	**3,821**	**392**	**390**	**25,554**	**30,157**

		Past due			
As at 31 December 2020	Current	Less than 1 month	1 to 3 months	Over 3 months	Total
Expected credit loss rate	0.82%	1.27%	8.26%	26.84%	2.00%
Gross carrying amount (RMB'000)	816,748	71,071	5,229	39,382	932,430
Expected credit losses (RMB'000)	6,709	902	432	10,571	18,614

Included in the Group's trade receivable balances are an amount due from the Group's joint ventures of RMB13,039,000 (2020: RMB13,706,000) and an amount due from the other operator of Waste Disposal Services of RMB531,000 (2020: RMB457,000), which are repayable on credit terms similar to those offered to the major customers of the Group.

26. AMOUNTS DUE FROM ASSOCIATES

The balance of RMB40,355,000 due from SZ Guangye as at 31 December 2020 was settled during this year.

The balance of RMB1,954,000 as at 31 December 2021 (31 December 2020: RMB8,335,000) represented the loans and interest receivables due from Beijing Lanjie.

27. CASH AND CASH EQUIVALENTS AND PLEDGED DEPOSITS

	Notes	2021 RMB'000	2020 RMB'000
Cash and bank balances		**1,710,491**	2,807,244
Time deposits		**10,000**	10,000
		1,720,491	2,817,244
Less:			
Time deposits with original maturity of more than three months		**–**	(5,000)
Pledged for a case of litigation		**–**	(7,698)
Pledged for a loan	(a)	**(3,026)**	(3,017)
Pledged for service concession arrangements	(b)	**(34,720)**	(39,477)
Cash and cash equivalents		**1,682,745**	2,762,052

Notes:

(a) The amount is pledged for a loan from China Clean Development Mechanism Fund (中國清潔發展機制基金, "CDM Fund").

(b) Pledged bank deposits for service concession arrangements represent the deposits required by the local governments for securing the progress of the BOT projects.

At the end of the reporting period, the cash and bank balances of the Group denominated in RMB amounted to RMB1,342,920,000 (2020: RMB1,498,366,000). The RMB is not freely convertible into other currencies, however, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short term time deposits are made for varying periods of between one day and three months depending on the immediate cash requirements of the Group, and earn interest at the respective short term time deposit rates. The bank balances and pledged deposits are deposited with creditworthy banks with no recent history of default.

28. ASSETS CLASSIFIED AS HELD FOR SALE

On 1 September 2021, the Group signed a disposal agreement with the non-controlling shareholder of Jiangsu Subei Waste Vehicles and Household Appliances Dismantling Recycling Limited (江蘇蘇北廢舊汽車家電拆解再生利用有限公司,"Jiangsu Subei"), to dispose of all interests held by the Group. Jiangsu Subei engages in the recycling and disassembly of waste electrical and electronic equipment. The Group has decided to cease its business because it plans to focus its resources on waste treatment infrastructure development business. The disposal of Jiangsu Subei is due to be completed before 31 December 2022. Jiangsu Subei was classified as a disposal group held for sale.

	2021 *RMB'000*	2020 *RMB'000*
Assets held for sale	**479,939**	–

In accordance with HKFRS 5, assets held for sale with a carrying amount of RMB508,818,000 were written down to their fair value of RMB479,939,000, less limited costs to sell, resulting in a loss of RMB28,879,000, which was included in profit or loss for the year. Accordingly, the related liabilities with a carry amount if RMB195,836,000 were reclassified as.

Besides, the Group also has assets classified as held for sale, including vehicles, trucks and tankers which are built for the purpose of waste management of BCG NZ and are sold to sub-contractors/owner-drivers operating on BCG NZ's behalf. These assets are expected to be sold within the next twelve months. As at 31 December 2021, the Group classified these assets as held-for-sale assets with the disposal price of RMB11,025,000 at the carrying amount of RMB8,948,000 (2020: with the disposal price of RMB7,625,000 at the carrying amount of RMB3,901,000). The Group also has freehold land to be sold in New Zealand with the disposal price of RMB12,345,000 according to the sale contract, at the carrying amount of RMB3,188,000 as at 31 December 2021.

29. TRADE PAYABLES

An ageing analysis of trade payables as at the end of the reporting period, based on the invoice date, is as follows:

	2021 *RMB'000*	2020 *RMB'000*
0 to 90 days	**1,263,743**	1,240,274
91 to 180 days	**16,166**	116,066
Over 180 days	**783,087**	496,889
	2,062,996	1,853,229

Included in the trade payables are amounts of RMB448,000 (2020: RMB97,000) and RMB2,800,000 (2020: RMB4,659,000) due to joint ventures and the other operator of Waste Disposal Services, respectively, with similar credit terms offered by them to their major customers.

The trade payables are non-interest-bearing and are normally settled on terms of 1 to 3 months.

30. OTHER PAYABLES AND ACCRUALS

	Notes	2021 RMB'000	2020 RMB'000
Contract liabilities	(a)	**102,395**	132,390
Accrued purchases		**161,873**	91,291
Interest payables	(b)	**40,767**	85,087
Amounts due to vendors of interests in subsidiaries/an associate		**71,725**	25,752
Amount due to a non-controlling shareholder of a subsidiary		**–**	22,564
Loan from a non-controlling shareholder of a subsidiary	(c)	**–**	10,535
Accrued professional fee		**3,878**	4,676
Other tax payable		**62,303**	55,603
Accrued payroll and severance payment		**82,796**	84,518
Others		**39,146**	17,332
		564,883	529,748

Notes:

(a) Contract liabilities mainly include short-term advances received to render the waste collection service in New Zealand and waste treatment service in the PRC.

(b) The amounts mainly represent the interest payable related to corporate bonds, bank and other borrowings. In previous year, the amounts mainly represent the interest payable by BCG NZ to BCG Chinastar International Investment Limited ("BCG Chinastar") in relation to the other borrowing amounting to NZ$570,000,000 and interest payable related to the notes payable and corporate bonds.

(c) The amount represents the balance of a loan from the non-controlling shareholder of Yongji Huaxinda Clean Energy Co., Ltd. (永濟市華信達清潔能源有限公司).

Other payables are non-interest-bearing and have no fixed terms of repayment.

31. DEFERRED INCOME

The Group received government subsidies for the capital expenditures and expansions on the waste treatment and waste-to-energy plants. The waste treatment plants and waste-to-energy plants were either under commercial run or still under construction as at 31 December 2021. These government subsidies were recognised as deferred income and would be amortised over the concession period upon the commencement of commercial operations of the plants.

32. DERIVATIVE FINANCIAL INSTRUMENTS

	2021 Assets RMB'000	2021 Liabilities RMB'000	2020 Liabilities RMB'000
Electricity price swaps	1,766	–	25,305
Interest rate swaps	–	5,106	12,598
	1,766	5,106	37,903
Portion classified as non-current:			
Electricity price swaps	–	–	626
Interest rate swaps	–	–	12,598
Current portion:			
Electricity price swaps	1,766	–	24,679
Interest rate swaps	–	5,106	–

Cash flow hedge – Electricity price swaps

Electricity price swaps are designated as hedging instruments in cash flow hedges of forecast sales in electricity. These forecast transactions are highly probable, and the swaps are being used to hedge the electricity price exposure with a fixed price ranging from RMB302 per megawatt to RMB345 per megawatt with a notional amount of RMB1,712,000.

There is an economic relationship between the hedged item and the hedging instrument as the terms of the swaps match the terms of the expected highly probable forecast transactions. The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item and the quantity of the hedging instrument to hedge the quantity of hedged item. To measure the hedge effectiveness, the Group compares the changes in the fair value of the hedging instruments against the changes in fair value of the hedged items attributable to the hedged risks.

Hedge ineffectiveness can arise from changes to the forecasted amounts of cash flows of hedged items and hedging instruments.

Cash flow hedge – Interest rate swaps

At 31 December 2021, the Group had an interest rate swap agreement in place with a notional amount of HK$700 million whereby it receives interest at a variable annual rate based on HIBOR (HIBOR+1.4%) and pays interest at a fixed rate of 2.74% (1.34%+1.4%) on the notional amount. The swap is used to hedge the cash flow interest rate risk of the loan from The Hongkong and Shanghai Banking Corporation Limited with a maturity date of 20 November 2022.

There is an economic relationship between the hedged item and the hedging instrument as the terms of the interest rate swap match the terms of the floating rate loan (i.e., notional amount, maturity and payment). The Group has established a hedge ratio of 1:1 for the hedging relationships as the underlying risk of the interest rate swap is identical to that of the hedged risk component. To measure the hedge effectiveness, the Group compares the changes in the fair value of the hedging instrument against the changes in fair value of the hedged item attributable to the hedged risk.

32. DERIVATIVE FINANCIAL INSTRUMENTS *(Continued)*

Cash flow hedge – Interest rate swaps *(Continued)*

The hedge ineffectiveness can arise from:

- differences in the timing of cash flows of the hedged item and the hedging instrument
- the counterparties' credit risks differently impacting the fair value movements of the hedging instrument and the hedged item
- reduction or modification in the hedged item

The Group holds the following electricity price swaps and interest rate swap contracts:

	Maturity					
	Less than 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 to 2 years	Total
As at 31 December 2021						
Electricity price swaps						
(highly probable forecast sales)						
Notional amount (in RMB'000)	**1,241**	**246**	**225**	**–**	**–**	**1,712**
Average forward price (RMB)	**302 to 345**	**0 to 302**	**302**	**–**	**–**	
Interest rate swap contract						
(HK$700 million unsecured bank loan)						
Notional amount (in RMB'000)	**–**	**–**	**–**	**572,320**	**–**	**572,320**
Hedged rate				**1:1**		
As at 31 December 2020						
Electricity price swaps						
(highly probable forecast sales)						
Notional amount (in RMB'000)	12,740	14,344	14,220	10,442	2,086	53,832
Average forward price (RMB)	322 to 392	329 to 376	329 to 376	283 to 376	329 to 376	
Interest rate swap contract						
(HK$700 million unsecured bank loan)						
Notional amount (in RMB'000)	–	–	–	–	590,786	590,786
Hedged rate					1:1	

32. DERIVATIVE FINANCIAL INSTRUMENTS *(Continued)*

Cash flow hedge – Interest rate swaps *(Continued)*

The impacts of the hedging instruments on the statement of financial position are as follows:

	Notional amount *RMB'000*	Carrying amount *RMB'000*	Line item in the statement of financial position	Change in fair value used for measuring hedge ineffectiveness for the year *RMB'000*
As at 31 December 2021				
Electricity price swaps	**1,712**	**1,766**	**Derivative financial instruments (assets)**	**(12,388)**
Interest rate swap	**572,320**	**(5,106)**	**Derivative financial instruments (liabilities)**	**17**
As at 31 December 2020				
Electricity price swaps	53,832	(25,305)	Derivative financial instruments (liabilities)	(10,581)
Interest rate swap	590,786	(12,598)	Derivative financial instruments (liabilities)	(12,598)

The impacts of the hedged items on the statement of financial position are as follows:

	Change in fair value used for measuring hedge ineffectiveness for the year *RMB'000*	Cash flow hedge reserve *RMB'000*
As at 31 December 2021		
Highly probable forecast sales	**(12,388)**	**18,228**
HK$700 million unsecured bank loan	**17**	**7,493**
As at 31 December 2020		
Highly probable forecast sales	(10,102)	3,268
HK$700 million unsecured bank loan	(12,598)	(12,598)

32. DERIVATIVE FINANCIAL INSTRUMENTS *(Continued)*

Cash flow hedge – Interest rate swaps *(Continued)*

The effects of the cash flow hedge on the statement of profit or loss and the statement of comprehensive income are as follows:

	Total hedging gain/(loss) recognised in other comprehensive income			Hedge ineffectiveness recognised in profit or loss	Line item in the statement of profit or loss	Amount reclassified from other comprehensive income to profit or loss			Line item (gross amount) in the statement of profit or loss
	Gross amount	Tax effect	Total			Gross amount	Tax effect	Total	
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*		*RMB'000*	*RMB'000*	*RMB'000*	
As at 31 December 2021									
Highly probable forecast sales	**(12,388)**	**3,469**	**(8,919)**	**–**	**Other expenses**	**37,704**	**(10,557)**	**27,147**	**Other expenses**
HK$700 million unsecured bank loan	**17**	**–**	**17**	**–**	**Finance costs**	**7,475**	**–**	**7,475**	**Finance costs**
As at 31 December 2020									
Highly probable forecast sales	(10,102)	2,829	(7,273)	–	Other expenses	14,641	(4,100)	10,541	Other expenses
HK$700 million unsecured bank loan	(14,822)	–	(14,822)	–	Finance costs	2,224	–	2,224	Finance costs

Interest rate benchmark reform

Following the decision by global regulators to phase out the existing interest rate benchmarks and replace them with RFRs, the Group is evaluating the impact on its existing hedge relationships. The evaluation is performed by a team headed by the chief financial officer and progress updates are made to the audit committee twice a year for interim and annual financial reporting. The Group has adopted the temporary reliefs provided by the amendments to HKFRS 9, HKAS 39 and HKFRS 7 which enable the hedge accounting of the Group to continue during the period of uncertainty, which is before the replacement of an existing interest rate benchmark with an RFR.

The nominal amount of RMB572,320,000 and the maturity of the derivative in hedging relationship that may be affected by the interest rate benchmark reform, analysed by interest rate benchmarks. The derivative hedging instrument has the maturity within a year.

33. INTEREST-BEARING BANK AND OTHER BORROWINGS

	2021			2020		
	Effective interest rate (%)	Maturity	*RMB'000*	Effective interest rate (%)	Maturity	*RMB'000*
Current						
Bank loans – secured	**3.85**	**2022**	**20,000**	4.35-4.57	2021	27,950
Bank loans – unsecured	**1.45-5.00**	**2022**	**922,132**	1.29-4.35	2021	790,050
Current portion of long term						
bank loans – secured	**1.52-5.15**	**2022**	**264,810**	4.20-5.15	2021	223,397
bank loans – unsecured	**1.37-1.68**	**2022**	**580,412**	1.37-2.61	2021	7,266
other loans – secured	**3.46-6.15**	**2022**	**241,732**	4.89-6.15	2021	134,391
other loans – unsecured	**4.00**	**2022**	**1,930,940**	5.50	2021	2,677,118
			3,960,026			3,860,172
Non-current						
Other secured bank loans	**1.52-5.15**	**2023-2038**	**6,317,784**	4.20-5.15	2023-2038	2,903,090
Other unsecured bank loans	**1.37-4.10**	**2022-2036**	**404,683**	1.37-3.93	2022-2036	712,272
Other loans – secured	**3.46-6.15**	**2023-2029**	**931,131**	3.46-6.15	2023-2026	1,124,612
Other loans – unsecured	**1.20-3.56**	**2024-2031**	**117,000**	1.20-3.56	2024-2031	117,000
			7,770,598			4,856,974
			11,730,624			8,717,146

	2021 *RMB'000*	2020 *RMB'000*
Analysed into:		
Bank loans and overdrafts repayable:		
Within one year or on demand	**1,787,355**	1,048,663
In the second year	**358,272**	870,453
In the third to fifth years, inclusive	**3,325,594**	1,014,508
Beyond five years	**3,038,600**	1,730,401
	8,509,821	4,664,025
Other borrowings repayable:		
Within one year	**2,172,672**	2,811,509
In the second year	**743,700**	235,653
In the third to fifth years, inclusive	**225,044**	922,924
Beyond five years	**79,387**	83,035
	3,220,803	4,053,121
	11,730,624	8,717,146

33. INTEREST-BEARING BANK AND OTHER BORROWINGS *(Continued)*

Notes:

(1) Bank loans of RMB234,130,000 as at 31 December 2021 (31 December 2020: RMB326,139,000) were guaranteed by the corporate guarantee of the Group.

(2) Bank loans of RMB942,022,000 as at 31 December 2021 (31 December 2020: RMB809,207,000) were secured by the service concession arrangements of the Group.

(3) Bank loans of RMB3,163,366,000 as at 31 December 2021 (31 December 2020: RMB1,658,514,000) were guaranteed by the corporate guarantee of the Group, and were secured by the service concession arrangements of the Group.

(4) A bank loan of RMB158,346,000 as at 31 December 2021 (31 December 2020: RMB173,346,000) was guaranteed by a corporate guarantee of the Group and Beijing Construction Engineering Group Co., Ltd (北京建工集團有限責任公司).

(5) Other loan of RMB69,000,000 (31 December 2020: RMB69,000,000) from CDM Fund as at 31 December 2021 was secured by the service concession arrangement in Fuzhou Capital Haihuan Environmental Technology Co., Ltd (福州首創海環環保科技有限公司).

(6) Bank loans of RMB202,327,000 as at 31 December 2021 (31 December 2020: RMB182,801,000) were guaranteed by a corporate guarantee of the Group, and were secured by the leasehold land and buildings with a carrying amount of RMB55,121,000 (31 December 2020: RMB96,176,000).

(7) Other loan of RMB47,990,000 from Beijing Guozi Financial leasing Co., Ltd. (北京國資融資租賃股份有限公司) as at 31 December 2021 (31 December 2020: RMB65,195,000) was secured by the service concession arrangement in Zhejiang Zhuoshang.

(8) Other loan of RMB155,873,000 from China Merchants Bank Financial Leasing Co., Ltd. (招銀金融租賃有限公司) as at 31 December 2021 (31 December 2020: RMB124,808,000) was guaranteed by a corporate guarantee of the Group, and was secured by the service concession arrangement in Duyun Capital Environment Company Limited (都勻市首創環保有限公司) and Renqiu Capital Environmental Treatment Co., Ltd (任丘首創環境治理有限公司).

(9) Other loan of RMB900,000,000 from Ping An Asset Management Co., Ltd. (平安資產管理有限責任公司) as at 31 December 2021 (31 December 2020: RMB1,000,000,000) was guaranteed by a corporate guarantee of Beijing Capital Group.

Included in other borrowings is a loan of NZ$319,000,000 (equivalent to approximately RMB1,376,405,000) from BCG Chinastar which is unsecured, bears interest at 4% per annum and has the maturity date on 31 May 2022. The borrowing was with amount of NZ$570,000,000 (equivalent to approximately RMB2,677,188,000) as at 31 December 2020.

Included in other borrowings is a loan of HK$686,000,000 (equivalent to approximately RMB554,535,000 from Beijing Capital (HK), which is unsecured, bears interest at 4% per annum and has the maturity date on 20 June 2022.

Included in bank loans is a loan of US$300,000,000 (equivalent to approximately RMB1,902,403,000) from the Financial Institutions (the financial institutions which include Bank of China (Hong Kong) Limited as agent, The Hongkong and Shanghai Banking Corporation Limited as coordinator, and other banks), which is secured by a corporate guarantee of Beijing Capital Eco-Environment Protection Group Co., Ltd. ("Beijing Capital Eco", formerly known as Beijing Capital Co., Ltd.), the intermediate holding company of the Company, bears interest at floating interest rate of LIBOR+1.40% per annum and has the maturity date on 31 August 2024.

As at 31 December 2021, the Group had undrawn borrowing facilities amounting to RMB3,286,253,000 (2020: RMB2,158,428,000).

As at 31 December 2021, the Group's bank and other loans of RMB3,242,713,000 were charged at fixed interest rates while RMB8,487,911,000 were charged at floating interest rates. The carrying amounts of the Group's current borrowings approximate to their fair values.

34. NOTES PAYABLE

On 11 September 2018 and 18 October 2018, the Group issued notes in aggregate principal amounts of US$250 million (equivalent to RMB1,715,800,000) and US$50 million (equivalent to RMB343,160,000) with a total discount of US$896,000 (equivalent to RMB6,147,000), respectively. These two tranches of notes form a single series which is listed on the Stock Exchange of Hong Kong Limited. The net proceeds after deducting the transaction costs of RMB7,371,000 were RMB2,045,442,000. These notes bear interest from 11 September 2018 at 5.625% per annum payable semi-annually in arrears on 11 March and 11 September of each year, beginning on 11 March 2019. These notes were redeemed at their principal amount on 10 September 2021.

After initial recognition, these notes are subsequently measured at amortised cost, using the effective interest rate method. Amortised cost is calculated by taking into account transaction costs that are an integral part of the effective interest rate.

The movements of notes payable during the year are as follows:

	2021 ***RMB'000***	2020 *RMB'000*
Liabilities as at 1 January	**1,950,197**	2,080,404
Interest reclassified in the previous year	**33,762**	35,899
Interest during the year	**82,682**	127,428
Interest paid during the year	**(104,185)**	(115,980)
Exchange realignment	**(52,236)**	(143,792)
	1,910,220	1,983,959
Less: Interest to be paid within one year	**–**	(33,762)
Repayment of the principle amount	**(1,910,220)**	–
Liabilities at 31 December	**–**	1,950,197

35. CORPORATE BONDS

On 29 May 2020, the Company issued its first branch corporate bonds in an aggregate principal amount of RMB1 billion at par value, which is listed on the Shanghai Stock Exchange. The net proceeds after deducting the transaction costs of RMB3,000,000 and the initially paid guarantee fee of RMB5,000,000 were RMB992,000,000. The bonds bear interest from 29 May 2020 at 3.1% per annum payable annually in arrears on 29 May of each year, and are guaranteed by Beijing Capital Group with a guarantee fee based on 0.5% per annum of the principal amount. The maturity date of the bonds is 29 May 2025, while the bonds provide an option for the Company to adjust the coupon rate and a put option to the investors at the end of the third year. The Company's option to adjust the coupon rate and the investors' option to resale are closely related to the economic characteristics and risks of the bonds. Furthermore, the Company expected that these bonds may be redeemed on 29 May 2023.

After initial recognition, these corporate bonds are subsequently measured at amortised cost, with terms of 3 years, using the effective interest rate method. Amortised cost is calculated by taking into account transaction costs that are an integral part of the effective interest rate.

35. CORPORATE BONDS *(Continued)*

The movements of corporate bonds during the year are as follows:

	2021 RMB'000	2020 RMB'000
Liabilities as at 1 January	**995,529**	–
Corporate bonds issued	**–**	992,000
Interest reclassified in the previous year	**18,345**	–
Interest during the year	**36,985**	21,874
Interest paid during the year	**(36,000)**	–
	1,014,859	1,013,874
Less: Interest to be paid within one year	**(18,345)**	(18,345)
Liabilities at 31 December	**996,514**	995,529

36. PROVISIONS

	2021 RMB'000	2020 RMB'000
At 1 January	**254,498**	223,538
Amounts utilised during the year	**(7,055)**	(3,169)
Reassessment of closure and post-closure provision	**(10,417)**	30,626
Effect of time value adjustment	**556**	2,080
Exchange realignment	**(19,769)**	1,423
At 31 December	**217,813**	254,498
Portion classified as current liabilities	**–**	–
Non-current portion	**217,813**	254,498

Provision is mostly made for the future costs of closing the Group's landfills in New Zealand at the end of their economic lives and for the associated post-closure costs, being the aftercare of the landfills for the prescribed periods. Estimated costs, adjusted for inflation, are built up on an item-by-item basis. The provision held, at the end of the reporting period, represents the net present value of the estimated future costs. A detailed reassessment of these costs and the anticipated remaining lives of the landfills is performed regularly.

37. DEFERRED TAX

The movements in deferred tax liabilities and assets during the year are as follows:

	Property, plant and equipment RMB'000	Inventories RMB'000	Other intangible assets RMB'000	Service concession arrangements* RMB'000	Provisions RMB'000	Right-of-use assets RMB'000	Lease liabilities RMB'000	Others RMB'000 (note)	Total RMB'000
At 1 January 2020	(115,757)	469	(373,925)	(246,762)	75,044	(342,878)	345,066	43,563	(615,180)
(Charged)/credited to profit or loss	(3,792)	–	11,839	(130,154)	6,554	(20,037)	32,879	7,507	(95,204)
Credited to other comprehensive income	–	–	–	–	–	–	–	(1,271)	(1,271)
Exchange realignment	(191)	–	507	–	318	(984)	1,593	254	1,497
At 31 December 2020	(119,740)	469	(361,579)	(376,916)	81,916	(363,899)	379,538	50,053	(710,158)
At 1 January 2021	**(119,740)**	**469**	**(361,579)**	**(376,916)**	**81,916**	**(363,899)**	**379,538**	**50,053**	**(710,158)**
(Charged)/credited to profit or loss	**(45)**	**794**	**11,963**	**(165,339)**	**–**	**(14,950)**	**24,991**	**10,257**	**(132,329)**
Credited to other comprehensive income	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**(7,088)**	**(7,088)**
Acquisition of a subsidiary (note 42)	**–**	**–**	**–**	**(28,195)**	**–**	**–**	**–**	**–**	**(28,195)**
Disposal of a subsidiary (note 43)	**–**	**–**	**–**	**5,079**	**–**	**–**	**–**	**–**	**5,079**
Reclassification to assets held for sale	**–**	**(903)**	**–**	**–**	**–**	**–**	**–**	**(10,611)**	**(11,514)**
Exchange realignment	**9,740**	**–**	**27,323**	**–**	**(6,662)**	**30,413**	**(32,235)**	**(2,375)**	**26,204**
At 31 December 2021	**(110,045)**	**360**	**(322,293)**	**(565,371)**	**75,254**	**(348,436)**	**372,294**	**40,236**	**(858,001)**

Note: Others included other payables and accruals, tax losses recognised, the discounting impact of trade receivables and derivative financial instruments.

* The deferred tax liabilities arising from "Service concession arrangements" were recognised in the taxable temporary difference between the revenue recognised under HK(IFRIC)-Int 12 and the revenue deemed taxable by relevant tax authorities.

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

	2021 ***RMB'000***	2020 *RMB'000*
Deferred tax assets	**10,803**	15,448
Deferred tax liabilities	**(868,804)**	(725,606)
	(858,001)	(710,158)

37. DEFERRED TAX *(Continued)*

The Group has tax losses of RMB613,038,000 arising in Mainland China (2020: RMB577,232,000) that will expire in one to five years for offsetting against future taxable profits. The Group has tax losses of RMB672,553,000 (2020: RMB522,732,000) arising in Hong Kong which can be carried forward indefinitely.

Deferred tax assets have not been recognised in respect of these losses as they have arisen in subsidiaries that have been loss-making for some time and it is not considered probable that taxable profits will available against which the tax losses can be utilised.

There are no income tax consequences attaching to the payment of dividends by the Company to its shareholders.

38. ISSUED CAPITAL

Shares

	2021	2020
	HK$'000	*HK$'000*
Authorised:		
33,683,800,000 (2020: 30,000,000,000) ordinary shares of HK$0.1 each	**3,368,380**	3,000,000

	2021	2020
	RMB'000	*RMB'000*
Issued and fully paid:		
14,294,733,167 ordinary shares of HK$0.1 each	**1,188,219**	1,188,219

39. PREFERENCE SHARES

The Company issued 11,000,000 preference shares to Beijing Capital (HK) on 22 December 2020, 4,705,200 preference shares to BCG Chinastar on 31 December 2020 and 611,000 preference shares to BCG Chinastar on 14 May 2021 ("Preference Shares"), which were fully paid and with a par value HK$100 each. They were classified as equity, resulting in credits to other equity instrument of approximately RMB1,372,568,000 (equivalent to HK$1,631,620,000) in total. The transaction cost of RMB4,874,000 was accounted for as a deduction from the equity.

The Preference Shares are perpetual and have no maturity date, which are not convertible into ordinary shares of the Company. Besides, the Preference Shares are not redeemable at the option of the holders and they also have no right to put back the shares to the Company.

However, the Company may, at its sole discretion in each case as permitted by and in accordance with applicable law, at any time upon giving not less than 30 nor more than 60 days' notice to the holders and related fiscal agent, redeem in whole or in part the Preference Shares, until all the Preference Shares have been redeemed. The redemption price for each Preference Share so redeemed shall be the aggregate of an amount equal to its par value plus any accumulated but unpaid dividends.

39. PREFERENCE SHARES *(Continued)*

Each Preference Share shall entitle its holder to receive dividends which have not been otherwise cancelled. Each dividend will be payable annually in arrears on 22 December in each year (the "Dividend Payment Date"). In respect of the period from the issue date to the First Call Date (22 December 2023), the dividend rate shall be the initial dividend rate of 4% per annum. Since the First Call Date, the dividend rate shall be the aggregate of: (i) the initial dividend rate of 4%; and (ii) a step-up margin of 3% per annum. However, the Company may, at its sole discretion, elect to defer (in whole or in part) any dividend which is otherwise scheduled to be paid on a Dividend Payment Date to the next Dividend Payment Date. The Company is not subject to any limit as to the number of times dividends and arrears of dividends can or shall be deferred, subject to the subscription agreement.

The holders of the Preference Shares ("Preference Shareholders") shall not be entitled to convene, attend or vote at any general meeting, other than when the business of the general meeting is to consider any resolution to (i) amend the Articles of Association of the Company to modify the rights and privileges attached to the Preference Shares, or (ii) adversely modify any of the special rights and privileges attached to the Preference Shares, or (iii) convene proceedings in respect of the Company for reconstruction, consolidation, amalgamation, merger, reorganisation or winding-up of the Company (each, a "Variation Resolution"), in which case the Preference Shareholders will be entitled to attend the general meeting and vote only upon such Variation Resolution, and the Preference Shareholders will be entitled to one vote in respect of each outstanding Preference Share and vote together with other preference shareholders as a separate class from the holders of the ordinary shares of the Company. The Preference Shares held by, or on behalf of, the Company shall have no voting rights.

40. RESERVES

The amounts of the Group's statutory reserve and capital reserve and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity on pages 53 to 54 of the consolidated financial statements.

41. A PARTLY-OWNED SUBSIDIARY WITH MATERIAL NON-CONTROLLING INTERESTS

Details of the Group's subsidiary that has material non-controlling interests are set out below:

	2021	2020
Percentage of equity interest held by non-controlling interests:		
BCG NZ Group	**49%**	49%

	2021 ***RMB'000***	2020 *RMB'000*
Profit for the year allocated to non-controlling interests:		
BCG NZ Group	**44,490**	57,147
Dividends paid to non-controlling interests of BCG NZ	**(35,460)**	(47,490)
Accumulated balances of non-controlling interests at the reporting date:		
BCG NZ Group	**1,104,149**	1,183,750

41. A PARTLY-OWNED SUBSIDIARY WITH MATERIAL NON-CONTROLLING INTERESTS

(Continued)

The following table illustrates the summarised financial information of BCG NZ Group. The amounts disclosed are before any inter-company eliminations:

	2021 *RMB'000*	2020 *RMB'000*
Revenue	**2,506,661**	2,259,252
Total expenses	**(1,746,437)**	(2,142,626)
Profit for the year	**90,797**	116,626
Total comprehensive income for the year	**(109,024)**	119,894
Current assets	**482,532**	446,821
Non-current assets	**6,572,920**	7,144,556
Current liabilities	**(3,048,169)**	(3,288,528)
Non-current liabilities	**(1,753,916)**	(1,887,032)
Net cash flows from operating activities	**548,958**	675,450
Net cash flows used in investing activities	**(224,551)**	(239,027)
Net cash flows used in financing activities	**(281,412)**	(346,671)
Net increase in cash and cash equivalents	**42,995**	89,752

42. BUSINESS COMBINATIONS

On 9 September 2021, Beijing Capital Environment Investment Limited (北京首創環境投資有限公司, "Capital Investment"), an indirectly wholly-owned subsidiary of the Company, acquired an 85.64% interest in Zhumadian ECO-WASTE Technology Co., Ltd. (駐馬店泰來環保能源有限公司, "Zhumadian ECO") from a third party. Zhumadian ECO is engaged in waste treatment and waste-to-energy generation services. The acquisition was made as part of the Group's strategy to expand its market share of waste treatment and waste-to-energy generation in Mainland China. The consideration for the acquisition is RMB238,100,000, with RMB187,480,000 paid by the end of this year.

42. BUSINESS COMBINATIONS *(Continued)*

The fair values of the identifiable assets acquired and liabilities at the dates of acquisition were as follows:

	Zhumadian ECO
	RMB'000
Cash and cash equivalents	4,010
Property, plant and equipment	672
Contract assets	265,336
Prepayments, deposits and other receivables	163,723
Trade payables	(37,344)
Other payables and accruals	(90,177)
Deferred tax liabilities	(28,195)
Total identifiable net assets at fair value	278,025
Non-controlling interests	(39,925)
Satisfied by:	
Cash	137,480
Cash consideration paid in the previous year	50,000
Cash consideration recorded in other payables	50,620

The fair value of other receivables as at the date of acquisition amounted to RMB160,100,000, which had been collected by the end of this year.

The Group incurred transaction costs of RMB260,000 for the acquisition. These transaction costs have been expensed and are included in administrative expenses.

An analysis of the cash flows in respect of acquisition was as follows:

	Zhumadian ECO
	RMB'000
Cash consideration	(137,480)
Cash and cash equivalents	4,010
Net outflow of cash and cash equivalents included in cash flows from investing activities	(133,470)
Transaction costs of the acquisition included in cash flows from operating activities	(260)
Total	(133,730)

Since the acquisition, Zhumadian ECO contributed RMB209,792,000 to the Group's revenue and RMB20,523,000 to the consolidated profit for the year ended 31 December 2021.

Had the combination taken place at the beginning of the year, the revenue of the Group and the profit of the Group for the year would have been RMB7,907,742,000 and RMB573,642,000, respectively.

43. DISPOSAL OF A SUBSIDIARY

On 27 July 2021, the Group signed a disposal agreement with a third party to dispose of all its interest in Jinzhong Capital Environment Resources Limited (晉中市首創環和環保能源有限公司, "Jinzhong Capital"). Jinzhong Capital engages in kitchen waste treatment. The disposal of Jinzhong Capital was completed on 28 December 2021. Details of this disposal are as below:

	2021 *RMB'000*
Net assets disposed of:	
Other intangible assets	16,793
Concession financial assets	36,883
Cash and cash equivalents	5,599
Trade receivables	824
Prepayments, deposits and other receivables	4,418
Inventories	197
Trade payables	(4,771)
Other payables and accruals	(32,174)
Deferred income	(5,640)
Deferred tax liabilities	(5,079)
	17,050
Loss on disposal of a subsidiary (note 6)	(7,550)
Satisfied by:	
Cash	4,500
Cash consideration recorded in other receivables	5,000

An analysis of the net inflow of cash and cash equivalents in respect of the disposal of a subsidiary is as follows:

	2021 *RMB'000*
Cash consideration	4,500
Cash and bank balances disposed of	(5,599)
Net inflow of cash and cash equivalents in respect of the disposal of a subsidiary	(1,099)

44. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

(a) Major non-cash transaction

During the year, decreases of property, plant and equipment amounting to RMB16,535,000 (2020 additions: RMB30,626,000) are due to the reassessment of closure and post-closure provision (note 36), which have no cash flow impact on the Group. Besides, the Group had non-cash changes, including addition and change due to reassessments, to right-of-use assets and lease liabilities of RMB340,125,000 (2020: RMB128,947,000) and RMB340,125,000 (2020: RMB130,085,000), respectively, in respect of lease arrangements.

(b) Changes in liabilities arising from financing activities

2021	**Bank and other borrowings** *RMB'000*	**Interest payables** *RMB'000*	**Lease liabilities** *RMB'000*
At 1 January 2021	**8,717,146**	**85,087**	**1,365,132**
Changes from financing cash flows	**3,307,672**	**(610,870)**	**(96,012)**
New leases	**–**	**–**	**340,125**
Reassessment and revision of lease terms	**–**	**–**	**(240,711)**
Reclassification to assets held for sale	**(6,000)**		
Foreign exchange movement	**(234,194)**	**(12,701)**	**(114,511)**
Interest capitalised	**–**	**64,431**	**–**
Interest expense	**–**	**514,879**	**65,683**
At 31 December 2021	**11,780,624**	**40,826**	**1,319,706**

2020	Bank and other borrowings *RMB'000*	Interest payables *RMB'000*	Lease liabilities *RMB'000*
At 1 January 2020	7,330,823	62,789	1,238,966
Changes from financing cash flows	1,386,062	(503,738)	(60,273)
New leases	–	–	130,085
Foreign exchange movement	261	(51,626)	464
Interest capitalised	–	78,839	–
Interest expense	–	498,823	55,890
At 31 December 2020	8,717,146	85,087	1,365,132

44. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS *(Continued)*

(c) Total cash outflow for leases

The total cash outflow for leases included in the statement of cash flows is as follows:

	2021	2020
	RMB'000	*RMB'000*
Within operating activities	**(24,299)**	(41,942)
Within financing activities	**(96,012)**	(60,273)
	(120,311)	(102,215)

45. CONTINGENT LIABILITIES

At the end of the reporting period, contingent liabilities not provided for in the consolidated financial statements are as follows:

	2021	2020
	RMB'000	*RMB'000*
Guarantees given to the government in connection with continuous operation of landfills (note)	**231,888**	252,279
Guarantees given to the government in connection with fulfilling the waste collection contracts and the other activities (note)	**110,000**	124,928
	341,888	377,207

Notes: Guarantees given under the agreements were entered into with the New Zealand government authorities on the continuous operation of the landfills or for meeting the required operational standards. The amounts of the guarantees were determined based on the terms of the agreements signed by the subsidiary of the Group in New Zealand and the New Zealand government authorities. In the opinion of the directors, the entity will fulfil its responsibilities in relation to the continuous operation of the landfills and meeting the required operational standards, and therefore, there is low risk of the claims made against the Group under the guarantees.

The Group also provided performance guarantees with a total amount of RMB204,605,000 to the Grantors in connection with the construction and operation services provided according to the service concession arrangements.

46. PLEDGE OF ASSETS

The Group's buildings, leasehold land, pledged bank deposits, concession rights and assets of service concession arrangements were partly pledged for bank facilities and borrowings. For details, please refer to notes 13, 14, 27 and 33, respectively.

47. COMMITMENTS

The Group had the following capital commitments at the end of the reporting period:

	2021 RMB'000	2020 RMB'000
Contracted, but not provided for:		
– construction work under service concession arrangements	1,070,619	1,773,273
– property, plant and equipment	153,546	153,896
– capital contributions to an associate	–	28,121
	1,224,165	1,955,290

48. RELATED PARTY TRANSACTIONS

In addition to the transactions and balances disclosed elsewhere in the consolidated financial statements, the Group entered into the following material related party transactions during the year of 2021:

(a) The transactions and balances with government-related entities are listed below:

The PRC subsidiaries of the Group operate in an economic environment currently predominated by entities controlled, jointly controlled or significantly influenced by the PRC government ("government-related entities"). The immediate shareholders of the Company, Beijing Capital (HK) and BCG Chinastar, which are companies incorporated in Hong Kong with limited liability, are ultimately controlled by the PRC government. The ultimate parent of both immediate shareholders is Beijing Capital Group, which is controlled by the State-owned Assets Supervision and Administration Commission of the People's Government of Beijing Municipality.

Beijing Capital Investment & Guarantee Co., Ltd. ("Beijing Capital I&G"), Capital Securities Co., Ltd ("Capital Securities"), Beijing Capital Air Environmental Science & Technology Co., Ltd. ("Beijing Capital Air"), and Sichuan Bluestone Construction Co., Ltd ("SC BlueStone"), are subsidiaries of Beijing Capital Group.

(i) Transactions with related parties within Beijing Capital Group:

Name of the related parties	Nature of the transactions	2021 RMB'000	2020 RMB'000
Beijing Capital I&G	Guarantee charges	4	83
Beijing Capital (HK)	Rental expenses	1,494	1,630
Beijing Capital (HK)	Interest expenses	643	–
BCG Chinastar	Interest expenses	120,318	140,959
Beijing Capital Group	Guarantee charges*	10,229	8,619
Beijing Capital Group	Keepwell fee**	4,253	6,136
Capital Securities	Underwriting service fee***	350	3,000
Beijing Capital Air	Purchase of machinery^	653	5,880
SC BlueStone	Operation service income^^	22,718	42,209
Beijing Capital Eco	Guarantees charges^^^	3,049	–

48. RELATED PARTY TRANSACTIONS *(Continued)*

(a) The transactions and balances with government-related entities are listed below: *(Continued)*

(i) *(Continued)*

* Beijing Capital Group provided guarantee services for the issued bonds of RMB1,000,000,000 based on the rate of 0.5% per annum and for a loan of RMB900,000,000 from Ping An Asset Management Co., Ltd based on the rate of 0.6% per annum.

** Beijing Capital Group provided keepwell services for the issued notes of US$300,000,000 based on the rate of 0.3% per annum.

*** Capital Securities provided the underwriting service for the issuance of corporate bonds of RMB1,000,000,000. The underwriting service fee was based on 0.3% of the principal amount of the issued corporate bonds.

^ Beijing Capital Air provided a deodorisation system and related installation and commissioning services for a hazardous waste treatment project.

^^ The operation service income was related to an environmental remediation project subcontracted to the Group. The project was completed and trade receivables due from SC Bluestone was RMB44,754,000 as at 31 December 2021.

^^^ Beijing Capital Eco provided guarantee services for a bank loan of RMB300,000,000 from the Financial Institutions based on the rate of 0.5% per annum.

(ii) Transactions and balances with other government-related entities:

The Group recognised revenue from the construction services and operation services of RMB3,168,203,000 (2020: RMB3,605,593,000) and RMB1,006,158,000 (2020: RMB724,192,000), respectively, under service concession arrangements with the local governments in the PRC (see note 21). All the concession financial assets of the Group are due from the local governments in the PRC.

RMB475,779,000 (2020: RMB664,774,000) were due from the Ministry of Finance of the PRC in relation to government dismantling tariffs and electricity generation, which were included in trade receivables and contract assets.

Trade receivables due from the local governments in the PRC in relation to the waste treatment service were RMB950,065,000 (2020: RMB573,155,000).

Commitments with government-related entities were included in note 47.

Apart from the transactions disclosed above, the Group also conducts business with other government-related entities. The directors of the Company consider that those government-related entities are independent third parties so far as the Group's business transactions with them are concerned.

In establishing its pricing strategies and approval process for transactions with other government-related entities, the Group does not differentiate whether the counter-party is a government-related entity or not.

48. RELATED PARTY TRANSACTIONS *(Continued)*

(b) The transactions with non-government-related entities which are related to the Group are listed below:

	Notes	2021 RMB'000	2020 RMB'000
Sales to related parties:			
Transwaste	(i)	**116,611**	118,741
Pike Point Transfer Station	(i)	**11,346**	10,461
Burwood Resource Recovery Park Limited	(ii)	**6,030**	8,936
Midwest Disposals	(i)	**6,671**	5,930
Waste Disposal Services	(iii)	**4,508**	4,256
		145,166	148,324
Purchases from related parties:			
Transwaste	(i)	**33,155**	37,700
Midwest Disposals	(i)	**36,005**	35,932
Waste Disposal Services	(iii)	**20,980**	16,729
Pike Point Transfer Station	(i)	**14,902**	13,055
Daniels Sharpsmart New Zealand Limited	(i)	**5,298**	3,887
Beijing Lanjie	(iv)	**3,034**	1,498
		113,374	108,801
Interest income from a related party:			
SZ Guangye	(iv)	**–**	2,454

Notes:

(i) The entity is a joint venture of the Group.

(ii) The entity is a subsidiary of the Group's joint venture.

(iii) The transactions are with the other operator of Waste Disposal Services.

(iv) The entity is a former associate of the Group.

(c) The emoluments of key management personnel during the year are as follows:

	2021 RMB'000	2020 RMB'000
Short-term benefits	**11,510**	16,083
Post-employment benefits	**283**	34
	11,793	16,117

49. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows:

2021

Financial assets

	Derivatives designated as hedging instruments	Financial assets at fair value through other comprehensive income	Financial assets at amortised cost	Total
		Equity investment		
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*
Financial assets at fair value through other comprehensive income	–	16,665	–	16,665
Concession financial assets	–	–	6,928,061	6,928,061
Trade receivables	–	–	1,638,646	1,638,646
Financial assets included in prepayments, other receivables and other assets	–	–	408,446	408,446
Amounts due from associates	–	–	1,954	1,954
Pledged deposits	–	–	37,746	37,746
Derivative financial instruments	1,766	–	–	1,766
Cash and cash equivalents	–	–	1,682,745	1,682,745
	1,766	16,665	10,697,598	10,716,029

Financial liabilities

	Derivatives designated as hedging instruments	Financial liabilities at amortised cost	Total
	RMB'000	*RMB'000*	*RMB'000*
Trade payables	–	2,062,996	2,062,996
Financial liabilities included in other payables and accruals	–	274,365	274,365
Interest-bearing bank and other borrowings	–	11,730,624	11,730,624
Amount due to related parties	–	9,153	9,153
Corporate bonds	–	996,514	996,514
Derivative financial instruments	5,106	–	5,106
Lease liabilities	–	1,319,706	1,319,706
	5,106	16,393,358	16,398,464

49. FINANCIAL INSTRUMENTS BY CATEGORY *(Continued)*

2020

Financial assets

	Financial assets at fair value through other comprehensive income		
	Equity investment *RMB'000*	Financial assets at amortised cost *RMB'000*	Total *RMB'000*
Financial assets at fair value through other comprehensive income	17,399	–	17,399
Concession financial assets	–	5,261,232	5,261,232
Trade receivables	–	1,499,645	1,499,645
Financial assets included in prepayments, other receivables and other assets	–	245,392	245,392
Amounts due from associates	–	48,690	48,690
Pledged deposits	–	50,192	50,192
Time deposits	–	5,000	5,000
Cash and cash equivalents	–	2,762,052	2,762,052
	17,399	9,872,203	9,889,602

Financial liabilities

	Derivatives designated as hedging instruments *RMB'000*	Financial liabilities at amortised cost *RMB'000*	Total *RMB'000*
Trade payables	–	1,853,229	1,853,229
Financial liabilities included in other payables and accruals	–	235,229	235,229
Interest-bearing bank and other borrowings	–	8,717,146	8,717,146
Amount due to a related party	–	1,939	1,939
Notes payable	–	1,950,197	1,950,197
Corporate bonds	–	995,529	995,529
Derivative financial instruments	37,903	–	37,903
Lease liabilities	–	1,365,132	1,365,132
	37,903	15,118,401	15,156,304

50. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

The carrying amounts of the Group's financial instruments reasonably approximate to their fair values.

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Assets measured at fair value:

As at 31 December 2021	**Fair value measurement using**			
	Quoted prices in active markets (Level 1)	**Significant observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**	**Total**
	RMB'000	***RMB'000***	***RMB'000***	***RMB'000***
Equity investment designated at fair value through other comprehensive income	**–**	**–**	**16,665**	**16,665**
Assets classified as held for sale	**–**	**–**	**479,939**	**479,939**
	–	**–**	**496,604**	**496,604**

As at 31 December 2020	Fair value measurement using			
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
	RMB'000	*RMB'000*	*RMB'000*	*RMB'000*
Equity investment designated at fair value through other comprehensive income	–	–	17,399	17,399

50. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS *(Continued)*

Fair value hierarchy *(Continued)*

Liabilities measured at fair value:

	Fair value measurement using			
As at 31 December 2021	**Quoted prices in active markets (Level 1)** *RMB'000*	**Significant observable inputs (Level 2)** *RMB'000*	**Significant unobservable inputs (Level 3)** *RMB'000*	**Total** *RMB'000*
Derivative financial instruments	**–**	**5,106**	**–**	**5,106**

	Fair value measurement using			
As at 31 December 2020	Quoted prices in active markets (Level 1) *RMB'000*	Significant observable inputs (Level 2) *RMB'000*	Significant unobservable inputs (Level 3) *RMB'000*	Total *RMB'000*
Financial liabilities				
Derivative financial instruments	–	37,903	–	37,903

51. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments, other than derivative financial instruments, comprise interest-bearing bank and other borrowings, notes payable, cash and cash equivalents, pledged deposits, and financial assets at fair value through other comprehensive income. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as concession financial assets, trade receivables, amounts due from associates, amounts due to the immediate shareholders, an amount due to a related party, financial assets included in prepayments, other receivables and other assets, trade payables, and financial liabilities included in other payables and accruals, which arise directly from its operations.

The main risks arising from the Group's financial instruments are interest rate risk, foreign currency risk, credit risk and liquidity risk. The board of directors reviews and agrees policies for managing each of these risks and they are summarised below. The Group's accounting policies in relation to derivatives are set out in note 2.4 to the consolidated financial statements.

Interest rate risk

The Group's exposure to the risk of changes in market interest rates relates primarily to its interest-bearing borrowings with floating interest rates.

The Group's policy is to manage its interest cost using a mix of fixed and variable rate debts. If there would be a general increase/decrease in the interest rates of bank loans with floating interest rates by one percentage point, with all other variables held constant, the consolidated profit before tax would have decreased/increased by approximately RMB84,873,000 for the year ended 31 December 2021 (2020: RMB39,802,000).

51. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(Continued)*

Foreign currency risk

Substantially all of the Group's sales and purchases are denominated in RMB and NZ$. The Group's certain bank balances are denominated in NZ$, HK$, US$ and Euro, while certain expenses of the Group are denominated in currencies other than RMB.

The Group is mainly exposed to exchange fluctuations in NZ$, US$ and HK$ against RMB. The following table demonstrates the sensitivity as at 31 December 2021 and 2020 to a reasonably possible change in the NZ$, US$ and HK$ exchange rates, with all other variables held constant, of the Group's profit before tax and the Group's equity.

	Increase/ (decrease) in exchange rate *%*	Increase/ (decrease) in profit before tax *RMB'000*	Increase/ (decrease) in equity* *RMB'000*
2021			
If RMB weakens against NZ$	**5**	**–**	**112,668**
If RMB strengthens against NZ$	**(5)**	**–**	**(112,668)**
If RMB weakens against US$	**5**	**–**	**(149,365)**
If RMB strengthens against US$	**(5)**	**–**	**149,365**
If RMB weakens against HK$	**5**	**58,430**	**–**
If RMB strengthens against HK$	**(5)**	**(58,430)**	**–**
2020			
If RMB weakens against NZ$	5	–	120,791
If RMB strengthens against NZ$	(5)	–	(120,791)
If RMB weakens against US$	5	–	(96,869)
If RMB strengthens against US$	(5)	–	96,869
If RMB weakens against HK$	5	(139,524)	–
If RMB strengthens against HK$	(5)	139,524	–

* Excluding retained profits

51. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(Continued)*

Credit risk

The credit risk of the Group's financial assets, which comprise cash and cash equivalents, time deposits, pledged deposits, trade receivables, concession financial assets, financial assets included in prepayments, other receivables and other assets, financial assets at fair value through other comprehensive income and amounts due from associates, arises from default of the counterparty, with a maximum exposure equal to the carrying amounts of these instruments.

As at 31 December 2021, the Group's maximum exposure to credit risk which would cause a financial loss to the Group due to failure to discharge an obligation by the counterparties arose from the carrying amounts of the respective recognised financial assets as stated in the consolidated statement of financial position.

In order to minimise the credit risk, the management of the Group has delegated a team responsible for the determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In addition, the Group reviews the recoverable amount of each individual trade debt at the end of the reporting period to ensure that adequate impairment losses are made for irrecoverable amounts. In this regard, the directors of the Company consider that the Group's credit risk is being closely monitored.

The Group's concentration of credit risk by geographical location is mainly in the PRC and New Zealand which accounted for 82% and 18%, respectively (2020: 81% and 19%) of the total trade receivables as at 31 December 2021.

The Group has a concentration of credit risk in concession financial assets and contract assets of RMB9,045,493,000 (2020: RMB6,919,549,000) as at 31 December 2021, representing a guaranteed waste treatment fee to be received from fifty-two (2020: fifty-two) grantors in service concession arrangements of waste treatment and waste-to-energy plants. Besides, the Group has trade receivables and contract assets of RMB475,779,000 (2020: RMB664,774,000) due from the Ministry of Finance of the PRC and the Group has trade receivables of RMB955,330,000 (2020: RMB573,155,000) due from the local governments. The Group has considered the credit risk and provided the expected credit losses, details are given in note 25.

As at 31 December 2021, included in the prepayments, other receivables and other assets were RMB117,166,000 (2020: nil) of deposit receivables, which is mostly due from Shangrao Chengtou Energy Group Co., Ltd.（上饒市城投能源環保有限公司）, RMB25,446,000 (2020: nil) of deposit for tax review due from the Inland Revenue Department in Hong Kong, RMB188,803,000 (2020: RMB224,263,000) of tender deposits due from several local government as tenderers and RMB5,003,000 (2020: RMB7,738,000) of loans receivable mentioned in note 23. The Group considers that the credit risk of these is limited as these counterparties are with good credit history or good reputation.

The expected credit loss of RMB6,500,000 were provided for the amount due from Lanjie with the original amount of RMB8,454,000.

The credit risk on cash and cash equivalents, time deposits and pledged deposits are limited because the counterparties are reputable banks in Mainland China, New Zealand and Hong Kong.

Liquidity risk

The Group monitors its risk to a shortage of funds to consider the maturity of both its financial instruments and financial assets (e.g., trade receivables) and projected cash flows from operations.

The Group's objective is to ensure continuity of sufficient funding and flexibility through the use of bank and other borrowings and adequate unutilised banking facilities.

51. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(Continued)*

Liquidity risk *(Continued)*

The maturity profile of the Group's financial liabilities as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

2021	**On demand** *RMB'000*	**Within 1 year** *RMB'000*	**1 to 2 years** *RMB'000*	**2 to 5 years** *RMB'000*	**More than 5 years** *RMB'000*	**Total** *RMB'000*
Trade payables	**1,973,021**	**87,971**	**2,003**	**–**	**–**	**2,062,995**
Financial liabilities included in other payables and accruals	**274,365**	**–**	**–**	**–**	**–**	**274,365**
Amount due to a related party	**–**	**9,153**	**–**	**–**	**–**	**9,153**
Corporate bonds	**–**	**36,000**	**1,012,655**	**–**	**–**	**1,048,655**
Derivative financial instruments	**–**	**5,106**	**–**	**–**	**–**	**5,106**
Lease liabilities	**–**	**76,321**	**73,715**	**202,729**	**2,868,139**	**3,220,904**
Interest-bearing bank and other borrowings	**–**	**4,937,733**	**1,390,546**	**4,125,837**	**4,074,631**	**14,528,747**
	2,247,386	**5,152,284**	**2,478,919**	**4,328,566**	**6,942,770**	**21,149,925**

2020	On demand *RMB'000*	Within 1 year *RMB'000*	1 to 2 years *RMB'000*	2 to 5 years *RMB'000*	More than 5 years *RMB'000*	Total *RMB'000*
Trade payables	1,851,603	–	1,626	–	–	1,853,229
Financial liabilities included in other payables and accruals	235,229	–	–	–	–	235,229
Amount due to a related party	–	1,939	–	–	–	1,939
Notes payable	–	2,051,347	–	–	–	2,051,347
Corporate bonds	–	36,000	36,000	1,012,655	–	1,084,655
Derivative financial instruments	–	24,679	13,224	–	–	37,903
Lease liabilities	–	64,838	51,124	140,697	8,942,851	9,199,510
Interest-bearing bank and other borrowings	–	4,236,580	1,293,280	2,273,256	2,174,405	9,977,521
	2,086,832	6,415,383	1,395,254	3,426,608	11,117,256	24,441,333

The directors have carried out a detailed review of the cash flow forecast of the Group for the next twelve months from the end of the reporting period. Based on this forecast, the directors have determined that adequate liquidity exists to finance the working capital and capital expenditure requirements of the Group during that period. In preparing the cash flow forecast, the directors have considered historical cash requirements of the Group as well as other key factors, including the availability of the loan financing and additional capital from equity holders of the Company. The directors are of the opinion that the assumptions and sensitivities which are included in the cash flow forecast are reasonable. However, as all assumptions are taken with regard to future events, they are subject to inherent limitations and uncertainties and some or all of these assumptions may not be realised.

51. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(Continued)*

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratios in order to support its business and maximise shareholders' value.

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

The capital structure of the Group consists of net debt, which includes interest-bearing bank and other borrowings, notes payable and corporate bonds as disclosed in note 33, note 34 and note 35, respectively, net of cash and cash equivalents, and equity attributable to owners of the Company, comprising issued share capital, reserves and accumulated losses.

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

52. EVENTS AFTER THE REPORTING PERIOD

There were no subsequent events that require adjustments to or disclosures in the consolidated financial statements.

53. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	2021 *RMB'000*	2020 *RMB'000*
NON-CURRENT ASSETS		
Property, plant and equipment	8	16
Amounts due from subsidiaries	4,431,939	3,529,914
Investments in subsidiaries	3,286,382	3,365,150
Total non-current assets	7,718,329	6,895,080
CURRENT ASSETS		
Prepayments, other receivables and other assets	551	1,183
Bank balances and cash	223,261	1,191,109
Total current assets	223,812	1,192,292
CURRENT LIABILITIES		
Interest-bearing bank and other borrowings	1,308,155	589,148
Notes payable	–	1,950,197
Amount due to a shareholder	3,050	–
Other payables and accruals	26,617	61,536
Total current liabilities	1,337,822	2,600,881
NET CURRENT LIABILITIES	1,114,010	(1,408,589)
NON-CURRENT LIABILITIES		
Corporate bonds	996,514	995,529
Interest-bearing bank and other borrowings	1,902,404	589,148
Derivative financial instruments	5,106	12,598
Total non-current liabilities	2,904,024	1,597,275
Net assets	3,700,295	3,889,216
CAPITAL AND RESERVES		
Share capital	1,188,219	1,188,219
Reserves (note)	2,512,076	2,700,997
Total equity	3,700,295	3,889,216

53. STATEMENT OF FINANCIAL POSITION OF THE COMPANY *(Continued)*

Note:

A summary of the Company's reserves is as follows:

	Share premium *RMB'000*	Other equity instruments *RMB'000*	Exchange fluctuation reserve *RMB'000*	Cash flow hedge reserve *RMB'000*	Accumulated losses *RMB'000*	Total *RMB'000*
At 1 January 2020	1,670,391	–	(67,743)	–	–	1,602,648
Loss for the year	–	–	–	–	(155,758)	(155,758)
Other comprehensive expense for the year	–	–	(50,233)	(12,598)	–	(62,831)
Total comprehensive expense	–	–	(50,233)	(12,598)	(155,758)	(218,589)
Capital contribution from the preference shareholders	–	1,316,938	–	–	–	1,316,938
At 31 December 2020	1,670,391	1,316,938	(117,976)	(12,598)	(155,758)	2,700,997
Loss for the year	**–**	**–**	**–**	**–**	**(140,972)**	**(140,972)**
Other comprehensive income/(expense) for the year	**–**	**–**	**(106,197)**	**7,492**	**–**	**(98,705)**
Total comprehensive expense	**–**	**–**	**(106,197)**	**7,492**	**(140,972)**	**(239,677)**
Capital contribution from the preference shareholders	**–**	**50,756**	**–**	**–**	**–**	**50,756**
At 31 December 2021	**1,670,391**	**1,367,694**	**(224,173)**	**(5,106)**	**(296,730)**	**2,512,076**

54. APPROVAL OF THE CONSOLIDATED FINANCIAL STATEMENTS

The consolidated financial statements were approved and authorised for issue by the board of directors on 29 March 2022.

FINANCIAL SUMMARY

	For the year ended 31 December				
	2017 *RMB'000*	2018 *RMB'000*	2019 *RMB'000*	2020 *RMB'000*	**2021** ***RMB'000***
RESULTS					
Revenue	3,495,166	4,648,196	5,938,095	7,646,659	**7,902,604**
Profit attributable to equity holders of the Company	148,342	182,733	302,749	466,123	**564,171**

	As at 31 December				
	2017 *RMB'000*	2018 *RMB'000*	2019 *RMB'000*	2020 *RMB'000*	**2021** ***RMB'000***
ASSETS AND LIABILITIES					
Total assets	10,682,437	14,886,033	18,635,880	24,059,068	**26,173,239**
Total liabilities	(6,217,362)	(10,082,115)	(13,394,626)	(16,870,053)	**(18,456,618)**
	4,465,075	4,803,918	5,241,254	7,189,015	**7,716,621**
Equity attributable to equity holders of the Company	3,213,509	3,362,362	3,622,593	5,622,644	**6,210,896**
Non-controlling interests	1,251,566	1,441,556	1,618,661	1,566,371	**1,505,725**
	4,465,075	4,803,918	5,241,254	7,189,015	**7,716,621**

Capital Environment Holdings Limited
首創環境控股有限公司

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