

# 中国博奇环保(控股)有限公司

## China Boqi Environmental (Holding) Co., Ltd.

(Incorporated in the Cayman Islands with limited liability)  
(於開曼群島註冊成立的有限公司)

Stock Code 股份代號 : 2377

# 2022

## Annual Report 年報



BOQI

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## Corporate Information

### 公司資料

#### BOARD OF DIRECTORS

##### Executive Director

Zeng Zhijun (*Chairman*)

##### Non-Executive Directors

Cheng Liquan Richard

Zheng Tony Tuo

Zhu Weihang

Chen Xue

##### Independent Non-Executive Directors

Liu Genyu

Xie Guozhong

Lu Zhifang

#### AUDIT COMMITTEE

Xie Guozhong (*Chairman*)

Zheng Tony Tuo

Liu Genyu

#### REMUNERATION COMMITTEE

Lu Zhifang (*Chairman*)

Zeng Zhijun

Liu Genyu

#### NOMINATION COMMITTEE

Zeng Zhijun (*Chairman*)

Xie Guozhong

Lu Zhifang

#### JOINT COMPANY SECRETARIES

Qian Xiaoning

Wong Wai Ling

#### AUTHORIZED REPRESENTATIVES

Zeng Zhijun

Wong Wai Ling

#### AUDITOR

Ernst & Young

*Certified Public Accountant*

*Registered Public Interest Entity Auditor*

27/F, One Taikoo Place

979 King's Road

Quarry Bay, Hong Kong

#### 董事會

##### 執行董事

曾之俊(主席)

##### 非執行董事

程里全

鄭拓

朱偉航

陳學

##### 獨立非執行董事

劉根鈺

謝國忠

陸志芳

#### 審核委員會

謝國忠(主席)

鄭拓

劉根鈺

#### 薪酬委員會

陸志芳(主席)

曾之俊

劉根鈺

#### 提名委員會

曾之俊(主席)

謝國忠

陸志芳

#### 聯席公司秘書

錢曉寧

黃慧玲

#### 授權代表

曾之俊

黃慧玲

#### 核數師

安永會計師事務所

*註冊會計師*

*註冊公眾利益實體核數師*

香港鰂魚涌

英皇道979號

太古坊一座27樓

**Corporate Information (Continued)**

公司資料 (續)

**REGISTERED OFFICE**

PO Box 309, Ugland House  
Grand Cayman KY1-1104  
Cayman Islands

**PLACE OF BUSINESS IN HONG KONG**

40/F, Dah Sing Financial Centre  
248 Queen's Road East  
Wanchai, Hong Kong

**HEADQUARTERS IN THE PRC**

Floor 2, Guoben Culture Building  
No. Jia 8, Xinglongzhuang  
Chaoyang District  
Beijing, the PRC

**LEGAL ADVISERS**

*As to Hong Kong law*  
Tian Yuan Law Firm LLP  
Suites 3304-3309  
33/F, Jardine House  
One Connaught Place  
Central, Hong Kong

*As to PRC law*  
Commerce & Finance Law Offices  
12-14th Floor, China World Office 2  
No. 1 Jianguomenwai Avenue  
Beijing 100022  
the PRC

*As to Cayman Islands Law*  
Maples and Calder (Hong Kong) LLP  
53rd Floor, The Center  
99 Queen's Road Central  
Hong Kong

**註冊辦事處**

PO Box 309, Ugland House  
Grand Cayman KY1-1104  
Cayman Islands

**香港營業地點**

香港灣仔  
皇后大道東248號  
大新金融中心40樓

**中國主要辦事處**

中國北京市  
朝陽區  
興隆莊甲8號  
國本文化大廈2層

**法律顧問**

*有關香港法律*  
天元律師事務所(有限法律責任合夥)  
香港中環  
康樂廣場1號  
怡和大廈33樓  
3304-3309室

*有關中國法律*  
通商律師事務所  
中國北京市  
建國門外大街1號  
國貿寫字樓2座12-14層  
郵編100022

*有關開曼群島法律*  
邁普達律師事務所(香港)有限法律責任合夥  
香港  
皇后大道中99號  
中環中心53樓



**Corporate Information (Continued)****公司資料(續)****PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE**

Maples Fund Services (Cayman) Limited  
PO Box 1093  
Boundary Hall  
Cricket Square, Grand Cayman  
KY1-1102, Cayman Islands

**HONG KONG BRANCH SHARE REGISTRAR**

Tricor Investor Services Limited  
17/F, Far East Finance Centre  
16 Harcourt Road  
Hong Kong

**PRINCIPAL BANKERS**

China Construction Bank, Chaoyang Branch  
China Minsheng Bank, Aoyuncun Branch  
China CITIC Bank, Beichen Branch  
Jiangsu Bank, Xuanwumen Branch  
China Merchants Bank, Jianguo Road Branch  
Bank of China (Hong Kong) Limited

**STOCK CODE AND BOARD LOT****Stock Code:**

2377

**Board Lot:**

1,000 Shares

**INVESTOR RELATIONS AND COMMUNICATIONS**

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+86 10 5878 2059  
Fax: +86 10 5957 9900 – 001  
Website: [www.chinaboqi.com](http://www.chinaboqi.com)  
Email: [irhk@chinaboqi.com](mailto:irhk@chinaboqi.com)

**主要股份過戶登記處**

Maples Fund Services (Cayman) Limited  
PO Box 1093  
Boundary Hall  
Cricket Square, Grand Cayman  
KY1-1102, Cayman Islands

**香港股份過戶登記處分處**

卓佳證券登記有限公司  
香港  
夏慤道16號  
遠東金融中心17樓

**主要往來銀行**

中國建設銀行朝陽支行  
中國民生銀行奧運村支行  
中信銀行北辰支行  
江蘇銀行宣武門支行  
招商銀行建國路支行  
中國銀行(香港)有限公司

**股份代號及買賣單位****股份代號：**

2377

**買賣單位：**

1,000股

**投資者關係與聯絡**

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## Financial and Operation Highlights

### 財務及營運摘要

#### ANNUAL RESULTS HIGHLIGHTS

For the year ended 31 December 2022 (the “**Reporting Period**” or the “**2022 financial year**”), the revenue of China Boqi Environmental (Holding) Co., Ltd. (the “**Company**”) and its subsidiaries (the “**Group**”) amounted to RMB1,900 million, representing a decrease of 9.2% as compared with last year.

For the year ended 31 December 2022, the gross profit of the Group amounted to RMB391 million and the gross profit margin of the Group was 20.6%, representing an increase of 0.8% and 2.1 percentage points as compared with last year, respectively.

For the year ended 31 December 2022, the net profit of the Group amounted to RMB156 million with a new profit margin of 8.2%. Excluding gain and losses on fair value changes in financial assets at fair value through profit or loss and investment income, the Group’s net profit was RMB227 million, representing a decrease of 6.2% as compared with last year.

For the year ended 31 December 2022, the revenue from the Group’s flue gas treatment business segment was RMB1,510 million. As of 31 December 2022, the Group had 10 newly added EPC projects, with a total contract value amounting to approximately RMB429 million. During the Reporting Period, there were 23 O&M projects in operation, covering thermal electricity and steel sectors. The scope of the Group’s O&M services was successfully expanded from the original environmental protection facilities to the O&M of power generating units. As of 31 December 2022, the Group accumulated 7 concession operation projects, all of which have been put into operation smoothly, laying a strong foundation for the Group’s continuous operation and stable development.

For the year ended 31 December 2022, the revenue from the Group’s water treatment business segment was RMB271 million. The Group’s water treatment business has developed with favorable momentum. As of 31 December 2022, the Group had three new water treatment projects, with a total contract value of approximately RMB295 million. During the Reporting Period, there were 8 water treatment projects being implemented.

#### 年度業績摘要

截至2022年12月31日止年度（「**報告期**」或「**2022 財政年度**」），中國博奇環保(控股)有限公司（「**本公司**」）及其附屬公司（「**本集團**」）的收入為人民幣1,900百萬元，較去年減少9.2%。

截至2022年12月31日止年度，本集團的毛利為人民幣391百萬元及本集團的毛利率為20.6%，較去年分別增長0.8%及2.1個百分點。

截至2022年12月31日止年度，本集團的純利為人民幣156百萬元及本集團的純利率為8.2%。剔除按公允價值計入損益的金融資產的公允價值變動損益及投資收益後，本集團純利為人民幣227百萬元，較去年減少6.2%。

截至2022年12月31日止年度，本集團煙氣治理業務分部收入為人民幣1,510百萬元。於2022年12月31日，本集團有10個新增的EPC項目，總合同金額約為人民幣429百萬元。於報告期內，共有23個在投運的運維項目，涵蓋火電及鋼鐵領域，本集團運行維護服務範圍由原有的環保設施成功拓展至發電機組運維。於2022年12月31日，本集團累計在執行7個特許經營項目，全部均已順利投運，為本集團持續經營和穩定發展奠定重要基礎。

截至2022年12月31日止年度，本集團水處理業務分部收入為人民幣271百萬元；本集團水處理業務發展態勢良好。於2022年12月31日，本集團有3個新訂約的水處理項目，總合同金額約為人民幣295百萬元。於報告期內，共有8個水處理項目正在執行中。

## Financial and Operation Highlights (Continued)

### 財務及營運摘要(續)

For the year ended 31 December 2022, the revenue from the Group's hazardous and solid waste treatment/disposal business segment was RMB12 million. In the field of co-processing of cement kilns, the construction of the first phase of the Cooperative Hazardous and Solid Waste Disposal Project of Tangshan Yandong Cement Kiln in China has been completed, and the hazardous waste business license is being processed. Qinghai Boqi Ecological Environmental Technology Co., Ltd. ("**Qinghai Boqi**") was affected by factors such as increasingly stringent regulatory environment and landscape on cross-province transfer of hazardous waste in the Qinghai Province and the lockdown caused by the coronavirus pandemic in 2022, and thus the Group made a downward adjustment of the acquisition consideration of Qinghai Boqi. Through the planning of its hazardous and solid waste treatment/disposal business, the Group is expected to further open up the market of the hazardous and solid waste treatment/disposal business.

For the year ended 31 December 2022, the revenue from the Group's dual-carbon energy saving business segment was RMB108 million. The contract model of CDQ Project of Tianjin Iron Plant was changed from the original EMC model to the BOT model, which will provide a stable source of income for the Group in the mid- to long-term, thus laying a foundation for the strategic deployment of the Group's dual-carbon energy saving business.

The board (the "**Board**") of directors (the "**Directors**") of the Company recommend the payment of HK\$3.00 cents per ordinary share as final dividend for the year ended 31 December 2022 (31 December 2021: HK\$7.40 cents).

截至2022年12月31日止年度，本集團危固廢處理處置業務分部的收入為人民幣12百萬元。在水泥窯協同處置領域，唐山燕東水泥窯協同處置危固廢處理項目一期已經建設完成，正在辦理危險廢物經營許可證。青海博奇生態環境科技有限公司(「**青海博奇**」)於2022年受青海省危險廢物跨省轉移的監管環境和格局日趨嚴格，以及新冠疫情導致停工等因素的影響，因此本集團已向下游調整青海博奇的收購代價。通過對危固廢處理處置業務的佈局，本集團有望進一步打開危固廢處理處置業務市場。

截至2022年12月31日止年度，本集團雙碳節能業務分部的收入為人民幣108百萬元。天津鐵廠乾熄焦工程項目的合同模式已由原本的EMC模式變更為BOT模式，中長期內將為本集團帶來穩定的收入來源，為本集團雙碳節能的戰略佈局奠定基礎。

本公司董事(「**董事**」)會(「**董事會**」)已建議宣派截至2022年12月31日止年度之末期股息每股普通股3.00港仙(2021年12月31日：7.40港仙)。

## Financial and Operation Highlights (Continued)

## 財務及營運摘要 (續)

The following table sets forth the Company's consolidated statements of profit or loss and other comprehensive income for the periods indicated:

下表載列所示期間本公司的綜合損益及其他全面收益表：

		Year ended 31 December 截至12月31日止年度				
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元	2020 2020年 RMB'000 人民幣千元	2019 2019年 RMB'000 人民幣千元	2018 2018年 RMB'000 人民幣千元
Revenue	收入	1,900,248	2,092,172	1,646,131	1,836,496	1,744,998
Cost of sales and services	銷售及服務成本	(1,509,470)	(1,704,613)	(1,306,053)	(1,529,974)	(1,427,140)
Gross profit	毛利	390,778	387,559	340,078	306,522	317,858
Other income and gains and other expense and losses	其他收入及收益以及 其他開支及虧損	(32,231)	136,563	33,532	25,436	117,456
Selling and distribution expenses	銷售及分銷開支	(19,910)	(30,189)	(22,352)	(29,295)	(26,170)
Administrative expenses	行政開支	(89,726)	(89,546)	(79,540)	(88,776)	(98,485)
Research and development expenses	研發開支	(58,662)	(40,040)	(33,810)	(24,256)	(10,618)
(Reversal of)/impairment losses on financial and contract assets	金融及合約資產的(減值 虧損撥回)/減值虧損	(15,078)	892	(11,633)	(10,928)	(3,816)
Share of profits of associates	分佔聯營公司溢利	14,395	30,601	19,337	34,541	27,963
Finance costs	財務成本	(13,667)	(9,786)	(9,910)	(4,177)	(5,900)
Change in fair value of convertible ordinary shares	可轉換普通股之 公允價值變動	-	-	-	-	133,541
Listing expenses	上市開支	-	-	-	-	(3,319)
Profit before tax	除稅前溢利	175,899	386,054	235,702	209,067	448,510
Income tax expense	所得稅開支	(20,241)	(37,652)	(28,309)	(26,453)	(55,691)
Profit for the year	年內溢利	155,658	348,402	207,393	182,614	392,819



## Financial and Operation Highlights (Continued)

## 財務及營運摘要(續)

		Year ended 31 December 截至12月31日止年度				
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元	2020 2020年 RMB'000 人民幣千元	2019 2019年 RMB'000 人民幣千元	2018 2018年 RMB'000 人民幣千元
Other comprehensive income/(loss) <i>Other comprehensive income/(loss) that will not be reclassified to profit or loss in subsequent periods</i>	其他全面收益/(虧損) 往後期間不會重新分類至 損益的其他全面 收益/(虧損)					
Equity investment at fair value through other comprehensive income:	按公允價值計入其他全面 收益的股權投資					
Changes in fair value	公允價值變動	916	-	-	(2,374)	(5,460)
Income tax effect	所得稅影響	-	-	-	171	819
Net other comprehensive income/(loss) that will not be reclassified to profit or loss in subsequent periods	於往後期間不會重新分類至 損益的其他全面 收益/(虧損)淨額	916	-	-	(2,203)	(4,641)
Total comprehensive income/(loss) for the year	年內全面收益/ (虧損)總額	156,574	348,402	207,393	180,411	388,178
Profit/(loss) attributable to:	以下應佔溢利/(虧損):					
Owners of the parent	母公司擁有人	151,749	348,239	207,608	182,537	394,359
Non-controlling interests	非控股權益	3,909	163	(215)	77	(1,540)
		155,658	348,402	207,393	182,614	392,819
Total comprehensive income/(loss) for the year attributable to:	以下應佔年內 全面收益/ (虧損)總額:					
Owners of the parent	母公司擁有人	152,665	348,239	207,608	180,334	389,718
Non-controlling interests	非控股權益	3,909	163	(215)	77	(1,540)
		156,574	348,402	207,393	180,411	388,178
Earnings/(loss) per share attributable to ordinary equity holders of the parent	母公司普通股權益持有人 應佔每股盈利/(虧損)					
- Basic (RMB)	- 基本(人民幣)	0.15	0.35	0.21	0.18	0.44
- Diluted (RMB)	- 攤薄(人民幣)	0.15	0.35	0.21	0.18	0.27

## Financial and Operation Highlights (Continued)

## 財務及營運摘要 (續)

The following table sets forth selected items from the Company's consolidated statements of financial position as at the dates indicated:

下表載列於所示日期本公司綜合財務狀況表的選定項目：

		As at 31 December 於12月31日				
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元	2020 2020年 RMB'000 人民幣千元	2019 2019年 RMB'000 人民幣千元	2018 2018年 RMB'000 人民幣千元
<b>ASSETS</b>	<b>資產</b>					
Total non-current assets	非流動資產總額	2,086,193	2,314,192	1,800,781	1,774,408	1,253,016
Total current assets	流動資產總額	2,639,111	2,463,021	2,064,331	2,222,644	2,277,234
Total assets	資產總額	4,725,304	4,777,213	3,865,112	3,997,052	3,530,250
<b>LIABILITIES AND EQUITY</b>	<b>負債及權益</b>					
Total current liabilities	流動負債總額	1,732,520	1,772,486	1,299,353	1,711,841	1,337,058
Total non-current liabilities	非流動負債總額	143,856	256,841	114,941	11,053	20,018
Total equity	權益總額	2,848,928	2,747,886	2,450,818	2,274,158	2,173,174
Total liabilities and equity	負債及權益總額	4,725,304	4,777,213	3,865,112	3,997,052	3,530,250

Note: There is no restatement of prior years financial information upon application of IFRS 9 and IFRS 15 as at 1 January 2018 and IFRS 16 as at 1 January 2019.

附註：於2018年1月1日應用國際財務報告準則第9號及國際財務報告準則第15號，以及於2019年1月1日應用國際財務報告準則第16號時，無重述過往年度財務資料。

**Financial and Operation Highlights (Continued)****財務及營運摘要(續)**

The following table sets forth a summary of the consolidated statements of cash flows for the periods indicated: 下表載列所示期間綜合現金流量表概要：

		<b>Year ended 31 December</b>				
		<b>截至12月31日止年度</b>				
		<b>2022</b>	2021	2020	2019	2018
		<b>2022年</b>	2021年	2020年	2019年	2018年
		<b>RMB million</b>	RMB million	RMB million	RMB million	RMB million
		<b>人民幣百萬元</b>	人民幣百萬元	人民幣百萬元	人民幣百萬元	人民幣百萬元
Net cash flows from/(used in) operating activities	經營活動所得／(所用)現金淨額	<b>137</b>	(56)	230	123	85
Net cash flows (used in)/from investing activities	投資活動(所用)／所得現金淨額	<b>(23)</b>	(129)	(130)	(439)	(376)
Net cash flows (used in)/from financing activities	融資活動(所用)／所得現金淨額	<b>(67)</b>	16	(32)	(15)	369

## Chairman's Statement 主席報告書



Dear Shareholders,

In the Year of Tiger, the “Boqi” brand has been established for 20 years. Boqi has grown from a small company to a large enterprise, burgeoning from a learner of business to a robust and rapid developing group. Our assets have grown from a few million of RMB to nearly five billion of RMB; the number of our employees have risen from double digits to four digits; the scope of our service have extended from environmental governance to new energy+; our business has grown from a single segment of flue gas treatment to an integrated business comprising four segments relating to flue gas, water, solid waste and dual-carbon new energy; and our brand has also ranked among the forefront of the industry. Looking back on the past 20 years, although the journey was full of obstacles and ups and downs, all Boqi people have shared the same aspiration and vision of defending the “blue sky, clear water and pure land”, and they have created numerous remarkable results together and make significant contribution to the development of Boqi.

尊敬的各位股東：

壬寅虎年，「博奇」品牌創立滿20週年，博奇從一個小型企業壯大成了一個大型企業，從蹣跚學步的嬰兒成長為了步伐矯健的青壯年。我們的資產從幾百萬增長到了近伍拾億人民幣；我們的員工從兩位數上升到了四位數；我們的服務從環境治理延伸到了新能源+；我們的業務領域從單一的煙氣治理拓展到了「氣—水—固—雙碳新能源+」四位一體；我們的品牌也躋身到了行業前列。回顧這20年，征途上雖佈滿荊棘與坎坷，但博奇人都懷揣着相同的保衛「藍天、碧水、淨土」的情懷與夢想，攜手共進的創造了累累碩果，為博奇的發展歷程書寫了一次次佳績。

## Chairman's Statement (Continued)

### 主席報告書(續)

The year 2022, being the third year under the influence of COVID-19, is an extraordinary, unusual and difficult year. On the global front, various factors such as the continuation of the conflict between Russia and Ukraine, the intensification of the energy crisis and the high inflation of major economies in Europe and the United States have combined to bring unprecedented uncertainty to the world economy. In the face of a severe and complex external environment, the domestic economic situation is also facing unprecedented difficulties since the reform and opening-up of China. Resurgence of the COVID-19 pandemic, sluggish demand and a serious lack of investor confidence have led to the overall economic downturn.

During the year, we have experienced much bitterness in the business environment. The impact of the COVID-19 pandemic on industrial production and people's lives have become increasingly intense. The repeated suspension of market activities and the shrinking of domestic demand caused the reduction of industrial production capacity and the sharp rise in international bulk commodity prices, which have directly affected our order volume, income and profit. Due to the suspension of commercial activities, the progress of our new business development and scale expansion has severely lagged behind the business goals at the beginning of the year. Because of the strict prevention and control policies in various places, we had to adopt a flexible approach to arrange staffing for individual operational projects according to the market situation. Although the overall per capita operation of the Group has been improved, the overall staff size has been reduced.

During the year, we also had delightful experience. The current competition among environmental protection enterprises has gradually shifted from the hard capability of "investment + engineering" to the soft capability of refined management of "operation + technology". If employees are the essence of the existence of a company, then service and technology can be regarded as the foundation of the business of an enterprise. Capitalizing on the considerable time made available to the management due to the nationwide pandemic control measures, the management have extensively and carefully reviewed Boqi's 14th Five-Year Plan. While maintaining our strategic positioning, we have deeply analyzed the new stage, new pattern and new format of the current environmental industry development. In the light of the Company's development strategy and the needs of business transformation, we have further refined the action plan for

2022年，新冠疫情影響下的第三年，是極不平凡、極不尋常、極不容易的一年。在全球範圍內，俄烏衝突持續、能源危機加劇，歐美各主要經濟體通脹高企等因素疊加，給全球經濟帶來空前的不確定性。面對嚴峻複雜的外部環境，中國國內的經濟局面也面臨着改革開放以來從未有過的巨大困難，疫情反覆、需求不振、投資者信心嚴重不足等導致了整體經濟下行。

這一年，我們有辛酸。疫情對工業生產和人民生活所造成的影響趨於白熱化，市場活動階段性停滯的反覆、國內需求萎縮造成工業產能的減少和國際大宗商品價格的大幅上漲，直接影響了我們的訂單額、收入和利潤。因為無法進行商務活動，我們新業務領域的開拓和規模擴張進度都嚴重的滯後於年初的經營目標；因為各地防控政策的嚴格，個別營運類項目的現場人員編製也不得不進行市場化的靈活方式，雖然集團整體人均經營有所提升，但整體人員規模有所縮減。

這一年，我們有喜悅。當下環保企業間的競爭已經由「投資+工程」的硬實力逐步進入到「運營+技術」精細化管理的軟實力的角逐，如果說員工是企業的立命之本，那麼服務和技術就可以算是企業的立業之本。全國性的疫情管控使得我們管理層有了大片的連續性時間坐下來審視博奇的十四五規劃，在保持戰略定位的同時，深入分析當前環境產業發展新階段、新格局、新業態，結合公司發展戰略和業務轉型需要，更加細化了新業務發展的行動方案，確定了我們在行業內的生態位；得益於商務活動受限的激發，我們新設了客戶服務部，並確定以「服務建立信任，專業創造價值」的管理理念深耕客戶關係，拓寬拓深大客戶業務的同時，也打通了客戶與我們之間互通有無的新通道，全年大客戶新訂單貢獻率攀升至70%；與此同時，通過收併購的形式完成了工業

## Chairman's Statement (Continued)

### 主席報告書(續)

new business development and determined our position in the ecosystem of the industry. Benefiting from the stimulation of restricted commercial activities, we have established a new customer service department and determined to deeply cultivate customer relationships and develop and expand the business with key customers with the management philosophy of "Service Building Trust, Professionalism Creates Value". Meanwhile, new channels for communication between customers and the Group have also been established. As such, the percentage of new orders from key customers for the year has increased to 70%. At the same time, the expansion of the technical capacity in the field of industrial water treatment has been completed through mergers and acquisitions. As a result, we have successfully explored the sewage treatment market in the paper industry and undertaken China's largest sewage treatment technical transformation project in the paper industry in recent years – Sewage Treatment and Renovation EPC Project for Pulping and Paper Production of Shandong Bohui Paper Co., Ltd..

During the year, we have also seen a glimpse of hope amidst adversity. In the past 10 years from the 18th National Congress to the 20th National Congress of the Communist Party of China, the environmental protection industry has also undergone historic changes. In the 18th National Congress of the Communist Party of China, the construction of a "Beautiful China" was included in the goal of a socialist modernized country for the first time, and "Ecological Civilization" was included in the overall planning of the integrated development of five main sectors, so that "Green Development" was incorporated into the new development concept. In the 19th National Congress of the Communist Party of China, the concept of "Harmonious Coexistence between Man and Nature" was included in the basic strategy of upholding and developing socialism with Chinese characteristics in the new era, and "Pollution Prevention" was incorporated into the three critical missions. Subsequently, the general secretary's report to the 20th National Congress once again emphasized the importance of ecological protection, and called for promoting the construction of a beautiful China, coordinating the adjustment of industrial structure, pollution control and ecological protection, and further promoting the prevention and control of environmental pollution, with a view to continuously and vigorously defending the country's blue sky, clear water and clean land. From the perspective of our country's strategic deployment, the layout of China's ecological civilization construction will be more comprehensive and the policy system will be more mature. In the long run, there is so much more we can do, should do and need to do.

水處理領域技術路線的拓展，並因此成功打開了造紙行業工業水處理市場，承攬了近年來中國最大的造紙行業水處理技改項目－山東博匯紙業股份有限公司制漿造紙污水處理改造EPC項目。

這一年，我們有曙光。黨的十八大到二十大這10年來，環保行業也發生了歷史性的變革，從黨的十八大首次把「美麗中國」納入了社會主義現代化強國目標，把「生態文明」納入「五位一體」的總體佈局，將「綠色」納入新發展理念；到十九大把「人與自然和諧共生」納入新時代堅持和發展中國特色社會主義的基本方略，把「污染防治」納入三大攻堅戰；再到總書記的二十大報告再次重點強調了生態保護的重要性，要求推進美麗中國的建設，統籌產業結構的調整、污染治理和生態保護，要更深入推進環境污染防治，持續深入打好藍天、碧水、淨土的保衛戰。從我們國家的戰略部署看，中國生態文明建設的佈局將會更加完善，政策體系也會更加成熟，未來很長一段時間內，我們可做，該做和要做的事情還有很多。



## Chairman's Statement (Continued)

### 主席報告書(續)

The year 2023 is the first year to fully implement the spirit of the 20th National Congress of the Communist Party of China, and is also a crucial year for the implementation of the "14th Five-Year Plan". Against the backdrop of the high-quality development of environmental governance and the construction of a beautiful China, the needs of "pollution abatement and carbon reduction" has ushered in a "big era" of environmental protection. The industrial scope is extending from terminal governance to the whole process of pollution abatement, carbon reduction and clean production, thus realizing the full coverage of the whole chain of pollution control, resource utilization, energy saving and carbon reduction and ushering in a new round of development opportunities in the industry. Capitalizing on the results we have already achieved, we will focus on increasing the scale of new business areas, accelerating business transformation, and implement every strategic deployment in a practical and meticulous way. As such, we will build the solid foundation with a stable income, and further develop our business as the alternative and supporting bases for the medium and long-term.

The support and caring of our investors are essential to our development and progress. I hereby express my heartfelt thanks to our investors, customers, employees and partners for their trust. I hope you will join us on the road ahead to witness our growth and excellence.

**Zeng Zhijun**

*Chairman and Chief Executive Officer*

24 March 2023

2023年是全面貫徹落實黨的二十大精神的開局之年，是實施「十四五」規劃承上啟下的攻堅之年，是生態環保產業變革持續深化的一年。在環境治理高質量發展和建設美麗中國背景下，「減污降碳」開啟環保「大時代」，產業範疇正在從末端治理向全過程減污降碳和清潔生產延伸，實現污染治理、資源利用、節能降碳等全鏈條全覆蓋，產業迎來新一輪發展機遇，我們將乘勝追擊，重點提升新業務領域的規模，加快推進業務轉型，做深做實做細每一項戰略部署，紮紮實實穩固盈利「基本盤」，全面建設中長期的「替代盤」及「支撐盤」。

我們的發展與進步，離不開各位投資人的支持與愛護。在此，謹向我們的投資人、客戶、員工、合作夥伴表示由衷的感謝，感謝大家的信任。也非常希望各位能在未來的道路上與我們攜手同行，見證成長和卓越。

**曾之俊**

*主席*

*行政總裁*

2023年3月24日

## Company Profile

### 公司簡介

The Group is committed to becoming a world-class comprehensive group in the environmental protection industry and a service provider of intelligent green housekeeping. The Company was successfully listed on the Main Board of the Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”) on 16 March 2018 (stock code: 2377). The Group provides comprehensive one-stop environmental protection and energy saving services to large-scale industrial customers in energy, chemical and manufacturing industries, by mainly engaging in the businesses of flue gas treatment, water treatment, hazardous and solid waste treatment/disposal, dual-carbon energy saving and new energy. Leveraging on its solid experience and professional capabilities in research and development and design, construction and implementation, operation and management of environment pollution prevention and control, the Group has helped its clients to greatly reduce pollutant emissions and effectively improve their production efficiencies, making remarkable contributions to the improvement of air quality and environment quality, the development of green economy and sustainability.

During the Reporting Period, the Group steadily promoted the continuous development of various business segments and achieved substantial breakthroughs in business diversification, resulting in new contracts with an accumulated value of approximately RMB1,519 million. The Company has always been deeply exploiting the remaining market in the power industry and actively exploring the non-electricity market, and has successively obtained large orders for flue gas treatment in coal power, steel, electrolytic aluminum and other industries. The water treatment business segment has made further achievements by entering into an EPC project contract with Shandong Bohui Paper Co., Ltd., a subsidiary of APP China Group Limited, for the sewage treatment and upgrading of pulp and paper manufacturing, successfully opening up the sewage treatment market in the paper industry. The Company has also actively deployed the hazardous and solid waste treatment/disposal business, and invested in the construction of the Hazardous Waste Packaging Comprehensive Utilization Project of Qinghai Boqi, which is expected to further open up the hazardous and solid waste treatment/disposal market. In respect of the Company’s dual-carbon energy saving business, the CDQ Project of Tianjin Iron Plant has been officially put into operation and will bring a stable income source for the Company in the medium and long term, laying a foundation for further penetrating into the market. The Group has established an industrial layout based on the flue gas treatment business to jointly develop water treatment, hazardous and solid waste treatment/disposal and dual-carbon energy saving and new energy+ business, fostering a new business model with the diversified development of the businesses of flue gas, water, solid waste, dual-carbon energy saving and new energy+, and ushering in a new dimension for the Group. In the future, taking advantage of the favorable policies in the industry, the Group will continue to promote the expansion of various business segments in an orderly manner and take initiatives to carry out strategic cooperation and investment, merger and acquisition in various fields in a timely manner to further the development of the Group.

本集團致力於打造成為國際一流的綜合性環保產業集團及智能型環保管家服務提供商。本公司於2018年3月16日成功在香港聯合交易所有限公司（「聯交所」）主板上市（股票代碼：2377）。本集團向大型能源、化工及製造業等工業客戶提供環保及節能綜合性一站式服務，主要從事煙氣治理、水處理、危固廢處理處置、雙碳節能及新能源業務。本集團憑藉其在環境污染治理上研發與設計、建設與運行、經營與管理的豐富經驗及專業能力，大大降低污染物的排放量並有效提高客戶生產效率，為改善空氣質量、環境質量、發展綠色經濟和可持續發展做出了傑出貢獻。

於報告期內，本集團穩步推進各業務板塊持續發展，業務多元化取得實質性突破，累計新訂約合同額約人民幣1,519百萬元。公司始終深挖電力行業的剩餘市場並積極開拓非電領域市場，相繼取得了煤電、鋼鐵、電解鋁等行業的煙氣治理大單。水處理業務領域再創佳績，與APP（中國）集團旗下山東博匯紙業股份有限公司簽訂製漿造紙污水處理改造EPC項目合同，成功打開了造紙行業污水處理業務市場。公司積極佈局危固廢處理處置業務，投資建設了青海博奇危險廢舊包裝物綜合利用項目，有望進一步打開危固廢處理處置業務市場。公司雙碳節能業務天津鐵廠幹熄焦工程項目已於2022年度正式投產，中長期內將為公司帶來穩定的收入來源，為進一步打開市場奠定基礎。本集團構建了以煙氣治理業務為基礎，共同發展水處理、危固廢處理處置及雙碳節能和新能源+業務的產業格局，形成氣+水+固+雙碳新能源+業務多元化發展新局面。未來，本集團將繼續有序推進各業務板塊拓展，適時開展各領域的戰略合作與投資併購業務，藉助行業政策紅利，使集團發展更進一步。





## Directors and Senior Management

### 董事及高級管理層

#### DIRECTORS

The Board currently consists of eight Directors, comprising one executive Director, four non-executive Directors and three independent non-executive Directors. The following table sets forth information regarding the Directors.

#### 董事

董事會現有八位董事，包括一位執行董事、四位非執行董事及三位獨立非執行董事。下表載列有關董事的資料。

Name 姓名	Age 年齡	Position 職位	Date of Appointment as Director 獲委任為董事日期
<b>Executive Director</b> 執行董事			
Mr. Zeng Zhijun 曾之俊先生	52	Chairman of the Board, executive Director and chief executive officer 董事會主席、執行董事及行政總裁	30 January 2015 2015年1月30日
<b>Non-executive Directors</b> 非執行董事			
Mr. Cheng Liqun Richard 程里全先生	57	Non-executive Director (Redesignated from executive Director to non-executive Director with effect from 24 March 2023) 非執行董事(自2023年3月24日起由執行 董事調任為非執行董事)	30 January 2015 2015年1月30日
Mr. Zheng Tony Tuo 鄭拓先生	54	Non-executive Director 非執行董事	30 January 2015 2015年1月30日
Mr. Zhu Weihang 朱偉航先生	36	Non-executive Director 非執行董事	9 January 2017 2017年1月9日
Mr. Chen Xue 陳學先生	56	Non-executive Director 非執行董事	9 January 2017 2017年1月9日
<b>Independent non-executive Directors</b> 獨立非執行董事			
Mr. Liu Genyu 劉根鈺先生	59	Independent non-executive Director 獨立非執行董事	28 February 2018 2018年2月28日
Dr. Xie Guozhong 謝國忠博士	62	Independent non-executive Director 獨立非執行董事	28 February 2018 2018年2月28日
Mr. Lu Zhifang 陸志芳先生	69	Independent non-executive Director 獨立非執行董事	28 February 2018 2018年2月28日

## Directors and Senior Management (Continued)

## 董事及高級管理層 (續)

## EXECUTIVE DIRECTOR

**Mr. Zeng Zhijun (曾之俊) (“Mr. Zeng”)**, aged 52, is the chairman of the Board, an executive Director, the chief executive officer, the chairman of the nomination committee (the “**Nomination Committee**”) and a member of the remuneration committee (the “**Remuneration Committee**”) of the Company. Mr. Zeng is responsible for the overall management and operation of the Group. Mr. Zeng was appointed to the Board on 30 January 2015. Mr. Zeng joined the Group in June 2004 serving as a director of Beijing Boqi Electric Power SCI-TECH Co., Ltd.\* (北京博奇電力科技有限公司) (“**Beijing Boqi**”), the major operating subsidiary of the Group, and served as the vice chairman of Beijing Boqi from June 2007 to March 2021. Mr. Zeng currently serves as the chairman and general manager of Beijing Boqi. Mr. Zeng served as the chairman of Beijing Horizon Media Group Inc.\* (北京華亞和訊科技有限公司) from December 2002 to October 2004.

Mr. Zeng graduated from Beijing Institute of Technology (北京理工大學) with a bachelor’s degree in computer science and engineering in July 1992. Mr. Zeng received a master’s degree in business administration from Massachusetts Institute of Technology in June 2001. Mr. Zeng was awarded the degree of Doctor of Management from The Hong Kong Polytechnic University on 3 November 2010.

Since February 2005, Mr. Zeng has served as a director of Richinfo Technology Co., Ltd.\* (彩訊科技股份有限公司) (formerly known as Shenzhen Richinfo Technology Co., Ltd.\* (深圳市彩訊科技有限公司)) (a listed company on the Shenzhen Stock Exchange since 23 March 2018, stock code: 300634.SZ), a company that provides mobile Internet technology services in the People’s Republic of China (the “**PRC**” or “**China**”). Save as disclosed above, Mr. Zeng did not hold directorships in any public listed companies in the last three years.

## 執行董事

曾之俊先生(「曾先生」)，52歲，董事會主席、執行董事、行政總裁、本公司提名委員會(「提名委員會」)主席及薪酬委員會(「薪酬委員會」)成員。曾先生負責本集團整體管理及運營。曾先生於2015年1月30日獲委任加入董事會。曾先生於2004年6月加入本集團，擔任本集團主要營運附屬公司北京博奇電力科技有限公司(「北京博奇」)的董事，於2007年6月至2021年3月擔任北京博奇的副董事長。曾先生目前擔任北京博奇的董事長兼總經理。於2002年12月至2004年10月，曾先生擔任北京華亞和訊科技有限公司董事長。

曾先生於1992年7月獲得北京理工大學計算機科學及工程學士學位。曾先生於2001年6月獲得麻省理工學院工商管理碩士學位。曾先生於2010年11月3日獲授香港理工大學管理學博士學位。

自2005年2月起，曾先生擔任彩訊科技股份有限公司(前稱深圳市彩訊科技有限公司，一間自2018年3月23日起於深圳證券交易所上市的公司(股票代碼：300634.SZ)董事，該公司於中華人民共和國(「中國」)提供移動互聯網技術服務。除上文所披露者外，曾先生在過去三年並無於任何上市公司擔任董事職務。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

#### NON-EXECUTIVE DIRECTORS

**Mr. Cheng Liquan Richard (程里全 (“Mr. Cheng”))**, aged 57, is a non-executive Director. Mr. Cheng was appointed to the Board on 30 January 2015, and has redesignated as a non-executive Director on 24 March 2023.

Mr. Cheng joined the Group serving as a director of Beijing Boqi on 15 June 2005. Mr. Cheng served as the chairman of the board of Beijing Boqi from December 2007 to December 2020 and served as its chief executive officer from December 2009 to February 2017. Mr. Cheng currently serves as the general manager of Zhejiang Boqi Electric Power SCI-TECH Co., Ltd.\* (浙江博奇電力科技有限公司) and Anhui Nengda Fuel Co., Ltd\* (安徽能達燃料有限公司). Prior to joining the Group, Mr. Cheng held various positions at Bit Technology Holding Co., Ltd\* (比特科技控股股份有限公司), a company that was principally engaged in the wholesale of spare parts for power plants, from April 2000 to March 2003, including deputy manager, general manager, the chairman of the board and a director. Mr. Cheng has been a director of Ningbo Bonded Area Jiujiu Leasing Co. Ltd.\* (寧波保稅區久久租賃有限公司) (previously known as Ningbo Huaneng Leasing Co. Ltd.\* (寧波華能租賃有限公司)) (“**Ningbo Leasing**”) from 2004 to 2007.

Mr. Cheng graduated from Fudan University with a bachelor’s degree in political economy in July 1987.

From June 2010 to September 2014, Mr. Cheng served as a director of Wuhan Boch Jaco Environmental Co., Ltd\* (武漢博奇玉宇環保股份有限公司) (National Equities Exchange and Quotations Stock Code: 831100). From August 2011 to March 2017, Mr. Cheng was a director of Shanghai ZJ Bio-Tech Co., Ltd\* (上海之江生物科技股份有限公司) (National Equities Exchange and Quotations Stock Code: 834839). Since 28 November 2019, Mr. Cheng has served as the chairman of the board of directors and an executive director of China Nature Energy Technology Holdings Limited (listed on the main board of the Stock Exchange, stock code: 1597). Save as disclosed above, Mr. Cheng did not hold directorships in any listed public companies in the last three years.

#### 非執行董事

程里全先生(「程先生」)，57歲，為非執行董事。程先生於2015年1月30日獲委任加入董事會，並於2023年3月24日調任為非執行董事。

程先生於2005年6月15日加入本集團，擔任北京博奇的董事。程先生於2007年12月至2020年12月擔任北京博奇的董事會主席，於2009年12月至2017年2月間亦擔任北京博奇的行政總裁。程先生目前亦擔任浙江博奇電力科技有限公司及安徽能達燃料有限公司的董事。加入本集團前，程先生自2000年4月至2003年3月於主要從事批發發電廠備件的比特科技控股股份有限公司擔任多個職務，包括副經理、總經理、董事會主席及董事。程先生自2004年至2007年為寧波保稅區久久租賃有限公司(「寧波租賃」，前稱寧波華能租賃有限公司)的董事。

程先生於1987年7月獲得復旦大學政治經濟學士學位。

於2010年6月至2014年9月，程先生於武漢博奇玉宇環保股份有限公司(全國中小企業股份轉讓系統股份號碼：831100)擔任董事。自2011年8月起至2017年3月，程先生為上海之江生物科技股份有限公司(全國中小企業股份轉讓系統股份號碼：834839)的董事。自2019年11月28日起，程先生於中國納泉能源科技控股有限公司(聯交所主板股票代碼：1597)擔任董事會主席兼執行董事。除上文所披露者外，程先生在過去三年並無於任何上市公司擔任董事職務。

## Directors and Senior Management (Continued)

### 董事及高級管理層 (續)

**Mr. Zheng Tony Tuo (鄭拓) (“Mr. Zheng”)**, aged 54, is a non-executive Director and a member of the audit committee of the Company (the “**Audit Committee**”). Mr. Zheng was appointed to the Board on 30 January 2015. Mr. Zheng does not hold any other position with the members of the Group.

From May 2011 to August 2016, Mr. Zheng served as a director of CITIC Securities International Asset Management Limited (中信証券國際資產管理有限公司), a private company incorporated in Hong Kong. In 2008, Mr. Zheng established MTP Capital Limited, a company that provides investment related consulting services, where he is mainly responsible for the overall management and operation of the company. From September 2000 to March 2010, Mr. Zheng was a director of Compass Venture (China) Limited, a private company incorporated in Hong Kong.

Mr. Zheng received a bachelor's degree in science from McMaster University in Canada in June 1992.

Mr. Zheng did not hold directorships in any public listed companies in the last three years.

**Mr. Zhu Weihang (朱偉航) (“Mr. Zhu”)**, aged 36, is a non-executive Director. Mr. Zhu was appointed to the Board on 9 January 2017. Mr. Zhu does not hold any other position with the members of the Group.

鄭拓先生(「鄭先生」)，54歲，為非執行董事及本公司審核委員會(「審核委員會」)成員。鄭先生於2015年1月30日獲委任加入董事會。鄭先生並無於本集團成員公司擔任任何其他職務。

於2011年5月至2016年8月期間，鄭先生擔任中信証券國際資產管理有限公司(一間於香港註冊成立的私人公司)之董事。鄭先生於2008年創辦MTP Capital Limited，該公司提供投資相關諮詢服務，彼主要負責該公司整體管理及營運。於2000年9月至2010年3月期間，鄭先生擔任Compass Venture (China) Limited(一間於香港註冊成立的私人公司)之董事。

鄭先生於1992年6月獲得加拿大麥克馬斯特大學理學學士學位。

鄭先生在過去三年並無於任何上市公司擔任董事職務。

朱偉航先生(「朱先生」)，36歲，為非執行董事。朱先生於2017年1月9日獲委任加入董事會。朱先生並無於本集團成員公司擔任任何其他職務。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

Mr. Zhu is currently the chairman of Guangdong Pearl River Investment Co., Ltd.\* (廣東珠江投資股份有限公司), where he is fully responsible for the company's strategic planning, major investment and production management. Mr. Zhu has been working at Guangdong Pearl River Investment Co., Ltd.\* (廣東珠江投資股份有限公司) since September 2008, where he has held various positions in its different branch companies. From September 2008 to September 2011, Mr. Zhu worked at the Guangdong Pearl River Investment Co., Ltd. Finance Management Center\* (廣東珠江投資股份有限公司融資管理中心) where he held positions as a financing chief executive, assistant to the director, deputy director and director. From October 2011 to September 2012, Mr. Zhu worked at the North China branch office of Guangdong Pearl River Investment Co., Ltd. (廣東珠江投資股份有限公司) as the deputy general manager and the standing deputy general manager.

Mr. Zhu graduated from Sun Yat-sen University (中山大學) with a bachelor's degree in finance in June 2012.

Mr. Zhu did not hold directorships in any public listed companies in the last three years.

**Mr. Chen Xue (陳學) ("Mr. Chen")**, aged 56, is a non-executive Director. Mr. Chen was appointed to the Board on 9 January 2017. Mr. Chen does not hold any other position with the members of the Group.

朱先生現任廣東珠江投資股份有限公司董事長，全面負責公司戰略規劃、重大投資和生產經營管理等工作。朱先生自2008年9月起於廣東珠江投資股份有限公司任職並於不同的分公司擔任多個職位。於2008年9月至2011年9月，朱先生於廣東珠江投資股份有限公司融資管理中心任職，擔任融資事務主管、總監助理、副總監及總監。於2011年10月至2012年9月，朱先生於廣東珠江投資股份有限公司華北地區公司任職，擔任副總經理及常務副總經理。

朱先生於2012年6月自中山大學畢業，獲金融學學士學位。

朱先生在過去三年並無於任何上市公司擔任董事職務。

**陳學先生(「陳先生」)**，56歲，為非執行董事。陳先生於2017年1月9日獲委任加入董事會。陳先生並無於本集團成員公司擔任任何其他職務。

**Directors and Senior Management (Continued)****董事及高級管理層 (續)**

Mr. Chen has served as deputy general manager of the finance department of Sinopec Group (中國石油化工集團公司) since December 2019. From January 2018 to December 2019, Mr. Chen was the deputy head of the capital operation department of Sinopec Group (中國石油化工集團公司) and deputy general manager of Asset Operation and Management Company Limited (資產經營管理有限公司) under Sinopec Group, mainly responsible for capital operation, safety and environmental protection management. From March 2001 to January 2018, Mr. Chen was the deputy division chief and division chief of various departments and divisions of Sinopec Group (中國石油化工集團公司) including the restructuring department, department of enterprise reform, operation management department of refining and chemical enterprises, capital operation department and the asset management company. Mr. Chen worked at China Sinopec Great Wall Lubricating Oil Limited (中國石化長城潤滑油公司) (an integrated lubricating oil service provider in the PRC) from July 1989 to March 2001. In 2013, Mr. Chen was recognized as professor-level senior economist by the Senior Professional Technical Qualification Appraisal Committee of Sinopec Group (中國石油化工集團公司).

Mr. Chen received his bachelor's degree in petroleum processing from East China College of Chemistry and Technology (華東化工學院) (now known as East China University of Science and Technology (華東理工大學)) in July 1989. Mr. Chen received his master's degree in management from Renmin University of China (中國人民大學) in June 2001.

Mr. Chen did not hold directorships in any listed public companies in the last three years.

自2019年12月，陳先生擔任中國石油化工集團公司財務部副總經理。自2018年1月至2019年12月，陳先生擔任中國石化集團公司資本運營部副主任、中國石化集團資產經營管理有限公司副總經理，主要負責資本運作、安全環保管理工作。自2001年3月至2018年1月，陳先生為中國石油化工集團公司多個部門及分部的副處長及處長，包括重組辦、企業改革部、煉化企業經營部、資本運營部及資產管理公司。陳先生於1989年7月至2001年3月於中國石化長城潤滑油公司(中國綜合潤滑油服務提供商)任職。於2013年，陳先生獲中國石油化工集團公司高級專業技術職務任職資格評審委員會評選為教授級高級經濟師。

陳先生於1989年7月獲華東化工學院(現稱華東理工大學)石油加工學士學位。於2001年6月，陳先生獲中國人民大學企業管理學碩士學位。

陳先生在過去三年並無於任何上市公司擔任董事職務。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

#### INDEPENDENT NON-EXECUTIVE DIRECTORS

**Mr. Liu Genyu (劉根鈺) (“Mr. Liu”)**, aged 59, is an independent non-executive Director and a member of the Remuneration Committee and Audit Committee. He was appointed to the Board on 28 February 2018. Mr. Liu does not hold any other position with the members of the Group.

Mr. Liu currently serves as an executive director and was served as vice chairman and joint chief executive officer of the board of directors of China Nuclear Energy Technology Corporation Limited (中國核能科技集團有限公司), a listed company on the Stock Exchange (stock code: 611) engages in EPC operations and consulting services, solar power generation operations and financing operations. Mr. Liu served as an executive director and the vice chairman of GCL New Energy Holdings Limited from 7 December 2020 to 9 September 2022, which is a company listed on the Stock Exchange (stock code: 451) mainly engaging in the sales of electric power and the development, construction, operation and management of photovoltaic power stations.

Mr. Liu has extensive experience in project development, commercial negotiation and operational management in the electric power industry. During the period from May 2007 to December 2012, Mr. Liu was the chief executive officer as well as an executive director, a member of the executive committee and the authorized representative of China Power New Energy Development Company Limited (中國電力新能源發展有限公司), a Stock Exchange listed company (stock code: 735) that engages in developing, constructing, owning, operating and managing clean energy power plants. Prior to that, Mr. Liu served as the vice president of Chongqing Jiulong Electric Power Co., Ltd\* (重慶九龍電力股份有限公司) (principally engaged in electric power production), a company listed on the Shanghai Stock Exchange (stock code: 600292), and he was mainly responsible for construction projects and market management.

#### 獨立非執行董事

**劉根鈺先生(「劉先生」)**，59歲，為獨立非執行董事及薪酬委員會及審核委員會成員。彼於2018年2月28日獲委任加入董事會。劉先生並無於本集團成員公司擔任任何其他職務。

劉先生現為中國核能科技集團有限公司的執行董事，及曾任該公司董事會副主席及聯席行政總裁。該公司為一間聯交所上市公司(股份代號：611)，從事EPC業務及諮詢服務、太陽能發電業務及融資業務。劉先生於2020年12月7日至2022年9月9日擔任協鑫新能源控股有限公司的執行董事及副董事長。該公司為一間聯交所上市公司(股份代號：451)，主要業務為電力銷售、光伏發電站之開發、建設、經營及管理。

劉先生於電力行業的項目開發、商務談判及營運管理擁有豐富的經驗。劉先生於2007年5月至2012年12月期間在中國電力新能源發展有限公司(一間從事開發、建造、擁有、營運和管理潔淨能源發電廠業務的聯交所上市公司，股份代號：735)工作，擔任行政總裁、執行董事、執行委員會成員和授權代表。在此之前，劉先生出任重慶九龍電力股份有限公司(一間於上海證券交易所上市並主要從事發電業務的公司，股票代碼：600292)的副總裁，主要負責建造項目及市場管理。

## Directors and Senior Management (Continued)

## 董事及高級管理層 (續)

Mr. Liu received his bachelor's degree in industrial electric automation from Harbin Institute of Technology in June 1991. Mr. Liu was awarded an executive master's degree in business administration (EMBA) from Tsinghua University in July 2005.

Save as disclosed above, Mr. Liu did not hold directorships in any listed public companies in the last three years.

**Dr. Xie Guozhong (謝國忠) (“Dr. Xie”)**, aged 62, is an independent non-executive Director, the chairman of the Audit Committee and a member of the Nomination Committee. He was appointed to the Board on 28 February 2018. Dr. Xie does not hold any other position with the members of the Group.

Dr. Xie is an independent economist based in the PRC and is a columnist for publications including South China Morning Post, The New Century Weekly (renamed as Caixin) and Bloomberg where he published his articles analyzing and consulting on global economics and financial markets. Dr. Xie was named as one of the “50 most influential persons in finance” by Bloomberg in 2013. Dr. Xie has 20 years expertise in financial services and has extensive financial management experience in the fields of corporate finance. From December 2007 to December 2010, Dr. Xie served as an independent non-executive director of Shenzhen Development Bank Co., Ltd\* (深圳發展銀行股份有限公司), which was listed on the Shenzhen Stock Exchange (stock code: 000001). Dr. Xie worked for Morgan Stanley from July 1997 to September 2006 and held the role of managing director. He was working in the capacity of a managing director in the research division of Morgan Stanley in Hong Kong before his departure. Prior to joining Morgan Stanley, Dr. Xie worked for Macquarie Bank in Singapore as an associate director from 1995 to 1997. Since June 2022, Dr. Xie has served an independent director of Richinfo Technology Co., Ltd. (彩訊科技股份有限公司) (formerly known as Shenzhen Richinfo Technology Co., Ltd. (深圳市彩訊科技有限公司), a listed company on the Shenzhen Stock Exchange since 23 March 2018, stock code: 300634. SZ), a company that provides mobile Internet technology services in China.

劉先生於1991年6月獲得哈爾濱工業大學工業電氣自動化學士學位，並於2005年7月獲得清華大學高級管理人員工商管理碩士學位(EMBA)。

除上文所披露者外，劉先生在過去三年內並無於任何上市公司擔任董事職務。

**謝國忠博士(「謝博士」)**，62歲，為獨立非執行董事、審核委員會主席及提名委員會成員。彼於2018年2月28日獲委任加入董事會。謝博士並無於本集團的成員公司擔任任何其他職務。

謝博士為中國獨立經濟學家，且為《南華早報》、《新世紀》周刊(更名《財新》)及彭博新聞社的專欄作家。彼於彭博新聞社刊載分析及討論全球經濟及金融市場的文章。謝博士於2013年獲得彭博新聞社提名為財經界「50位最具影響力人物」之一。謝博士於金融服務方面擁有20年的專業知識並於企業融資領域亦有豐富的財務管理經驗。於2007年12月至2010年12月，謝博士擔任深圳發展銀行股份有限公司(於深圳證券交易所上市，股票代碼：000001)的獨立非執行董事。謝博士於1997年7月至2006年9月任職摩根士丹利，擔任董事總經理。彼於離任前擔任摩根士丹利香港研究部董事總經理。於加入摩根士丹利前，謝博士自1995年至1997年於新加坡麥格理銀行擔任聯席董事。自2022年6月起，謝博士擔任彩訊科技股份有限公司(前稱深圳市彩訊科技有限公司，一間自2018年3月23日起於深圳證券交易所上市的公司(股票代碼：300634.SZ))獨立董事，該公司於中國提供移動互聯網技術服務。





## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

Dr. Xie received his master's degree of science in transportation and a PhD in Philosophy (in the field of economics) from Massachusetts Institute of Technology in September 1987 and June 1990, respectively.

Save as disclosed above, Dr. Xie did not hold directorships in any listed public companies in the last three years.

**Mr. Lu Zhifang (陸志芳) (“Mr. Lu”)**, aged 69, is an independent non-executive Director, the chairman of the Remuneration Committee and a member of the Nomination Committee. He was appointed to the Board on 28 February 2018. Mr. Lu does not hold any other position with the members of the Group.

Mr. Lu is a registered lawyer in China, and is currently a senior partner of East & Concord Partners (北京天達共和律師事務所). Mr. Lu was a senior partner of Haiwen Law Firm (海問律師事務所) from 1994 to 2008 and a partner of Beijing Hylands Law Firm (北京浩天信和律師事務所) from 2009 to 2014. Mr. Lu also has more than 20 years experience in international commercial arbitration, which, among others, he served as an arbitrator of China International Economic and Trade Arbitration Commission. From 1991 to 1994, Mr. Lu worked at the law school of University of International Business and Economics as an associate professor, and served as deputy director of the International Economic Law Department of University of International Business and Economics from 1986 to 1994.

Mr. Lu graduated from Beijing University of International Business and Economics (北京對外貿易學院) with a diploma in English in January 1978, and received his master's degree in laws from the University of California in December 1983.

Mr. Lu did not hold directorships in any listed public companies in the last three years.

於1987年9月及1990年6月，謝博士分別取得麻省理工學院的交通運輸學碩士學位及哲學(經濟學領域)博士學位。

除上文所披露者外，謝博士在過去三年並無於任何上市公司擔任董事職務。

陸志芳先生(「陸先生」)，69歲，為獨立非執行董事、薪酬委員會主席及提名委員會成員。彼於2018年2月28日獲委任加入董事會。陸先生並無於本集團的成員公司擔任任何其他職務。

陸先生為中國註冊律師，現為北京天達共和律師事務所資深合夥人。陸先生於1994到2008年為海問律師事務所資深合夥人，2009年到2014年為北京浩天信和律師事務所合夥人。陸先生於國際商事仲裁擁有逾20年經驗，曾擔任過中國國際經濟貿易仲裁委員會的仲裁員。陸先生於1991年至1994年期間在對外經濟貿易大學法學院擔任副教授，並曾於1986年至1994年任對外經貿大學國際經濟法系副主任。

陸先生於1978年1月獲得北京對外貿易學院英文文憑，及於1983年12月獲得加利福尼亞大學法律碩士學位。

陸先生在過去三年並無於任何上市公司擔任董事職務。

## Directors and Senior Management (Continued)

## 董事及高級管理層 (續)

## SENIOR MANAGEMENT

## 高級管理層

The following table presents certain information concerning the senior management of our Group.

下表呈列有關本集團高級管理層人員的若干資料。

Name 姓名	Age 年齡	Year Joined 加入年份	Position 職位
Ms. Qian Xiaoning (錢曉寧) 錢曉寧女士	49	2007 2007年	Senior Vice president, Board secretary and joint company secretary 高級副總裁、董事會秘書兼聯席公司秘書
Ms. Cao Xiaoping (曹曉萍) 曹曉萍女士	69	2008 2008年	Vice president 副總裁
Mr. Yan Bingli (顏炳利) 顏炳利先生	59	2004 2004年	Vice president 副總裁
Mr. Lu Jing (陸景) 陸景先生	61	2011 2011年	Vice president 副總裁
Ms. Yan Zhilian (閻芝蓮) 閻芝蓮女士	64	2004 2004年	Vice president 副總裁
Ms. Wang Hui (王慧) 王慧女士	45	2019 2019年	Vice president and chief financial officer 副總裁兼財務總監
Mr. Yan Bo (顏波) 顏波先生	44	2022 2022年	Vice president 副總裁
Mr. Sun Liwen (孫禮文) 孫禮文先生	46	2004 2004年	Vice president and the director of design institute 副總裁兼設計院院長

**Ms. Qian Xiaoning (錢曉寧) (“Ms. Qian”)**, aged 49, is the senior vice president, Board secretary and joint company secretary of the Company and joined the Group in February 2007. Ms. Qian is primarily responsible for managing human resources, legal compliance issues, development of new business segments and Board matters. Since joined the Group, Ms. Qian has held various positions including general manager of legal department, general manager of Environmental Remediation Department, Board secretary, vice president and senior vice president of Beijing Boqi. Ms. Qian is also a director of Beijing Bosheng Environmental SCI-TECH Co., Ltd.\* (北京博聖環保科技有限公司), the supervisor of Shanxi Puzhou Boqi Environmental Technology Co., Ltd.\* (山西蒲州博奇環保科技有限公司) (“**Puzhou Boqi**”), Shanxi Hejin Boqi Environmental Technology Co., Ltd.\* (山西河津博奇環保科技有限公司) (“**Hejin Boqi**”) and Jiangxi Jinggangshan Boqi Environmental Technology Co., Ltd. (“**Jinggangshan Boqi**”), the general manager of Shanxi Bo Yuan Qi Cheng Environmental Equipment Service Co., Ltd.\* (山西博源奇晟環保設備服務有限公司) (“**Shanxi Bo Yuan**”) and a director of Beijing Boqi Tianqi Environmental Protection Technology Co., Ltd.\* (北京博奇天啟環保科技有限公司).

錢曉寧女士(「錢女士」), 49歲, 為本公司高級副總裁、董事會秘書兼聯席公司秘書並於2007年2月加入本集團。錢女士主要負責人力資源管理、法律合規事宜、新業務領域開發及董事會事宜。錢女士自加入本集團以來歷任北京博奇的多個職位, 包括法律部總經理、環境修復部總經理、董事會秘書、副總裁及高級副總裁。錢女士亦為北京博聖環保科技有限公司之董事、山西蒲州博奇環保科技有限公司(「**蒲州博奇**」)、山西河津博奇環保科技有限公司(「**河津博奇**」)、江西井岡山博奇環保科技有限公司(「**井岡山博奇**」)之監事、山西博源奇晟環保設備服務有限公司(「**山西博源**」)之總經理及北京博奇天啟環保科技有限公司之董事。

## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

Prior to joining the Group, Ms. Qian was a securities transaction representative (證券事務代表) of Yongyou Network Technology Co., Ltd. (用友網絡科技股份有限公司) (previously known as 用友軟件股份有限公司, a listed company on the Shanghai Stock Exchange, stock code: 600588), an enterprise management software and cloud service provider in the PRC, from 2001 to February 2007. During the time from July 1996 to August 1997, Ms. Qian worked at the legal department of CITIC Group (previously known as China International Trust Investment Corporation).

Ms. Qian graduated from China University of Political Science and Law in July 1996 with a bachelor's degree in economic law. Ms. Qian obtained a master's degree in economic law from China University of Political Science and Law in June 2006 and a master's degree in business administration from Chinese University of Hong Kong in December 2010.

Ms. Qian did not hold directorships in any listed public companies in the last three years.

**Ms. Cao Xiaoping (曹曉萍) (“Ms. Cao”)**, aged 69, is the vice president of the Company. Ms. Cao joined the Group in June 2008. From March 2010 to March 2022, Ms. Cao concurrently served as the chief financial officer of the Group.

Ms. Cao is primarily responsible for customer relationship management and market development of the Group. Ms. Cao also serves as a director of Shanxi Bo Yuan, a director of Beijing Boqi Environmental Remediation Tech Co. Ltd.\* (北京博奇環境修復科技有限公司) and a director of Guo Neng Long Yuan Boqi Environmental Technology (Han Chuan) Co., Ltd.\* (國能龍源博奇環保科技(漢川)有限公司).

Ms. Cao has over 30 years of experience in accounting and financial management. Prior to joining the Group, Ms. Cao served as the chief accountant of Angang Construction Consortium Co., Ltd (鞍鋼建設集團有限公司) from November 2000 to June 2008. Ms. Cao was the deputy section chief (副科長) of the finance department of Ansteel Group Corporation (鞍鋼集團) and later served as the deputy director and director from February 1985 to November 2000.

於加入本集團之前，錢女士於2001年至2007年2月期間擔任用友網絡科技股份有限公司(前稱用友軟件股份有限公司，一家於上海證券交易所上市的公司，股份代碼：600588)的證券事務代表。該公司是中國企業管理軟件和雲端服務提供商。錢女士於1996年7月至1997年8月期間於中國中信集團(前稱國際信託投資公司)的法律部任職。

錢女士於1996年7月畢業於中國政法大學，持有經濟法學士學位。錢女士於2006年6月獲得中國政法大學經濟法碩士學位，並於2010年12月獲得香港中文大學工商管理碩士學位。

錢女士在過去三年並無於任何上市公司擔任董事職務。

**曹曉萍女士(「曹女士」)**，69歲，為本公司副總裁。曹女士於2008年6月加入本集團。於2010年3月至2022年3月，曹女士同時擔任本集團財務總監。

曹女士主要負責本集團客戶關係管理及市場開發事宜。曹女士亦擔任山西博源之董事、北京博奇環境修復科技有限公司之董事及國能龍源博奇環保科技(漢川)有限公司之董事。

曹女士於會計及財務管理方面有逾30年經驗。於加入本集團之前，曹女士於2000年11月至2008年6月期間擔任鞍鋼建設集團有限公司之總會計師。曹女士於1985年2月至2000年11月期間擔任鞍鋼集團之財務部副科長，其後擔任副處長及處長。

## Directors and Senior Management (Continued)

### 董事及高級管理層 (續)

Ms. Cao graduated from Dongbei University of Finance and Economics (東北財經大學) with a master's degree in accounting in March 1999. She became a qualified senior accountant in the PRC in December 1997.

Ms. Cao did not hold directorship in any listed public company in the last three years.

**Mr. Yan Bingli (顏炳利) (“Mr. Yan”)**, aged 59, is the vice president of the Company and joined the Group in October 2004. Since joining the Group, Mr. Yan has held various positions including the engineer of department of engineering and the general manager of Yangcheng project, a project director, the general manager of department of operation and maintenance, the general manager of department of sales and marketing and the general manager of department of operational planning and information management of Beijing Boqi. Mr. Yan is primarily responsible for the management of the Company's engineering. Mr. Yan also serves as the chairman and a director of Beijing Boqi Environmental Remediation Tech Co. Ltd. (北京博奇環境修復科技有限公司).

Mr. Yan obtained the diploma in power engineering management in Northeast Dianli University (東北電力學院) in April 1998.

Mr. Yan did not hold directorships in any listed public companies in the last three years.

**Mr. Lu Jing (陸景) (“Mr. Lu”)**, aged 61, is the vice president of the Company and joined the Group in March 2011. Since joining the Group, Mr. Lu has held various positions including an assistant for the president and the general manager of department of information, the general manager of Jianan subcontracting department (建安分包部), the vice president and the general manager of marketing and sales center of Beijing Boqi. Mr. Lu is primarily responsible for marketing development and sales. Mr. Lu does not hold any other position with the members of the Group.

曹女士於1999年3月獲得東北財經大學會計碩士學位。曹女士於1997年12月成為中國高級會計師。

曹女士在過去三年並無於任何上市公司擔任董事職務。

**顏炳利先生 (「顏先生」)**，59歲，為本公司副總裁並於2004年10月加入本集團。自加入本集團以來，顏先生歷任北京博奇的多個職位，包括工程部工程師及陽城項目總經理、項目總監、運營和維護部總經理、市場營銷部總經理和經營計劃部和信息管理部總經理。顏先生主要負責公司工程管理。顏先生亦擔任北京博奇環境修復科技有限公司之主席及董事。

顏先生於1998年4月取得了東北電力學院電力管理工程文憑。

顏先生在過去三年並無於任何上市公司擔任董事職務。

**陸景先生 (「陸先生」)**，61歲，為本公司副總裁並於2011年3月加入本集團。自加入本集團以來，陸先生歷任北京博奇的多個職位，包括總裁助理及信息部總經理、建安分包部總經理、副總裁兼市場營銷中心總經理。陸先生主要負責市場開發及銷售。陸先生並無於本集團其他成員公司擔任任何其他職務。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

Prior to joining the Group, for the period from November 2004 to June 2010, Mr. Lu served as an assistant manager of Great Wall Computer Software & Systems Inc\* (長城計算機軟件與系統有限公司), a company mainly engaged in information safety business. Mr. Lu also served at the computer room of 57th Institute of the General Staff Council of People's Liberation Army (總參第五十七研究所電腦室) from July 1983.

Mr. Lu obtained a bachelor's degree in applied computer science from PLA Engineering Technology College (人民解放軍工程技術學院) in July 1983.

Mr. Lu did not hold directorships in any listed public companies in the last three years.

**Ms. Yan Zhilian (閻芝蓮) ("Ms. Yan")**, aged 64, vice president of the Company, joined the Group in 2004. Since she joined the Group, Ms. Yan served several positions in Beijing Boqi, such as the technical director, business manager, general manager of the cost actuary department, general manager of the technical department and assistant to the president. Ms. Yan is primarily responsible for the execution of concession operation projects of the Company. Ms. Yan is also a supervisor of Guo Neng Long Yuan Boqi Environmental Technology (Han Chuan) Co., Ltd.\* (國能龍源博奇環保科技(漢川)有限公司).

Prior to joining the Group, Ms. Yan was the department head of the construction cost department in Liaoning Tianyi Accounting Firm\* (遼寧天億會計師事務所) from October 1999 to October 2004, the department head of civil engineering projects of Liaoyang Petrochemical Fiber Company\* (遼陽石油化纖公司) from December 1985 to October 1999, and a technician of the Third Construction Company of Liaoning Province\* (遼寧省第三建築公司) from December 1977 to December 1985.

Ms. Yan obtained a bachelor's degree in industrial engineering from Fushun Petroleum Institute\* (撫順石油學院) in July 1983.

Ms. Yan did not hold any other directorships in any listed companies the last three years.

於加入本集團之前，陸先生於2004年11月至2010年6月期間擔任長城計算機軟件與系統有限公司的副經理。該公司從事信息安全業務。陸先生亦於1983年7月起於總參第五十七研究所電腦室工作。

陸先生於1983年7月獲得人民解放軍工程技術學院應用計算機科學專業學士學位。

陸先生在過去三年並無於任何上市公司擔任董事職務。

**閻芝蓮女士(「閻女士」)**，64歲，為本公司副總裁並於2004年加入本集團。自加入本集團以來，閻女士歷任北京博奇多個職位，包括技經主管、商務經理、成本精算部總經理、技經部總經理及總裁助理。閻女士主要負責本公司特許經營項目執行。閻女士亦為國能龍源博奇環保科技(漢川)有限公司之監事。

於加入本集團之前，閻女士於1999年10月至2004年10月期間擔任遼寧天億會計師事務所工程造價部負責人。閻女士於1985年12月至1999年10月期間擔任遼陽石油化纖公司土建項目負責人。閻女士自1977年12月至1985年12月期間擔任遼寧省第三建築公司技術員。

閻女士於1983年7月獲得撫順石油學院工業工程專業學士學位。

閻女士在過去三年並無於任何上市公司擔任董事職務。

**Directors and Senior Management (Continued)****董事及高級管理層 (續)**

**Ms. Wang Hui (王慧) (“Ms. Wang”)**, aged 45, the vice president and chief financial officer of the Company, joined the Group in July 2019. Ms. Wang is primarily responsible for finance and accounting, budget formulation, investment-related matters and administrative management of the Group. Ms. Wang has held various positions in Beijing Boqi since joining the Group, including the general manager of the financial management center, assistant to the president, vice president and chief financial officer. Ms. Wang has served as a supervisor of three subsidiaries of Beijing Boqi, including Laibin Boqi Environmental Protection Technology Co., Ltd. (來賓博奇環保科技有限公司), Qinghai Boqi and Beijing Boqi Tianqi Environmental Protection Technology Co., Ltd. (北京博奇天啟環保科技有限公司). Ms. Wang is also a director of Guo Neng Long Yuan Boqi Environmental Technology (Han Chuan) Co., Ltd. (國能龍源博奇環保科技(漢川)有限公司).

Prior to joining the Group, Ms. Wang was appointed as the deputy general manager of financial division of Sound Global Ltd. (桑德國際有限公司), a company listed on the Stock Exchange (stock code: 00967), in October 2014. Since May 2017, she had held management position in Sangde Group Co., Ltd. (桑德集團有限公司) (formerly known as Beijing Sangde Environmental Protection Group Co., Ltd. (北京桑德環保集團有限公司)). In August 2018, Ms. Wang was appointed as the financial head of solid waste center of TUS-sound Environmental Resources Co., Ltd. (啟迪桑德環境資源股份有限公司) (currently known as TUS Environmental Science and Technology Development Co., Ltd. (啟迪環境科技發展股份有限公司)), a company listed on Shenzhen Stock Exchange (stock code: 000826).

**王慧女士** (「王女士」), 45歲, 為本公司副總裁兼財務總監, 並於2019年7月加入本集團。王女士主要負責本集團財務及會計、預算制定、投資相關事宜及行政管理工作。王女士自加入本集團以來歷任北京博奇的多個職位, 包括財務管理中心總經理、總裁助理及副總裁兼財務總監。自2020年9月、2021年12月及2022年1月以來, 王女士分別擔任北京博奇三間附屬公司包括來賓博奇環保科技有限公司、青海博奇及北京博奇天啟環保科技有限公司監事。王女士亦為國能龍源博奇環保科技(漢川)有限公司之董事。

在加入本集團前, 王女士於2014年10月獲委任為桑德國際有限公司(聯交所上市公司, 股份代號: 00967)財務部副總經理。於2017年5月起, 彼擔任桑德集團有限公司(前稱為北京桑德環保集團有限公司)管理職位。王女士於2018年8月獲委任為啟迪桑德環境資源股份有限公司(現稱為啟迪環境科技發展股份有限公司, 深交所上市公司, 股份代號: 000826)固廢中心的財務總監。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

Ms. Wang obtained a bachelor degree in economics from Anhui University of Finance and Economics in July 2000 and a master degree in economics from Yunnan Minzu University in June 2003. She has been qualified as the intermediate economist and advanced accountant in the PRC and the certified management accountant in the United States of America since November 2004, May 2012 and March 2020, respectively.

Ms. Wang did not hold any other directorships in any listed companies the last three years.

Mr. Yan Bo (顏波) (“**Mr. Yan**”), aged 44, vice president of the Company, joined the Group in March 2022. Mr. Yan is mainly responsible for information management and qualified supplier management.

Before joining the Group, Mr. Yan served as an engineer and quality information supervisor of the Quality Department in Shanghai General Motors from July 2004 to February 2007. From February 2007 to March 2016, he served as an international sourcing supplier quality professional and supplier quality manager in Halliburton. From December 2016 to December 2019, he served as a senior quality manager and the group director of operation quality for Asia Pacific region in Wilo Group. From June 2020 to June 2021, he served as the deputy general manager of operations of Foomay Group.

Mr. Yan obtained a bachelor’s degree in automotive engineering from Tsinghua University in August 2001 and a master’s degree in mechanical engineering from Tsinghua University in July 2004.

Mr. Yan has not held any directorships in any listed companies in the past three years.

王女士於2000年7月取得安徽財經大學經濟學學士學位及於2003年6月取得雲南民族大學經濟學碩士學位。彼分別於2004年11月、2012年5月及2020年3月取得中國中級經濟師、高級會計師及美國註冊管理會計師資格。

王女士在過去三年並無於任何上市公司擔任董事職務。

顏波先生(「顏先生」)，44歲，為本公司副總裁並於2022年3月加入本集團。顏先生主要負責信息管理與合格供應商管理。

於加入本集團之前，顏先生於2004年7月至2007年2月歷任上海通用汽車質量部工程師、質量信息主管。於2007年2月至2016年3月歷任哈里伯頓國際採購供應商質量專家、供應商質量經理。於2016年12月至2019年12月歷任威樂集團高級質量經理、亞太區運營質量總監。於2020年6月至2021年6月擔任富美集團運營副總經理。

顏先生於2001年8月獲得清華大學車輛工程專業學士學位，並於2004年7月獲得清華大學機械工程專業碩士學位。

顏先生在過去三年並無於任何上市公司擔任董事職務。

## Directors and Senior Management (Continued)

### 董事及高級管理層 (續)

Mr. Sun Liwen (孫禮文) (“**Mr. Sun**”), aged 46, is the vice president of the Company and the director of the design institute. He joined the Group in December 2004. Mr. Sun is mainly responsible for the management of the design institute, the production technology department and the technical department. Since joining the Group, Mr. Sun has held various positions in Beijing Boqi, including chief engineer of technology, deputy chief engineer of the design department, deputy director and executive deputy director of the design institute, general manager of the technical department, assistant to the president and director of the design institute and vice president of the Company.

Prior to joining the Group, Mr. Sun served as the project leader of 701st Institute of CASC from August 2000 to May 2004. From May 2004 to November 2004, he served as the manager of the technical department of Beijing Sound Environmental Protection Co., Ltd.

Mr. Sun received a bachelor’s degree in mechanical and electronic engineering from Hefei University of Technology in July 2000, and was awarded the title of senior engineer in 2017.

Mr. Sun has not held any directorships in any listed companies in the past three years.

孫禮文先生(「孫先生」)，46歲，為本公司副總裁兼設計院院長，並於2004年12月加入本集團。孫先生主要負責設計院、生產技經部及技經部管理。孫先生自加入本集團以來歷任北京博奇的多個職位，包括工藝主任工程師、設計部副總工程師、設計院副院長、設計院常務副院長、技經部總經理、總裁助理兼設計院院長及副總裁。

於加入本集團之前，孫先生於2000年8月至2004年5月擔任航天701所項目負責人。於2004年5月至2004年11月擔任北京桑德環保有限公司技術部經理。

孫先生於2000年7月獲得合肥工業大學機械電子工程專業學士學位，並於2017年獲得高級工程師職稱。

孫先生在過去三年並無於任何上市公司擔任董事職務。



## Directors and Senior Management (Continued)

### 董事及高級管理層(續)

#### JOINT COMPANY SECRETARIES

**Ms. Qian Xiaoning (錢曉寧)**, aged 49, is a joint company secretary of our Company. She was appointed as the joint company secretary of the Company on 13 February 2017. Ms. Qian's biographical details are set forth in the paragraph headed "Senior Management" above.

**Ms. Wong Wai Ling (黃慧玲) ("Ms. Wong")**, is a joint company secretary of our Company. She was appointed as the joint company secretary of the Company on 13 February 2017.

Ms. Wong has over 15 years of experience in providing company secretarial services in Hong Kong. Ms. Wong currently is a vice president of SWCS Corporate Services Group (Hong Kong) Limited and is responsible for assisting listed companies in professional company secretarial work. Ms. Wong was admitted as associate of The Hong Kong Institute of Chartered Secretaries and was elected as association of The Chartered Governance Institute (formerly known as The Institute of Chartered Secretaries and Administrators) in the United Kingdom in July 2013.

Ms. Wong was awarded a bachelor's degree of Arts in Marketing and Public Relations from The Hong Kong Polytechnic University (香港理工大學) in October 2007, and obtained a master degree of Corporate Governance degree from The Open University of Hong Kong (香港公開大學) in December 2011.

#### 聯席公司秘書

**錢曉寧女士**，49歲，為本公司聯席公司秘書，於2017年2月13日獲委任為本公司聯席公司秘書。錢女士的簡歷詳情已載於上文「高級管理層」一段。

**黃慧玲女士(「黃女士」)**，為本公司聯席公司秘書，於2017年2月13日獲委任為本公司聯席公司秘書。

黃女士於香港提供公司秘書服務方面擁有逾15年經驗。黃女士現為方圓企業服務集團(香港)有限公司的總監，負責協助上市公司專業的公司秘書工作。於2013年7月，黃女士獲准加入香港特許秘書公會及英國特許公司治理公會(前稱特許秘書及行政人員公會)。

黃女士於2007年10月獲得香港理工大學市場營銷及公共關係文學士學位及於2011年12月獲得香港公開大學企業管治學碩士學位。

## Management Discussion and Analysis

### 管理層討論與分析

The Group is a green ecological governance enterprise that provides environmental governance and comprehensive services for new energy+ to industrial enterprises and cities. Our business mainly focuses on flue gas treatment, water treatment, hazardous waste treatment/disposal, dual-carbon energy saving and new energy. We are customer-oriented, with the goal of achieving carbon neutrality and meeting customer needs as our mission. We always adhere to the philosophy of “service builds trust, and professionalism creates value”, closely follow the development trend of the national environmental protection industry, and are committed to developing into a highly competitive and first-class enterprise in the country, with integrated platforms comprising “environmental protection and dual-carbon management platform, operation service technology platform, and capital investment and financing platform”, aiming to make positive contributions to the environmental protection and ecological civilization construction in the PRC and the world.

#### 1. INDUSTRY OVERVIEW

The year of 2022 is the year of the 20th National Congress of the Communist Party of China. It is also an important year for China to embark on a new journey to comprehensively build a modern socialist country and achieve the second centenary goal. Against the backdrop of fierce internal competition and increasingly complex and severe external environment, the environmental protection industry encounters an austere situation in which resources are actively integrated to improve adhesion. The pace of industry integration is accelerating, and industry competition is also intensified. The structural, deep rooted and trending pressures on ecological and environmental protection have not yet been fundamentally alleviated, and the governance of pollution problems in key regions and industries still needs to be further strengthened.

本集團是向工業企業及城市提供環境治理及新能源+綜合服務的綠色生態治理企業。業務主要聚焦在煙氣治理、水處理、危固廢處理處置、雙碳節能和新能源。我們以客戶為中心，以實現碳中和為目標，以滿足客戶需求為己任，始終秉持「服務建立信任，專業創造價值」的理念，緊跟國家環保行業發展趨勢，致力於發展成為極具競爭力的國內一流的「環保雙碳管理平台、運營服務科技平台及資本運作投融平台」三型平台，為中國乃至世界的環境保護和生態文明建設做出積極的貢獻。

#### 1. 行業概覽

2022年是黨的二十大召開之年，是我國踏上全面建設社會主義現代化國家新征程、向第二個百年奮鬥目標進軍的重要一年。在內部競爭激烈，外部環境更趨複雜嚴峻的情況下，環保行業呈現出一個積極整合資源以提高黏連性的耐寒時代。行業的整合步伐加快，行業競爭也處於白熱化狀態。生態環境保護的結構性、根源性、趨勢性壓力尚未根本緩解，重點區域、重點行業污染問題治理工作仍然有待進一步加強。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

Currently, the fast developing stage of the environmental protection industry is over, and the era of mergers and integrations has just begun. Environmental protection services are provided in the new format of industrial chain integration, digitization, intelligence, integrated development and comprehensive disposal. The competition among environmental protection enterprises has gradually shifted from the hardcore strength of “investment and engineering” to the competition of soft strength of refined management in the area of “operation and technology”. Under the new development trend, the environmental protection industry not only provides good technical support for pollution control, but also has opportunities for its own development.

On 20 January 2022, the Ministry of Industry and Information Technology, the National Development and Reform Commission and the Ministry of Ecology and Environment jointly issued the “Guiding Opinions on Promoting the High-quality Development of the Iron and Steel Industry”, which proposed to further promote green and low-carbon practice. The opinions require the industry to construct a resource recycling system for the mutual development of different industry sectors, so that more than 80% of steel production capacity will achieve ultra-low emission transformation, the comprehensive energy consumption per ton of steel will be reduced by more than 2% and the consumption intensity of water resources will be reduced by more than 10%, with a view to ensuring carbon peaks before 2030.

現階段環保產業的快時代已經結束，兼併整合的大時代才剛剛開啟。環保服務呈現產業鏈整合、數字化、智能化、一體化融合發展和綜合處置的新業態。環保企業間的競爭由「投資+工程」的硬實力逐步進入到「運營+技術」精細化管理的軟實力的角逐。在新發展態勢下環保產業不僅為治污攻堅提供了良好的技術支撐，同時也獲得了自身發展的機遇。

2022年1月20日，工業和信息化部、國家發展改革委和生態環境部聯合印發《關於促進鋼鐵工業高質量發展的指導意見》，該意見提出，將綠色低碳深入推進。構建產業間耦合發展的資源循環利用體系，80%以上鋼鐵產能完成超低排放改造，噸鋼綜合能耗降低2%以上，水資源消耗強度降低10%以上，確保2030年前碳達峰。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

On 29 June 2022, the Ministry of Industry and Information Technology and other six departments issued the “Industrial Energy Efficiency Improvement Action Plan”. Focusing on key industries, sectors and equipment which are energy-consuming, the plan requires to implement policies by industry and category and systematically improve the energy efficiency level in various industries, as well as strengthen energy management in all dimension in the whole chain and process, enhance standard guidance and energy-saving services, and coordinately improve the energy efficiency level of large, medium and small enterprises and industrial parks. It also proposes to coordinate and optimize industrial energy structure and digital empowerment to facilitate energy conservation and efficiency enhancement, and comprehensively improve the foundation of industrial energy efficiency. Promoting the improvement of industrial energy efficiency is an important way to reduce carbon emissions in industrial sectors and achieve the goal of carbon neutrality and carbon peaking.

On 1 August 2022, the Ministry of Industry and Information Technology, the National Development and Reform Commission and the Ministry of Ecology and Environment issued the “Implementation Plan for Carbon Peaking in Industrial Sectors”. Positive progress has been made in the optimization of the industrial structure and energy-consumption structure, resulting in a great improvement in the utilization efficiency of energy resources and the formation of a number of green factories and green industrial parks, thus laying a solid foundation for carbon peaking in industrial sectors. By 2025, it is expected that the intensity of carbon dioxide emissions in key industries will drop significantly. During the “15th Five-Year Plan” period, the country will strive to achieve carbon peaking and carbon reduction by further optimizing the layout of the industrial structure and continuously lowering the intensity of industrial energy consumption and carbon dioxide emissions. On the basis of achieving carbon peaking in industrial sectors, the country will strengthen carbon neutrality capabilities and basically establish a modern industrial system featuring high efficiency, greenness, recycling and low carbon, with a view to ensuring carbon dioxide emissions peaking in industrial sectors by 2030.

2022年6月29日，工業和信息化部等六部委印發《工業能效提升行動計劃》，聚焦重點用能行業、重點用能領域和重點用能設備，分業施策，分類推進，系統提升工業能效水平；加強全鏈條、全維度、全過程用能管理，強化標準引領和節能服務，協同提升大中小企業、工業園區能效水平；統籌優化工業用能結構、數字賦能等對節能提效的促進作用，全面提升工業能效基礎。推進工業能效提升，是降低工業領域碳排放、實現碳達峰碳中和目標的重要途徑。

2022年8月1日，工業和信息化部、國家發展改革委和生態環境部印發《工業領域碳達峰實施方案》，該方案提出，「十四五」期間，產業結構與用能結構優化取得積極進展，能源資源利用效率大幅提升，建成一批綠色工廠和綠色工業園區，築牢工業領域碳達峰基礎。到2025年，重點行業二氧化碳排放強度明顯下降。「十五五」期間，產業結構佈局進一步優化，工業能耗強度、二氧化碳排放強度持續下降，努力達峰削峰，在實現工業領域碳達峰的基礎上強化碳中和能力，基本建立以高效、綠色、循環、低碳重要特徵的現代工業體系。確保工業領域二氧化碳排放在2030年前達峰。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

On 2 November 2022, the Ministry of Science and Technology, the Ministry of Ecology and Environment, the Ministry of Housing and Urban-Rural Development, the Meteorological Bureau and the Forestry and Grassland Bureau jointly issued the “Special Plan for Scientific and Technological Innovation in the Field of Ecological Environment for the 14th Five-Year Plan”. It is mentioned in the plan that in order to actively respond to the challenges encountered in the ecological and environmental governance of the PRC during the “14th Five-Year Plan” period, it is necessary to accelerate scientific and technological innovation in the ecological environment and formulate a green technology innovation system, so as to promote a comprehensive green transformation of the economic and social development and build a beautiful China. The plan focuses on the research and development of key technologies such as the coordinated prevention and control of fine particles (PM2.5) and ozone (O<sub>3</sub>), the coordinated prevention and control of ecological environment risks relating to soil-groundwater and the coordinated reduction of pollution and carbon emissions.

On 14 December 2022, the Central Committee of the Communist Party of China and the State Council issued the “Strategic Planning Outline for Expanding Domestic Demand (2022-2035)”, which proposes to put more efforts to the construction of ecological and environmental protection facilities. It also suggests to comprehensively improve the level of ecological environment infrastructure, build an environmental infrastructure system integrating the treatment and disposal facilities and monitoring and supervision capabilities for sewage, garbage, solid and hazardous waste and medical waste, as well as to form an environmental infrastructure network that extends from cities to towns and villages. It also requires to implement major projects for the protection and restoration of important ecosystems, promote the establishment of an ecological protection compensation system, comprehensively facilitate the efficient utilization of resources and construct ecological and environmental protection facilities that are conducive to the enhancement of clean energy utilization and the reduction of carbon dioxide emission. As such, the overall infrastructure of the environmental protection industry can be improved.

2022年11月2日，科技部、生態環境部、住房和城鄉建設部、氣象局、林業和草原局聯合印發《「十四五」生態環境領域科技創新專項規劃》。該規劃中提到，為積極應對「十四五」期間我國生態環境治理面臨的挑戰，需要加快生態環境科技創新，構建綠色技術創新體系，推動經濟社會發展全面綠色轉型，建設美麗中國。重點開展細顆粒物(PM2.5)和臭氧(O<sub>3</sub>)協同防治、土壤－地下水生態環境風險協同防控、減污降碳協同等關鍵技術研發。

2022年12月14日，中共中央、國務院印發了《擴大內需戰略規劃綱要(2022—2035年)》，其中提出加大生態環保設施建設力度。全面提升生態環境基礎設施水平，構建集污水、垃圾、固廢、危廢、醫廢處理處置設施和監測監管能力於一體的環境基礎設施體系，形成由城市向建制鎮和鄉村延伸覆蓋的環境基礎設施網絡，實施重要生態系統保護和修復重大工程，推動建立生態保護補償制度。全面推進資源高效利用，建設促進提高清潔能源利用水平、降低二氧化碳排放的生態環保設施。環保行業基礎設施實現整體提升。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### 2. BUSINESS REVIEW

In 2022, as affected by the coronavirus pandemic, there were difficulties in the recovery of the world economy and the global production and supply chain was interrupted. Overall, the Chinese economy has been facing pressure from shrinking demand, supply shocks and weakening expectations. The production and operation activities in some industries and regions were stagnant, and the indicators such as industrial production and electricity consumption and freight transportation continued to decline. Against this backdrop, the business expansion and project execution of the Group were facing great challenges and its revenue was affected to a certain extent. Nevertheless, the Group has put great effort to develop and seek new drivers for profit growth, and continuously expand new businesses, secure new customers and enter into new industries, thus laying a solid foundation for the Group's strategic objectives in the "14th Five-Year Plan" and establishing our ecological niche in the era of environmental protection.

As of 31 December 2022, the Group's projects had a broad geographic coverage over China, reaching 31 provinces, municipalities and autonomous regions in China. During the Reporting Period, flue gas treatment and dual-carbon energy saving projects were mainly concentrated in North China and Central Southern China. Relying on the guidance of state policies and driven by the Group's strategic goals, the Group's business in steel and other non-electricity industries has achieved outstanding performance. Compared with the same period last year, the orders of O&M business have grown significantly and the contract periods have been relatively stable for a long term. Meanwhile, water treatment and hazardous and solid waste treatment/disposal projects have been steadily expanding in Northwest China, East China and North China.

#### 2. 業務回顧

2022年，受新冠疫情影響，世界經濟復蘇艱難，全球生產和供應周期不暢。從總體上看，中國經濟面臨着需求萎縮、供給衝擊和預期減弱的壓力。部分行業及地區生產經營活動停滯，工業生產、用電貨運等指標持續走低，本集團業務拓展及項目執行面臨着極大的挑戰，收益受到了一定程度的影響。儘管如此，本集團仍在努力開拓和尋求新的利潤增長點，持續提升對新業務－新客戶－新行業的拓展力度，為本集團的「十四五」戰略目標奠定堅實的基礎，為在環保大時代下的發展尋求我們的生態位。

截至2022年12月31日，本集團的項目在中國的覆蓋範圍廣泛，遍及中國31個省、市及自治區。於報告期內，煙氣治理及雙碳節能項目主要集中在華北和中南地區，依托政策的引導和在本集團戰略目標的驅動下，本集團業務在鋼鐵等非電行業表現亮眼，較去年同期，運維訂單增長顯著且合同周期呈長期穩定態勢。水處理和危固廢處理處置項目則在西北地區、華東地區及華北地區穩步拓展。



Management Discussion and Analysis (Continued)

管理層討論與分析(續)

The following map shows the distribution of the projects of the Group within the PRC as at 31 December 2022:

下圖列示於2022年12月31日，本集團在中國境內的項目分佈：



## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

The following map shows the distribution of the projects of the Group outside the PRC as at 31 December 2022:

下圖列示於2022年12月31日，本集團在中國境外的項目分佈：



## 2.1 Flue Gas Treatment Business

As a provider of comprehensive green ecological treatment services for the industrial environment, the Group's business of flue gas treatment services is mainly conducted through various business models including EPC, O&M and concession operations (including "**Build-Operate-Transfer**" or "**BOT**", and "**Build-Own-Operate**" or "**BOO**"). During the Reporting Period, we have deeply explored the remaining market of flue gas treatment business by continuously strengthening the construction of our customer service system and leveraging our engineering implementation experience. Our business segments are as follows:

## 2.1 煙氣治理業務

作為工業環境綜合綠色生態治理服務的提供商，本集團煙氣治理業務主要通過EPC、運維及特許經營(包括「**建設－運營－轉讓**」或「**BOT**」，以及「**建設－擁有－運營**」或「**BOO**」)等多種業務模式提供服務。報告期內，我們通過不斷加強客戶服務體系的建設及良好的工程實施經驗，深度挖掘煙氣治理業務的剩餘市場。其中：





## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### EPC

EPC business mainly involves providing project design, equipment and materials procurement, project construction and equipment installment services in relation to SO<sub>2</sub> or NO<sub>x</sub> emission control and dust removal for industrial customers such as power plants, steel factories, chemical plants, refining and building material companies. In recent years, with changes in environmental protection policies, the Group has continued to expand the scope of EPC business customers, from the traditional coal-fired power plant flue gas treatment industry to other industries such as petrochemical, steel, gas, electrolytic aluminum, coking, refining and building materials, and has repeatedly achieved remarkable results in the non-electricity market. As of 31 December 2022, the Group had 10 new EPC projects, with a total contract value amounting to approximately RMB429 million.

The following table sets forth the status of the Group's newly added EPC projects during the Reporting Period:

#### EPC

EPC業務主要涉及為發電、鋼鐵、化工、煉化及建材等工業客戶二氧化硫、氮氧化物排放控制及除塵項目提供設計、設備與材料採購、項目建設及設備安裝服務。近年來，隨着環保政策的變化，本集團持續擴大EPC業務客戶範圍，從傳統的燃煤電廠煙氣治理行業拓展至石化、鋼鐵、燃氣、電解鋁、焦化、煉化及建材，在非電領域市場屢獲佳績。截至2022年12月31日，本集團新增10個EPC項目，總計合同金額約人民幣429百萬元。

於報告期內，本集團新增的EPC項目情況如下：

No. 序號	Project name 項目名稱	Type of project 項目類型	Newly built/ upgraded 新建／改造	Date of contract 合同簽訂時間	Aggregate contract value 合同額 <i>RMB million</i> 人民幣百萬元
1	Supplementary Agreement for SCR Denitrification Upgrading Project of Sintering Plant of Hebei Yanshan Steel Group Co., Ltd. 河北燕山鋼鐵集團有限公司燒結廠SCR脫硝改造工程項目補充協議	Denitrification 脫硝	Upgraded 改造	January 2022 2022年1月	2 2
2	The Project of Installation of Catalyst and Sonic Sootblower to No. 1 and No. 2 Boiler of Hebei Zhuozhou Jingyuan Thermal Power Co., Ltd. 河北涿州京源熱電有限責任公司1號、2號鍋爐加裝催化劑及聲波吹灰器項目	Denitrification 脫硝	Newly built 新建	January 2022 2022年1月	7 7
3	Design Project for Sintered Particles Upgrading and Renovation Project of No. 1 and 3 Sintering Plants of Hebei Jinxi Steel Group Co., Ltd. 河北津西鋼鐵集團股份有限公司燒結廠一三燒顆粒物提標改造設計項目	Desulfurization and dust removal 脫硫及除塵	Upgraded 改造	February 2022 2022年2月	2 2

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

No. 序號	Project name 項目名稱	Type of project 項目類型	Newly built/ upgraded 新建/改造	Date of contract 合同簽訂時間	Aggregate contract value 合同額 <i>RMB million</i> 人民幣百萬元
4	Equipment Supply Project for Sintered Particles Upgrading and Renovation of No. 1 and 3 Sintering Plants of Hebei Jinxi Steel Group Co., Ltd. 河北津西鋼鐵集團股份有限公司燒結廠一三燒顆粒物提標改造設備供貨項目	Desulfurization and dust removal 脫硫及除塵	Upgraded 改造	February 2022 2022年2月	24
5	Construction and Installation Project for Sintered Particles Upgrading and Renovation of No. 1 and 3 Sintering Plants of Hebei Jinxi Steel Group Co., Ltd. 河北津西鋼鐵集團股份有限公司燒結廠一三燒顆粒物提標改造建安項目	Desulfurization and dust removal 脫硫及除塵	Upgraded 改造	February 2022 2022年2月	25
6	General Contracting Project for Hot Blast Furnace Denitrification System of Iron-making Plant of Hebei Yanshan Steel Group Co., Ltd. 河北燕山鋼鐵集團有限公司煉鐵廠熱風爐脫硝系統總承包項目	Denitrification 脫硝	Newly built 新建	March 2022 2022年3月	29
7	Upgrading Project of Ultra-low Emission Flue and Fan for Flue Gas Desulfurization and Denitrification of No. 4 Nickeliron Kiln of Guangdong Century Qingshan Nickel Industry Co., Ltd. 廣東世紀青山鎳業有限公司4條鎳鐵窑爐煙氣脫硫脫硝超低排放煙道及風機改造項目	Desulfurization and denitrification 脫硫及脫硝	Upgraded 改造	March 2022 2022年3月	23
8	Master Contracting Project of No. 1 Sintering Machine Flue Gas Purification Device relating to the Integrated Project of Removing the Old District of HBIS Hansteel from Urban Area 河鋼邯鋼老區退城整合項目1#燒結機煙氣淨化裝置總承包項目	Desulfurization, denitrification and dust removal 脫硫、脫硝及除塵	Newly built 新建	July 2022 2022年7月	115
9	Expansion Project for Flue Gas Desulfurization and Wet Electrostatic Dust Removal with 400kt/a Pre-baked Anode of Xinjiang Shenhua Carbon Products Co., Ltd. 新疆神火炭素製品有限公司400kt/a預焙陽極煅燒煙氣脫硫與濕式電除塵增建項目	Desulfurization and dust removal 脫硫及除塵	Upgraded 改造	July 2022 2022年7月	57
10	Engineering Upgrading Project for 800kt/a Aluminum Alloy Electrolysis Flue Gas Desulfurization of Xinjiang Shenhua Coal and Electricity Co., Ltd. 新疆神火煤電有限公司800kt/a鋁合金電解煙氣脫硫工程改造項目	Desulfurization 脫硫	Upgraded 改造	August 2022 2022年8月	145

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### O&M

O&M services mainly include operation services and regular maintenance services for desulfurization, denitrification and dust removal facilities owned by the customers. Under the O&M projects, our customers are either charged (i) service fees based on the total amount of on-grid electricity or sintered ton of ore generated during the service period, or (ii) a fixed price determined based on the pre-agreed scope of work. Revenue from the O&M business provides the Group with sustainable source of income and stable cash flow.

During the Reporting Period, the Group had a total of 23 O&M projects in operation, covering industrial sectors such as electricity and steel. The scope of the Group's O&M services has successfully expanded from the original environmental protection facilities to O&M of generator units, and the 135 MW generator unit of Jinxi Steel which we have newly contracted is the first 135MW supercritical gas-powered generating set in China.

The following table sets forth the installed capacities and status of the O&M projects of the Group under operation during the Reporting Period:

No. 編號	Project name 項目名稱	Type of project 項目類型	Starting date of service 服務起始日期 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)	Installed capacity 裝機容量
1	Yangcheng #1-6 Unit Flue Gas Desulfurization O&M Project (Note 1) 陽城1-6號機組煙氣脫硫運維項目(附註1)	Desulfurization and dust removal 脫硫除塵	July 2018 2018年7月	March 2023 2023年3月	6×350MW
2	Yangcheng #7-8 Unit Flue Gas Desulfurization O&M Project (Note 1) 陽城7-8號機組煙氣脫硫運維項目(附註1)	Desulfurization, dust removal and slag removal 脫硫除塵除渣	June 2018 2018年6月	March 2023 2023年3月	2×600MW
3	Qinzhou Desulfurization O&M Project 欽州脫硫運維項目	Desulfurization 脫硫	July 2015 2015年7月	June 2024 2024年6月	2×630MW+2×1000MW 2×630MW+2×1000MW
4	Jingjiang Flue Gas Desulfurization and Dust Removal O&M Project 靖江煙氣脫硫及除塵運維項目	Desulfurization and dust removal 脫硫除塵	March 2016 2016年3月	December 2023 2023年12月	2×660MW

#### 運維

運維服務主要包括對客戶擁有的脫硫、脫硝及除塵設施提供運營服務及常規維護服務。就運維項目，我們向客戶收取(i)基於服務期間總上網電量或燒結噸礦量計算的服務費，或(ii)根據預先協定的工作範圍釐定的價格。運維業務收入可為本集團提供持續性收入來源和穩定的現金流量。

於報告期內，本集團共有23個投運的運維項目，覆蓋電力及鋼鐵等工業領域，本集團運行維護服務範圍由原有的環保設施成功拓展至發電機組運維，且新承運的津西鋼鐵135發電機組是國內首台套135MW超超臨界煤氣發電裝機。

於報告期內，本集團的投運運維項目的裝機容量及項目情況如下：

## Management Discussion and Analysis (Continued)

## 管理層討論與分析 (續)

No. 編號	Project name 項目名稱	Type of project 項目類型	Starting date of service 服務起始日期 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)	Installed capacity 裝機容量
5	Yangxi Flue Gas Desulfurization and Denitrification O&M Project 陽西煙氣脫硫脫硝運維項目	Desulfurization and denitrification 脫硫脫硝	January 2017 2017年1月	December 2025 2025年12月	2×660MW+2×600MW
6	Shouguang Auxiliary Ashing and Sulfurization Control System Commissioned Operation Project 壽光灰硫化輔控系統委託運行項目	Desulfurization 脫硫	May 2018 2018年5月	March 2024 2024年3月	2×1000MW
7	Jinxi Steel O&M Project 津西鋼鐵運維項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	March 2019 2019年3月	February 2025 2025年2月	265 m <sup>2</sup> sintering machines 265 m <sup>2</sup> 燒結機
8	Jinxi Special Steel O&M Project 津西特鋼運維項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	March 2019 2019年3月	June 2023 2023年2月	2×210 m <sup>2</sup> + 1×265 m <sup>2</sup> sintering machines 2×210 m <sup>2</sup> +1×265 m <sup>2</sup> 燒結機
9	Denitrification, Desulfurization and Dust Removal O&M Project on 350m <sup>2</sup> Sintering Machines of Tianjin Iron Plant 天津鐵廠350平燒結機脫硫脫硝除塵運維項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	November 2019 2019年11月	November 2022 2022年11月	350 m <sup>2</sup> sintering machines 350 m <sup>2</sup> 燒結機
10	Denitrification O&M Project on 360m <sup>2</sup> Sintering Machines of Tianjin Iron Plant 天津鐵廠360平米燒結機脫硫運維項目	Denitrification 脫硝	December 2019 2019年12月	November 2022 2022年11月	360 m <sup>2</sup> sintering machines 360 m <sup>2</sup> 燒結機
11	Desulfurization, Denitrification and Wastewater Zero-discharge System Equipment Maintenance Works under the O&M Project of No. 5 & 6 units of Yangxi Power Plant 陽西運維電廠5、6機組脫硫脫硝及廢水零排系 統設備維護項目	Desulfurization, denitrification and wastewater zero- discharge 脫硫脫硝廢水零排	January 2022 2022年1月	August 2027 2027年8月	2×1240MW
12	Operation and Maintenance Service Project of Environmental Protection Facilities of Shanxi Yuguang Power Generation Co., Ltd. 山西豆光發電有限責任公司環保設施運行檢修服 務項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	December 2021 2021年12月	July 2023 2023年7月	2×300MW+2×350MW

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

No. 編號	Project name 項目名稱	Type of project 項目類型	Starting date of service 服務起始日期 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)	Installed capacity 裝機容量
13	Hegang Chenggang O&M Project 河鋼承鋼運維項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	April 2022 2022年4月	April 2027 2027年4月	180 m <sup>2</sup> sintering machines 180 m <sup>2</sup> 燒結機
14	Desulfurization and Denitrification System Contract Operation Project 津西鋼鐵集團有限公司燒結廠二燒脫硫脫硝系統 承包運營項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	July 2021 2021年7月	June 2024 2024年6月	265 m <sup>2</sup> sintering machines 265 m <sup>2</sup> 燒結機
15	Sintering Machine Flue Gas Purification Device O&M Project relating to the Integrated Project of Removing the Old District of HBIS Hansteel from Urban Area of Handan Steel Group Co., Ltd. 邯鄲鋼鐵集團有限責任公司河鋼邯鋼老區退城 整合項目燒結機煙氣淨化裝置運維項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	From the date of uploading the environmental protection information to the Internet 環保數據並網上傳之日 起	Contract period of 5 years 合同期5年	435 m <sup>2</sup> sintering machines 435 m <sup>2</sup> 燒結機
16	2×1000MW Desulfurization System O&M Project of SDIC Nanyang 國投南陽2×1000MW脫硫系統運行維護項目	Lime sulfur system 灰硫系統	August 2021 2021年8月	August 2023 2023年8月	2×1000MW 2×1000MW
17	2×660MW Lime Sulfur and Coal Transportation and Maintenance Project of Panji Power Plant of Huainan Mining 潘集淮南礦業潘集電廠2×660MW灰硫輸煤運輸 維護項目	Ash and slag removal, desulfurization and denitrification 除灰渣、脫硫、脫硝	November 2022 2022年11月	November 2024 2024年11月	2×660MW 2×660MW
18	Environmental Protection Facilities O&M Project of Shanxi International Energy Yuguang Coal and Electricity Co., Ltd. 山西國際能源裕光煤電有限責任公司環保設施運 維項目	Desulfurization and dust removal 脫硫及除塵	April 2022 2022年4月	March 2025 2025年3月	1×1000MW 1×1000MW
19	Desulfurizer Purchase and Sale Project of Chengde Branch of Hebei Steel Co., Ltd. 河鋼股份有限公司承德分公司脫硫劑採購買賣 項目	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	February 2022 2022年2月	June 2027 2027年2月	180 m <sup>2</sup> sintering machines 180 m <sup>2</sup> 燒結機

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

No. 編號	Project name 項目名稱	Type of project 項目類型	Starting date of service 服務起始日期 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)	Installed capacity 裝機容量
20	Desulfurization and Denitrification Outsourcing Operation Project of Sintering Plant 450 of Hebei Jinxi Steel Group Co., Ltd. 河北津西鋼鐵集團股份有限公司燒結廠450脫硫脫硝除塵外委運營項目	Desulfurization and denitrification 脫硫脫硝及除塵	September 2022 2022年9月	August 2025 2025年8月	450m <sup>2</sup> sintering machines 450m <sup>2</sup> 燒結機
21	Ash Vulcanization Auxiliary Control Operation and Auxiliary Production Service Project of Qingyuan Power Plant of Guangdong Company 廣東公司清遠電廠灰硫化輔控運行及輔助生產服務項目	Ash vulcanization auxiliary control operation and auxiliary production service 灰硫化輔控運行及輔助生產服務	October 2022 2022年10月	October 2025 2025年10月	2×300MW+2×350MW 2×300MW+2×350MW
22	O&M Project (Excluding Desulfurization and Denitrification) for 135 MW Generator Unit of Jinxi Steel 津西鋼鐵135發電機組(不含脫硫脫硝)運行維護項目	O&M for generator unit 發電機組運維	October 2022 2022年10月	October 2026 2026年10月	135MW 135MW
23	O&M Project for 299,000 cubic meters Blast Furnace Gas Tank of Jinxi Steel 津西鋼鐵29.9萬立高爐煤氣櫃運行維護項目	O&M for blast furnace gas tank 高爐煤氣櫃設備運維	October 2022 2022年10月	October 2026 2026年10月	299,000 cubic meters 29.9萬立

Note 1: Upon the expiration of the contract, it can be renewed twice for one year according to the terms of the contract.

附註1：合約期滿後可按合約條款按一年期再續約兩次。

### Concession Operation Business

Under the concession operation business model, the Group is responsible for the financing, investment, construction and operation of a project according to its concession contracts with its customers.

In 2022, the Group continued to carry out its concession operation business, including desulfurization, denitrification and green island. As of 31 December 2022, the Group accumulated seven concession operation projects (Note 2), all of which have been put into operation smoothly, laying a strong foundation for the Group's continuous operation and stable development.

### 特許經營業務

在特許經營業務模式下，本集團負責根據與其客戶訂立的特許經營合同為項目籌措資金、投資、建設及運營。

於2022年，本集團繼續運營其特許經營業務，包括脫硫、脫硝及環保島。於2022年12月31日，本集團累計在執行七個特許經營項目（附註2），所有項目均已順利投運，為本集團持續經營和穩定發展奠定重要基礎。

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

The following table sets forth details of the concession operation projects of the Group under operation during the Reporting Period (Note 1):

於報告期內，本集團投運的特許經營項目詳情如下(附註1)：

No. 序號	Project name 項目名稱	Installed capacity 裝機容量	Type of project 項目類型	Newly built/ Upgraded 新建/改造	Total investment 投資總額 RMB million 人民幣百萬元	Date of signing contract 合同簽訂日期 (Month/Year) (年/月)	Expiry date of concession period 特許經營期限屆滿日期 (Month/Year) (年/月)
1	Jiangxi Jinggangshan BOT Project 江西井岡山BOT項目	2×300MW+ 2×660MW	Desulfurization 脫硫	Newly built and upgraded 新建及改造	386 (Note 3)	January 2008 (for Phase I) August 2008 (for Phase II)	July 2030 (for Phase I) December 2030 (for Phase II)
2	Shanxi Hejin BOT Project 山西河津BOT項目	2×300MW+ 2×660MW	Denitrification 脫硝	Newly built 新建	90	June 2012	September 2033 (for Unit #1) May 2033 (for Unit #2)
3	Shanxi Puzhou Phase I BOT Project (Note 2) 山西蒲洲一期BOT項目 (附註2)	2×300MW	Denitrification 脫硝	Newly built 新建	84	June 2012	January 2034 (for Unit #1) May 2033 (for Unit #2)
4	Shanxi Puzhou Phase II BOT Project 山西蒲洲二期BOT項目	2×350MW	Desulfurization 脫硫	Newly built 新建	112	May 2014	End of 2037
5	Xinjiang Shenhuo BOT Project 新疆神火BOT項目	4×350MW	Green Island 環保島	Upgraded 改造	498 (Note 3)	June 2017	End of 2032
6	Huainan Guqiao BOT Project 淮南顧橋BOT項目	2×330MW	Green Island 環保島	Upgraded 改造	173	May 2018	End of 2033
7	Xinjiang Guotai Xinhua BOT Project 新疆國泰新華BOT項目	2×350MW	Green Island 環保島	Upgraded 改造	150	July 2018	June 2028
8	Guangxi Laibin Desulfurization, Denitrification and Dust Removal BOO Project 廣西來賓脫硫脫硝 除塵BOO項目	2×300MW	Green Island 環保島	Upgraded 改造	303 (Note 3)	December 2018	End of 2033

## Management Discussion and Analysis (Continued)

### 管理層討論與分析 (續)

#### Notes:

1. On 30 December 2022, Beijing Boqi and Shanxi Yuguang Power Generation Co., Ltd. (山西昱光發電有限責任公司) (“**Shanxi Yuguang**”) entered into a termination agreement, pursuant to which, among others, Shanxi Yuguang agreed to purchase and Beijing Boqi agreed to sell the Yuguang BOT Facilities. For further details, please refer to the announcement of the Company headed “Discloseable Transaction — Disposal of the Yuguang BOT Facilities” dated 30 December 2022.
2. Shanxi Puzhou Phase I BOT Project is currently under negotiation of being repurchased by the owner, and the related BOT business has been suspended.
3. The environmental protection facilities of Jiangxi Jinggangshan BOT Project, Xinjiang Shenhua BOT Project and Guangxi Laibin Desulfurization, Denitrification and Dust Removal BOO Project have been optimized in terms of their process, thus the investment amount has increased accordingly.

#### 附註：

1. 於2022年12月30日，北京博奇與山西昱光發電有限責任公司(「山西昱光」)訂立終止協議，據此(其中包括)，山西昱光同意購買且北京博奇同意出售昱光BOT設施。有關詳情，請參閱本公司日期為2022年12月30日標題為「須予披露交易－出售昱光BOT設施」的公告。
2. 山西蒲洲一期BOT項目已處於業主回購洽談階段，相關BOT業務已暫停。
3. 江西井冈山BOT項目、新疆神火BOT項目及廣西來賓脫硫脫硝除塵BOO項目的環保設施分別進行了工藝優化，使得投資額相應增加。





## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### 2.2 Water Treatment Business

During the Reporting Period, the Group's water treatment business has developed with favorable momentum. Relying on its engineering implementation experience and performance foundation in the field of water treatment, the Group successfully explored the markets of the pharmaceutical and paper industries. Changzhi Yuanyan Pharmaceutical Technology Co., Ltd. is a pharmaceutical enterprise in the park where the Group's Lubao Industrial Park Wastewater Treatment Project is located. The Group conducts advanced treatment and concentration of the pretreated sewage to achieve near zero discharge in the park. The pulping and paper-making sewage treatment transformation EPC project of Shandong Bohui Paper Co., Ltd. is a large-scale technical transformation general contracting project in the field of domestic pulping and paper-making sewage treatment in recent years. The project adopts the Group's advanced industrial water treatment integrated technology to effectively remove COD and pollutants such as total nitrogen and total phosphorus to ensure the efficient and stable operation of the system, while realizing the reuse of reclaimed water and saving water resources. As of 31 December 2022, the Group had three new water treatment projects, with a total contract value of approximately RMB295 million.

#### 2.2 水處理業務

報告期內，本集團水處理業務發展態勢良好。憑借本集團在水處理領域的工程實施經驗和業績基礎，成功開拓了醫藥和造紙行業的市場。長治市元延醫藥科技有限公司為本集團的潞寶工業園區污水處理項目所在園區內的醫藥企業，本集團對其預處理後的排水進行深度處理和濃縮，實現園區近零排放。山東博匯紙業股份有限公司一製漿造紙污水處理改造EPC項目採用本集團先進的工業水處理組合技術，有效去除COD、總氮、總磷等污染物，保證系統高效穩定運行的同時，實現中水回用，節省水資源。截至2022年12月31日，本集團新增叁個水處理項目，總計合同金額約人民幣295百萬元。

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

The following table sets forth details of the water treatment projects being implemented by the Group during the Reporting Period:

於報告期內，本集團在執行的水處理業務項目如下：

No.	Project name	Type of project	Date of signing contract	Expiry date of service contract (month/year)
序號	項目名稱	項目類型	合同簽訂時間	服務合約屆滿日期(年/月)
1	Sewage Advanced Treatment and Recycle Project for Coking Waste water/sewage and Renewable Resource Utilization of Shanxi Lubao Industrial Park	N/A <i>(Note)</i>	June 2019	N/A
	山西潞寶工業園區焦化廢(污)水及再生資源化利用污水深度處理及回用項目	不適用 <sup>(註)</sup>	2019年6月	不適用
2	Concentrated Water Advanced Treatment System Project of Lubao Industrial Park Sewage Treatment Center	N/A <i>(Note)</i>	November 2020	N/A
	潞寶工業園區污水處理中心濃水深度處理系統項目	不適用 <sup>(註)</sup>	2020年11月	不適用
3	Wastewater Zero Discharge Project for the Coking Plant of Tianjin Iron Works Co., Ltd.	EPC	August 2021	N/A
	天津鐵廠有限公司焦化廠廢水零排放項目	EPC	2021年8月	不適用
4	Wastewater Treatment System EPC Project of Binzhou Hongnuo Company	EPC	September 2021	N/A
	濱州宏諾公司廢水處置系統EPC工程項目	EPC	2021年9月	不適用
5	Technical Service Project for Yakela Sewage Treatment Station of Sinopec Northwest Oilfield Branch	O&M	October 2021	September 2024
	中石化西北油田分公司雅克拉污水處理站技術服務項目	運維	2021年10月	2024年9月
6	Domestic Sewage Treatment and Operation Commissioned Project of Xinjiang Northwest Oilfield Drilling Team	O&M	January 2022	June 2024
	新疆西北油田鑽井隊生活污水處理生產運行委託項目	運維	2022年1月	2024年6月
7	Wastewater/Sewage Collection and Treatment Project of Changzhi Yuanyan Pharmaceutical Technology Co., Ltd.	O&M	January 2022	January 2023
	長治市元延醫藥科技有限公司(廢)污水接納處理項目	運維	2022年1月	2023年1月
8	Sewage Treatment and Renovation EPC Project for Pulping and Paper Production of Shandong Bohui Paper Co., Ltd.	EPC	April 2022	N/A
	山東博匯紙業股份有限公司制漿造紙污水處理改造EPC項目	EPC	2022年4月	不適用

Note: Such projects belong to self-owned assets and are not applicable to this classification.

註：該等項目屬於自有資產，不適用此處分類。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### 2.3 Hazardous and Solid Waste Treatment/Disposal Business

During the Reporting Period, the Group's Drilling Mud Solid Waste Treatment O&M Project in Xinjiang Drilling Area has been operating smoothly, with a designed processing capacity of 120,000 tons per year. In the field of co-processing of cement kilns, the construction of the first phase of the Cooperative Hazardous and Solid Waste Disposal Project of Tangshan Yandong Cement Kiln in China has been completed, and the hazardous waste business license is being processed. The project is planned to be invested and constructed in two phases. After the completion and operation of the project, the annual processing capacity of hazardous solid waste is expected to reach about 100,000 tons. Qinghai Boqi, a subsidiary of the Group, was affected by factors such as increasingly stringent regulatory environment and landscape on cross-province transfer of hazardous waste in the Qinghai Province and the lockdown caused by the coronavirus pandemic in 2022, which resulted in significant changes in operating environment and future development prospects of Qinghai Boqi. The Group has further signed a supplementary agreements to adjust the consideration for acquisition of Qinghai Boqi with reference to the revised valuation as at 30 June 2022<sup>(note)</sup>, which greatly reduced the Group's investment cost on the projects of Qinghai Boqi. The Group has invested in the construction of the Hazardous Waste Packaging Comprehensive Utilization Project of Qinghai Boqi. Through the planning of its hazardous and solid waste treatment/disposal business, the Group is expected to further open up the market of the hazardous and solid waste treatment/disposal business.

*Note: For further details, please refer to the Company's announcement dated 2 December 2022.*

#### 2.3 危固廢處理處置業務

於報告期內，本集團的中石化新疆工區鑽井泥漿固廢治理運維項目順利運營，設計處理能力達每年12萬噸；水泥窯協同處置領域，唐山燕東水泥窯協同處置危固廢處理項目一期已經建設完成，正在辦理危險廢物經營許可證，該項目計劃分兩期投資建設，建成投運後的危固廢每年處理量有望達約10萬噸；本集團子公司青海博奇於2022年受青海省危險廢物跨省轉移的監管環境和格局日趨嚴格，以及新冠疫情導致停工等因素的影響，導致青海博奇的經營環境和未來發展發生了較大的變化，本集團進一步簽訂了補充協議，根據2022年6月30日的經修訂估值調整了青海博奇的收購代價<sup>(註)</sup>，較大幅度降低了本集團對青海博奇項目的投資成本。本集團投資建設了青海博奇危險廢舊包裝物綜合利用項目，通過對危固廢處理處置業務的佈局，本集團有望進一步打開危固廢處理處置業務市場。

*註：有關詳情，請參閱本公司日期為2022年12月2日的公告。*

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### 2.4 Dual-Carbon Energy Saving Business

During the Reporting Period, the Group's dual-carbon energy saving business was carried out in an orderly manner, and it always seeks to further expand its market share in the field of dual-carbon energy saving business. The CDQ Project of Tianjin Iron Plant has been officially put into operation during the Reporting Period. The contract model was changed from the original EMC model to the BOT model in July 2022 with a contract term of 10 years, which will provide a stable source of income for the Group in the mid- to long-term, thus laying a foundation for the strategic deployment of the Group's dual-carbon energy saving business.

### 3. FINANCIAL POSITION AND OPERATING RESULTS

In 2022, as affected by the local and overseas macroeconomy and the domestic pandemic situation, the Company's market expansion and project execution were restricted, bringing great challenges to the production and operation of the Company. Nevertheless, the Company has continued to step up its efforts to explore new business areas and improve its organizational management level and technological innovation capabilities, thus ensuring the normal operation of various business segments and maintaining a sound asset structure.

#### Revenue

In the 2022 financial year, the Group's total revenue was RMB1,900 million, representing a decrease of 9.2% from RMB2,092 million for the year ended 31 December 2021 (the "2021 financial year"), mainly due to the following reasons: (i) the progress of certain EPC projects was delayed due to the impact of the lockdown policy relating to coronavirus pandemic; (ii) the power generation of certain concession operation projects decreased as compared with 2021 and the services under Shanxi Yuguang BOT Project were terminated; and (iii) the revenue from the hazardous and solid waste treatment/disposal business decreased due to the impact of the coronavirus pandemic and environmental inspections.

#### 2.4 雙碳節能業務

報告期內，本集團的雙碳節能業務有序開展，並始終嘗試進一步擴大雙碳節能業務領域的市場份額。天津鐵廠乾熄焦工程項目已於報告期內正式投產，合同模式於2022年7月由原本的EMC模式變更為BOT模式，合同期10年，中長期內將為集團帶來穩定的收入來源，為集團雙碳節能的戰略佈局奠定基礎。

### 3. 財務狀況及經營業績

2022年，受國內外宏觀經濟形勢及國內新冠疫情影響，本公司市場拓展及項目執行受限，給本公司生產經營帶來極大挑戰。即便如此，本公司仍不斷加大新業務領域開拓力度，提升組織管理水平和技術創新能力，保證各業務板塊正常運轉，資產結構狀況保持良好。

#### 收入

於2022財政年度，本集團的收入總額為人民幣1,900百萬元，較截至2021年12月31日止年度（「2021財政年度」）的人民幣2,092百萬元減少9.2%，主要由於(i)受新冠疫情封控政策影響，部分EPC項目進度延緩；(ii)部分特許經營項目發電量較2021年有所減少及山西昱光BOT項目服務終止；及(iii)危固廢處理處置業務受新冠疫情和環保檢查影響導致收入下降。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

The Group generates revenue primarily from four operating segments: (i) flue gas treatment, (ii) water treatment; (iii) hazardous and solid waste treatment/disposal; and (iv) dual-carbon energy saving business. The following table sets forth a breakdown of the revenue of the Group by segment for the periods indicated.

本集團主要從四個經營分部賺取收入：(i) 煙氣治理；(ii) 水處理；(iii) 危固廢處理處置；及(iv) 雙碳節能業務。下表載列本集團於所示期間按分部劃分的收入明細。

		<b>Segment revenue</b>	
		<b>分部收益</b>	
		<b>Year ended 31 December</b>	
		<b>截至12月31日</b>	
		<b>2022</b>	2021
		<b>2022年</b>	2021年
		<b>RMB'000</b>	RMB'000
		<b>人民幣千元</b>	人民幣千元
Flue Gas Treatment Business	煙氣治理業務	<b>1,510,016</b>	1,751,589
EPC	EPC	<b>568,983</b>	715,703
O&M	運維	<b>400,429</b>	394,927
Concession Operation	特許經營	<b>504,104</b>	582,157
Of which: Construction	其中：建造	<b>30,484</b>	39,439
Operation	運營	<b>473,620</b>	542,718
Others	其他	<b>36,500</b>	58,802
Water Treatment Business	水處理業務	<b>270,878</b>	100,286
Hazardous and Solid Waste Treatment/Disposal Business	危固廢處理處置業務	<b>11,717</b>	20,062
Dual-Carbon Energy Saving Business	雙碳節能業務	<b>107,637</b>	220,235
<b>Total</b>	<b>總計</b>	<b>1,900,248</b>	2,092,172

For the 2022 financial year, revenue generated from the Group's flue gas treatment business segment was as follows:

- Revenue from EPC business was RMB569 million, representing a decrease of 20.5% from RMB716 million for the 2021 financial year, mainly due to the delay in the progress of new contracts, tender works and certain EPC projects under operation as a result of the impact of the lockdown policy relating to coronavirus pandemic;

於2022財政年度，本集團煙氣治理業務分部的收入如下：

- EPC業務收入為人民幣569百萬元，較2021財政年度的人民幣716百萬元減少20.5%，主要由於受新冠疫情封控政策影響，新簽合同、招投標工作及部分在執行EPC項目進度延緩；

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

- Revenue from O&M business was RMB400 million, representing an increase of 1.3% from RMB395 million for the 2021 financial year, mainly due to the increase in the number of new mid- and long-term O&M orders in the non-electricity sector; and
- Revenue from concession operation business was RMB504 million, representing a decrease of 13.4% from RMB582 million for the 2021 financial year, mainly due to (i) a year-on-year decrease in power generation of certain concession operation projects as a result of the impact of the coronavirus pandemic; and (ii) the termination of the services under Shanxi Yuguang BOT Project.

For the 2022 financial year, revenue from the Group's water treatment business segment was RMB271 million, representing an increase of 171.0% from RMB100 million for the 2021 financial year, mainly due to market expansion and the increase in business scale.

For the 2022 financial year, revenue from the Group's hazardous and solid waste treatment/disposal business segment was RMB12 million, representing a decrease of 40.0% from RMB20 million for the 2021 financial year, mainly due to the delay in related administrative approvals under the impact of the coronavirus pandemic and environmental inspections, which resulted in the restriction on operations and declining revenues.

For the 2022 financial year, revenue from the Group's dual-carbon energy saving business segment was RMB108 million, representing a decrease of 50.9% from RMB220 million for the 2021 financial year, mainly because construction revenue significantly decreased year-on-year as the related projects completed construction and entered into operating stage.

- 運維業務的收入為人民幣400百萬元，較2021財政年度的人民幣395百萬元增加1.3%，主要由於非電領域新簽中長期運維訂單增加；及
- 特許經營業務的收入為人民幣504百萬元，較2021財政年度的人民幣582百萬元減少13.4%，主要由於(i)受新冠疫情影響，部分特許經營項目發電量同比降低；及(ii)山西昱光BOT項目服務終止。

於2022財政年度，本集團水處理業務分部的收入為人民幣271百萬元，較2021財政年度的人民幣100百萬元增加171.0%，主要由於市場拓展及業務規模增加。

於2022財政年度，本集團危固廢處理處置業務分部的收入為人民幣12百萬元，較2021財政年度的人民幣20百萬元減少40.0%，主要由於受新冠疫情及環保檢查影響，相關行政審批延遲，經營受限，收入下降。

於2022財政年度，本集團雙碳節能業務分部的收入為人民幣108百萬元，較2021財政年度的人民幣220百萬元減少50.9%，主要由於項目建設完成，進入營運階段，建造收入同比大幅減少。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Cost of Sales and Services

For the 2022 financial year, the Group's cost of sales and services was RMB1,509 million, representing a decrease of 11.5% from RMB1,705 million for the 2021 financial year, mainly due to (i) the delay in the progress of certain EPC projects due to the impact of the lockdown policy relating to coronavirus pandemic; (ii) a decrease in power generation of certain concession operation projects as compared to 2021 and the termination of the services under the Shanxi Yuguang BOT Project; and (iii) the hazardous and solid waste treatment/disposal business being affected by the coronavirus pandemic and environmental inspections.

For the 2022 financial year, the cost of sales and services of the Group's flue gas treatment business segment are as follows:

- The cost of sales and services for EPC business amounted to RMB535 million, representing a decrease of 19.5% from RMB665 million for the 2021 financial year, mainly due to the delay in the progress of new contracts, tender works and certain EPC projects under operation as a result of the impact of the lockdown policy relating to coronavirus pandemic;
- The cost of sales and services for O&M business amounted to RMB286 million, representing a decrease of 5.9% from RMB304 million for the 2021 financial year, mainly due to the reduction of operating costs resulting from changes in the service scope of certain projects and optimization of organization and management; and
- The cost of sales and services for concession operation business amounted to RMB376 million, representing a decrease of 15.3% from RMB444 million for the 2021 financial year, mainly due to (i) the decrease in power generation of certain concession operation projects and the termination of the services under Shanxi Yuguang BOT Project; and (ii) the reduction in operating cost due to the optimization of production process.

#### 銷售及服務成本

於2022財政年度，本集團的銷售及服務成本為人民幣1,509百萬元，較2021財政年度的人民幣1,705百萬元減少11.5%，主要由於(i)受新冠疫情封控政策影響，部分EPC項目進度延緩；(ii)部分特許經營項目發電量較2021年減少及山西昱光BOT項目服務終止；及(iii)危固廢處理處置業務受新冠疫情和環保檢查影響。

於2022財政年度，本集團煙氣治理業務分部的銷售及服務成本如下：

- EPC業務的銷售及服務成本為人民幣535百萬元，較2021財政年度的人民幣665百萬元減少19.5%，主要由於受新冠疫情封控政策影響，新簽合同、招投標工作及部分在執行EPC項目進度延緩；
- 運維業務的銷售及服務成本為人民幣286百萬元，較2021財政年度的人民幣304百萬元減少5.9%，主要由於部分項目服務範圍變更及組織管理優化，運營成本降低；及
- 特許經營業務的銷售及服務成本為人民幣376百萬元，較2021財政年度的人民幣444百萬元減少15.3%，主要由於(i)部分特許經營項目發電量減少及山西昱光BOT項目服務終止；及(ii)生產工藝優化，運營成本降低。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

For the 2022 financial year, the cost of sales and services for water treatment business segment was RMB213 million, representing an increase of 238.1% from RMB63 million for the 2021 financial year, mainly due to market expansion and the increase in business scale.

For the 2022 financial year, the cost of sales and services for hazardous and solid waste treatment/disposal business segment was RMB13 million, representing a decrease of 18.8% from RMB16 million for the 2021 financial year, mainly due to the delay in related administrative approvals under the impact of the coronavirus pandemic and environmental inspections, which resulted in the restriction on operations and declining costs.

For the 2022 financial year, the cost of sales and services for dual-carbon energy saving business segment was RMB85 million, representing a decrease of 60.1% from RMB213 million for the 2021 financial year, mainly because construction cost significantly decreased year-on-year as the related projects completed construction and entered into operating stage.

#### Gross Profit and Gross Profit Margin

For the 2022 financial year, the Group's gross profit was RMB391 million, representing an increase of 0.8% from RMB388 million for the 2021 financial year, and the gross profit margin was 20.6%, increased by 2.1 percentage points from the 2021 financial year, mainly because of the reduction in operating cost due to the optimization of production process of projects and organizational management.

於2022財政年度，水處理業務分部的銷售及服務成本為人民幣213百萬元，較2021財政年度的人民幣63百萬元增加238.1%，主要由於市場拓展，業務規模增加。

於2022財政年度，危固廢處理處置業務分部的銷售及服務成本為人民幣13百萬元，較2021財政年度的人民幣16百萬元減少18.8%，主要由於受新冠疫情及環保檢查影響，相關行政審批延遲，經營受限，成本下降。

於2022財政年度，雙碳節能業務分部的銷售及服務成本為人民幣85百萬元，較2021財政年度的人民幣213百萬元減少60.1%，主要由於項目建設完成，進入營運階段，建造成本同比大幅減少。

#### 毛利及毛利率

於2022財政年度，本集團的毛利為人民幣391百萬元，較2021財政年度的人民幣388百萬元增長0.8%，毛利率為20.6%，較2021財政年度增加2.1個百分點，主要由於本集團項目生產工藝及組織管理優化，營運成本降低。



## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

The following table sets forth the Group's gross profit and gross profit margin for each of the business segment for the periods indicated:

下表載列本集團於所列期間各業務分部的毛利及毛利率：

		Year ended 31 December 截至12月31日止年度			
		2022 2022年		2021 2021年	
		Gross Profit	Gross Profit Margin	Gross Profit	Gross Profit Margin
		毛利	毛利率	毛利	毛利率
		RMB'000	%	RMB'000	%
		人民幣千元	百分比	人民幣千元	百分比
Flue Gas Treatment Business	煙氣治理業務				
EPC	EPC	33,804	5.9	50,976	7.1
O&M	運維	113,971	28.5	91,757	23.2
Concession Operation	特許經營	128,126	25.4	138,071	23.7
Of which: Construction	其中：建造	244	0.8	817	2.1
Operation	運營	127,882	27.0	137,254	25.3
Others	其他	35,744	97.9	58,584	99.6
Water Treatment Business	水處理業務	58,084	21.4	36,815	36.7
Hazardous and Solid Waste Treatment/Disposal Business	危固廢處理處置業務	(935)	(8.0)	4,386	21.9
Dual-Carbon Energy Saving Business	雙碳節能業務	21,984	20.4	6,970	3.2
<b>Total</b>	<b>總計</b>	<b>390,778</b>	<b>20.6</b>	<b>387,559</b>	<b>18.5</b>

For the 2022 financial year, the gross profit of the Group's flue gas treatment business segment is as follows:

於2022財政年度，本集團煙氣治理業務分部的毛利如下：

- The gross profit of EPC business was RMB34 million, representing a decrease of 33.3% from RMB51 million for the 2021 financial year, mainly due to the delay in the progress of new contracts, tender works and certain EPC projects under operation as a result of the impact of the lockdown policy relating to coronavirus pandemic;
- EPC業務的毛利為人民幣34百萬元，較2021財政年度的人民幣51百萬元減少33.3%，主要由於受新冠疫情封控政策影響，新簽合同、招投標工作及部分在執行EPC項目進度延緩；

## Management Discussion and Analysis (Continued)

## 管理層討論與分析(續)

- The gross profit of O&M business was RMB114 million, representing an increase of 23.9% from RMB92 million for the 2021 financial year, mainly due to the reduction of operating costs resulting from changes in the service scope of certain projects and the optimization of organizational management; and
- The gross profit of the concession operation business was RMB128 million, representing a decrease of 7.2% from RMB138 million for the 2021 financial year, mainly due to the decrease in power generation of certain concession operation projects and the termination of services under the Shanxi Yuguang BOT Project.
- 運維業務的毛利為人民幣114百萬元，較2021財政年度的人民幣92百萬元增加23.9%，主要由於部分項目服務範圍變更及組織管理優化，運營成本降低；及
- 特許經營業務的毛利為人民幣128百萬元，較2021財政年度的人民幣138百萬元減少7.2%，主要由於部分特許經營項目發電量減少及山西昱光BOT項目服務終止。

For the 2022 financial year, the gross profit of the Group's water treatment business segment was RMB58 million, representing an increase of 56.8% from RMB37 million for the 2021 financial year, mainly due to market expansion and the decrease in unit price of certain consumption materials.

於2022財政年度，本集團水處理業務分部的毛利為人民幣58百萬元，較2021財政年度的人民幣37百萬元增加56.8%，主要由於市場拓展及部分消費物料的單位價格下降。

For the 2022 financial year, the gross profit of the Group's hazardous and solid waste treatment/disposal business segment was negative RMB1 million, representing a decrease of 125.0% from RMB4 million for the 2021 financial year, mainly due to the delay in related administrative approvals under the impact of the coronavirus pandemic and environmental inspections, which resulted in the restriction on operations and declining gross profit.

於2022財政年度，本集團危固廢處理處置業務分部的毛利為人民幣負1百萬元，較2021財政年度的人民幣4百萬元減少125.0%，主要由於受新冠疫情影響及環保檢查，相關行政審批延遲，經營受限，毛利下降。

For the 2022 financial year, the gross profit of the Group's dual-carbon energy saving business segment was RMB22 million, representing an increase of 214.3% from RMB7 million for the 2021 financial year, mainly because gross profit significantly increased year-on-year as the related projects completed construction and entered into operating stage.

於2022財政年度，本集團雙碳節能業務分部的毛利為人民幣22百萬元，較2021財政年度的人民幣7百萬元增加214.3%，主要由於項目建設完成，進入運營階段，毛利同比大幅增長。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Other Income and Gains

For the 2022 financial year, other income and gains consist primarily of interest income, exchange gains and losses, gain on adjustment of acquisition consideration and rental income.

For the 2022 financial year, the Group's other income and gains were RMB215 million, representing an increase of RMB64 million as compared with RMB151 million for the 2021 financial year, mainly attributable to the gain on adjustment of acquisition consideration for Qinghai Boqi.

#### Selling and Distribution Expenses

For the 2022 financial year, the Group's selling and distribution expenses were RMB20 million, representing a decrease of RMB10 million as compared with RMB30 million for the 2021 financial year, with the ratio of selling and distribution expenses to revenue declining to 1.1% for the 2022 financial year from 1.4% for last year, mainly due to the hampering on sales activities under coronavirus pandemic, which resulted in a decrease in sales and distribution expenses.

#### Administrative Expenses

For the 2022 financial year, the Group's administrative expenses amounted to RMB90 million, remaining unchanged as compared with RMB90 million for the 2021 financial year. The ratio of administrative expenses to revenue increased to 4.7% for the 2022 financial year from 4.3% for the 2021 financial year, mainly due to the decrease in revenue caused by the coronavirus pandemic as compared to last year, resulting in an increase in the ratio of administrative expenses to revenue.

#### 其他收入及收益

於2022財政年度，其他收入及收益主要包括利息收入、匯兌損益、收購代價調整收益及租金收入等。

於2022財政年度，本集團其他收入及收益淨額為人民幣215百萬元，較2021財政年度的人民幣151百萬元增加人民幣64百萬元，主要由於對青海博奇收購代價的調整產生的收益。

#### 銷售及分銷開支

於2022財政年度，本集團銷售及分銷開支為人民幣20百萬元，較2021財政年度人民幣30百萬元減少人民幣10百萬元，銷售及分銷開支佔收入的比率由上年同期的1.4%降至2022財政年度的1.1%，主要由於新冠疫情影響銷售活動開展，銷售及分銷開支減少。

#### 行政開支

於2022財政年度，本集團的行政開支為人民幣90百萬元，與2021財政年度人民幣90百萬元持平；行政開支佔收入比率由2021財政年度的4.3%上升至2022財政年度的4.7%，主要由於受新冠疫情影響收入規模較去年減少，行政開支佔收入比率上升。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Research and Development (“R&D”) Expenses

For the 2022 financial year, the Group’s R&D expenses amounted to RMB59 million, representing an increase of RMB19 million as compared with RMB40 million for the 2021 financial year. The ratio of R&D expenses to revenue increased from 1.9% for the 2021 financial year to 3.1% for the 2022 financial year, mainly due to the sustainable R&D investment in certain projects and expansion of new business, with a view to enhancing the Company’s competitiveness in the market, resulting in an increase in the Group’s investment in R&D.

#### Finance Costs

The Group’s finance costs consisted of interest expenses on bank borrowings, other borrowings and lease liabilities. For the 2022 financial year, the Group’s finance costs were RMB14 million, representing an increase of RMB4 million as compared with RMB10 million for the 2021 financial year, mainly due to the increase in the Group’s bank loans and other borrowings during the Reporting Period as compared with 2021.

#### Gearing Ratio

The gearing ratio is calculated as a percentage of the Group’s total liabilities over the Group’s total assets. As at 31 December 2022, the Group’s gearing ratio was 39.7%, decreased by 2.8 percentage points from 42.5% as at 31 December 2021.

#### Income Tax Expenses

The income tax expenses of the Group for the 2022 financial year was RMB20 million, decreased by 47.4% from RMB38 million for the 2021 financial year, mainly due to the decrease in the Group’s profit before tax during the Reporting Period.

#### 研究及開發(「研發」)開支

於2022財政年度，本集團的研發開支為人民幣59百萬元，較2021財政年度人民幣40百萬元增加人民幣19百萬元，研發開支佔收入比率由2021財政年度的1.9%上升至2022財政年度的3.1%，主要由於持續對若干項目進行研發投資並擴展新業務，以提升本公司在市場上的競爭力，本集團加大了研發投入。

#### 財務成本

本集團的財務成本為銀行借款及其他借款和租賃負債的利息開支。於2022財政年度，本集團的財務成本為人民幣14百萬元，較2021財政年度人民幣10百萬元增加人民幣4百萬元。主要由於本集團報告期內銀行貸款及其他借款較2021年增加所致。

#### 資產負債比率

資產負債比率乃根據本集團的負債總額佔本集團的總資產的百分比釐定。於2022年12月31日，本集團的資產負債比率為39.7%，較2021年12月31日的42.5%減少了2.8個百分點。

#### 所得稅開支

本集團於2022財政年度的所得稅開支為人民幣20百萬元。較2021財政年度的人人民幣38百萬元減少47.4%，主要由於本集團報告期內除稅前溢利減少所致。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Profit for the Reporting Period

For the 2022 financial year, the Group recorded a profit for the year of RMB156 million, representing a decrease of RMB192 million from RMB348 million for the 2021 financial year. The decrease was mainly due to (i) the decrease in profit or loss from changes in fair value of financial assets at fair value through profit or loss under the impact of global and domestic economies, resulting in an increase of other expenses and losses; (ii) the increase in the impairment losses of financial assets and contract assets; and (iii) the decrease in share of profits of associates of the Group.

#### Profit Attributable to Owners of the Company

Due to the above factors, for the 2022 financial year, profit attributable to owners of the Company was RMB152 million, representing a decrease of RMB196 million as compared with RMB348 million for the 2021 financial year.

#### Liquidity and Capital Resources

Taking into account the financial resources available to the Group, including cash and cash equivalents on hand, cash generated from operations and available facilities of the Company, and after diligent and careful analysis, the Directors are of the view that the Group has sufficient working capital required for the Group's operations at present and for the year ending 31 December 2023.

#### Cash Flows

At of 31 December 2022, the Group's bank balances and cash amounted to RMB402 million, representing an increase of RMB59 million as compared with RMB343 million at of 31 December 2021, mainly because the Company stepped up its efforts to collect receivables.

#### 報告期內溢利

於2022財政年度，本集團年內溢利為人民幣156百萬元，較2021財政年度人民幣348百萬元減少了人民幣192百萬元。主要由於本集團(i)受到環球及國內經濟影響，按公允價值計入損益的金融資產公允價值變動損益減少，導致其他開支及虧損上升；(ii)金融資產及合約資產的減值虧損上升；及(iii)分佔聯營公司的溢利減少。

#### 本公司擁有人應佔溢利

基於以上因素，於2022財政年度，本公司擁有人應佔溢利為人民幣152百萬元，較2021財政年度人民幣348百萬元減少了人民幣196百萬元。

#### 流動資金及資本來源

考慮到本集團可動用的財務資源(包括本公司持有的現金及現金等價物、經營所得現金及可動用融資)，經審慎及仔細查詢後，董事認為本集團擁有充足營運資金，滿足本集團目前及截至2023年12月31日止年度的經營需求。

#### 現金流量

於2022年12月31日，本集團的銀行結餘及現金為人民幣402百萬元，較於2021年12月31日的人民幣343百萬元增加人民幣59百萬元，主要由於報告期內公司加大收款力度所致。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析 (續)

#### Capital Expenditure

The capital expenditure of the Group comprises expenditures on the acquisition and construction of investment projects as well as equity investment. For the 2022 financial year, the total capital expenditure of the Group was RMB195 million, representing a decrease of 34.1% as compared with RMB296 million for the 2021 financial year.

#### Contingent Liabilities

As of 31 December 2022, the Group did not have any material contingent liabilities.

#### Pledge of the Group's Assets

As of 31 December 2022, the Group's long-term bank borrowing of RMB36 million was secured by mortgage of properties owned by the Group.

Jinggangshan Boqi, a subsidiary of the Group, as the lessee, had entered into a finance lease arrangement (the “**Finance Lease Agreement**”) with CITIC Financial Leasing Co., Ltd. (“**CITIC Leasing**”). Beijing Boqi had pledged all its equity interests in Jinggangshan Boqi and the service fee receivables under the Jinggangshan Boqi service concession agreement to CITIC Leasing to guarantee its liabilities under the Finance Lease Agreement.

Handan Boqi Environmental Technology Co., Ltd. (“**Handan Boqi**”), a subsidiary of the Group, as the lessee, had entered into a finance lease arrangement (the “**Finance Lease Agreement**”) with Jiangsu Financial Leasing Co., Ltd. (the “**Jiangsu Financial Leasing**”). Beijing Boqi had pledged all its equity interests in Handan Boqi and the service fee receivables under the Handan Boqi Service Concession Agreement to Jiangsu Financial Leasing to guarantee its liabilities under the Finance Lease Agreement.

#### 資本開支

本集團的資本開支主要包括購置和建設投資項目及股權投資。於2022財政年度，本集團的資本開支總額為人民幣195百萬元。較2021財政年度的人民幣296百萬元，減少34.1%。

#### 或然負債

於2022年12月31日，本集團並無重大或然負債。

#### 本集團資產抵押

於2022年12月31日，本集團銀行長期借款人民幣36百萬元，以本集團擁有的房產提供抵押擔保。

本集團的附屬公司井岡山博奇作為承租人，與中信金融租賃有限公司（「**中信租賃**」）訂立融資租賃安排（「**融資租賃協議**」）。北京博奇將其持有的井岡山博奇的全部股權及井岡山博奇服務特許經營協議項下的服務費應收款項質押予中信租賃，以擔保融資租賃協議項下的責任。

本集團的附屬公司邯鄲博奇環保科技有限公司（「**邯鄲博奇**」）作為承租人，與江蘇金融租賃有限公司（「**江蘇金融租賃**」）訂立融資租賃安排（「**融資租賃協議**」）。北京博奇將其持有的邯鄲博奇的全部股權及邯鄲博奇服務特許經營協議項下的服務費應收款項質押予江蘇金融租賃，以擔保融資租賃協議項下的責任。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### 4. RISK FACTORS AND RISK MANAGEMENT

##### Risks on environmental protection and pollution control policies

The Group provides substantially all of its environmental protection services to customers in the PRC, and the development of its businesses is greatly dependent on the pollution preventive policies of the PRC. Environmental protection industry is one of the major industries that benefit from the constant support of the PRC governments. The demand for the Group's environmental protection services and the revenue generated from are directly linked with the environmental protection requirements imposed on the current and potential customers of the Group. However, there can be no assurance that the specific favourable policies which are currently available will continue to exist. In addition, these policies and incentives may attract additional new market entrants to enter the market, and may also encourage the market entrants to provide other products or services with greater pollution control effects than the products and services of the Group. Therefore, there is no assurance that the Group will directly benefit from the changed industry policies. However, as the leader of the independent comprehensive flue gas treatment service provider in China, the Group will seize market opportunities to further cover the entire industrial chain of the flue gas treatment industry and explore potential markets. At the same time, the Group will actively develop new markets in non-electricity industries such as steel, petrochemicals, electrolytic aluminum and building material, and develop environmental protection businesses such as water treatment, hazardous and solid waste treatment/disposal and dual-carbon energy saving, with a view to achieving the sustainable development of the Group's business.

#### 4. 風險因素及風險管理

##### 環保及污染防治政策的風險

本集團向中國客戶提供絕大部分環保服務，且其業務發展在很大程度上取決於中國的污染防治政策。環保行業是受惠於中國政府持續支持的主要行業之一。對本集團環保服務的需求以及於該服務產生的收益與施加於本集團現有及潛在客戶的環保規定直接相關。然而，本集團無法保證目前享有的特定優惠政策將繼續存在。此外，該等政策及激勵措施或會吸引其他新商家進入市場，並可能鼓勵污染防治效果較本集團的產品及服務更好的其他產品或服務。因此，無法保證本集團將直接受惠於已變更的行業政策。然而，本集團作為中國獨立煙氣處理綜合服務提供商的領導者，將把握市場機遇，以進一步涵蓋煙氣處理行業的全產業鏈及深挖潛在市場，同時，積極發展鋼鐵、石化、電解鋁、建材等非電行業新領域市場，開拓水處理、危固廢處理處置、雙碳節能等環保業務，以期實現本集團業務的可持續發展。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Liquidity Risks

The Group's ability to generate adequate cash inflows from operating activities in the future will depend on the schedule of its projects and payment arrangement, its ability to recover receivables in a timely manner and the credit terms it can obtain. If the Group is not able to generate sufficient cash flows from its operations, the Group's development prospects may be materially and adversely affected. Ultimate responsibility for liquidity risk management rests with the Directors, who have established a stringent liquidity risk management system for the funding needs in the short, medium and long term and the Group's liquidity management requirements. The Group manages liquidity risk by various measures, such as maintaining adequate reserves, banking facilities and reserving bank facilities and continuously monitoring forecast and actual cash flows, as well as the comparison of maturity profile between financial assets and liabilities.

#### Credit Risks

The credit risk primarily arises from long-term receivables, trade and notes receivables, receivables under concession arrangement, bank balance and cash, pledged bank deposit, contract assets, debt instrument at fair value through other comprehensive income, other receivables and amounts due from related parties. Due to the nature of business of the Group, the Group has significant concentration of credit risk on a small number of customers and the financial guarantee provided by the Group. As at 31 December 2022, the aggregated amount of the Group's trade receivables of the top five customers was RMB361 million, representing 39.2% of the total trade receivables of the Group as of 31 December 2022. The Group's concentration of credit risk by geographical locations is solely in the PRC, and the Group has a credit policy in place and the exposure to these credit risks are monitored on an ongoing basis.

#### 流動資金風險

本集團未來經營活動產生充足現金流入的能力將取決於項目時間表及付款安排、本集團及時收回應收款項的能力及本集團能取得的信貸期。倘本集團未能從營運中產生充足的現金流量，本集團的發展前景可能受到重大不利影響。董事須為流動資金風險管理負上最終責任，彼等已建立嚴格的流動資金風險管理體系，以滿足本集團的短期、中期及長期資金及流動資金管理需要。本集團透過維持足夠備用現金、銀行融資及預留銀行融資、持續監察預測及實際現金流量以及比對金融資產與負債的到期情況來管理流動資金風險。

#### 信貸風險

信貸風險主要來自長期應收款項、貿易應收款項及應收票據、特許經營安排項下的應收款項、銀行結餘及現金、已抵押銀行存款、合約資產、按公允價值計入其他全面收益的債務工具、其他應收款項以及應收關聯方款項。由於本集團的業務性質，本集團的信貸風險主要集中於少數客戶以及本集團提供的財務擔保。於2022年12月31日，本集團五大客戶的貿易應收款項總額為人民幣361百萬元，佔本集團2022年12月31日貿易應收款項總額的39.2%。本集團的信貸風險地域上僅集中於中國，本集團已落實信貸政策，持續監察所面對的該等信貸風險。





## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### Foreign Exchange and Conversion Risks

As of 31 December 2022, almost all of the Group's operating activities are carried out in the PRC with most of the transactions denominated in RMB. The Group is exposed to foreign exchange and conversion risks primarily through its sales and procurement transactions that are denominated in currencies other than RMB. In addition, RMB is not freely convertible into foreign currencies and the conversion of RMB into foreign currencies is subject to rules and regulations of the foreign exchange control promulgated by the PRC Government. As of 31 December 2022, the Group does not have a foreign currency hedging policy. However, the Board will monitor the Group's foreign exchange exposure closely and may, depending on the circumstances and trend of foreign currency, consider adopting significant foreign currency hedging policy in the future.

#### 外匯與貨幣兌換風險

於2022年12月31日，本集團幾乎所有經營業務均在中國進行，且大部分交易以人民幣計值。本集團所面對的外匯及兌換風險主要來自以人民幣以外的其他貨幣所進行的銷售及採購業務。此外，人民幣不可自由兌換為外幣，而且將人民幣兌換為外幣須受中國政府頒佈的外匯管制規則及條例規限。於2022年12月31日，本集團並無外幣對沖政策。然而，董事會將密切監察本集團的外匯風險，並可能於日後視乎外幣的情況及走勢考慮採納重大外幣對沖政策。

## 5. OUTLOOK ON THE GROUP'S FUTURE DEVELOPMENT

The year of 2023 is the first year to fully realize the spirit of the 20th National Congress of the Communist Party of China, and is also a crucial year for the implementation of the "14th Five-Year Plan", during which the transformation of the ecology and environmental protection industry continues to deepen. Under the background of high-quality development of environmental governance and the construction of a beautiful China, a "great era" of environmental protection has started with the theme of "pollution abatement and carbon reduction". The industrial scope is extending from end-to-end governance to the whole process of pollution abatement, carbon reduction and clean production, thus realizing coverage of the whole process involving pollution control, resource utilization, energy saving and carbon reduction. As such, the environmental protection industry will usher in a new round of development opportunities and will also create tremendous development opportunities for various sectors in the industry.

## 5. 本集團未來發展的展望

2023年是全面貫徹落實黨的二十大精神的開局之年，是實施「十四五」規劃承上啟下的攻堅之年，是生態環保產業變革持續深化的一年。在環境治理高質量發展和建設美麗中國背景下，「減污降碳」開啟環保「大時代」，產業範疇正在從末端治理向全過程減污降碳和清潔生產延伸，實現污染治理、資源利用、節能降碳等全鏈條全覆蓋。環保產業迎來新一輪發展機遇，各細分領域迎來重大發展契機。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

Under the guidance of the Group's business development plan relating to the "14th Five-Year Plan", we have positioned the two major sectors of "environmental governance and new energy+" as our dual development path, with a focus on advantageous industries and subdivided sectors. We will remain focused on our strategy and gradually realize the new development pattern of the integration of the four business segments, "gas, water, solid and dual-carbon new energy+", striving to develop into a first-class industry enterprise and comprehensive service provider for environmental governance and new energy+ in China.

The Group strives to formulate effective measures to achieve its development goal in each phase, and steadily promote the strategic layout of each business. Relying on the technology and experience of existing projects, the Group will stabilize the scale of the flue gas treatment business to form a solid foundation for the Group and provide effective support for the Company's transformation. The Group will allocate more resources to the water treatment business and actively expand the market share of the hazardous and solid waste treatment/disposal business. Besides, the Group will achieve rapid business growth through investment, mergers and acquisitions and technical cooperation, thus providing an additional growth driver to create new profit sources for the Group. Last but not least, the Group will plan its business deployment in advance to form a supporting basis with a view to continuously providing momentum for the Group's development.

在本集團「十四五」業務發展規劃的指引下，我們定位「環境治理、新能源+」兩大大板塊雙發展通道，聚焦優勢行業，專注細分領域，保持戰略定力，逐步實現「氣·水·固·雙碳新能源+」四位一體的新發展格局，致力發展成為國內一流的環境治理與新能源+產業集團和綜合服務提供商。

本集團着力制定實現每個階段性發展目標的有效舉措，穩步推動每項業務戰略佈局。憑借現有項目的技術和經驗，穩固煙氣治理業務規模，形成集團「基本盤」，為本公司轉型提供有效支撐；加大對水處理業務的資源投入，積極開拓危廢處理處置業務的市場份額，通過投資、併購、技術合作等不同方式實現業務快速增長，形成本集團「替代盤」，為本集團打造新的利潤支撐點；加快推進新能源業務，瞄準細分領域賽道，依托本集團發展戰略，提前進行業務佈局，形成本集團「支撐盤」，為本集團發展提供持續動力。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

The Group will continue to promote refined management and optimize human resources, as well as strengthen the construction of the corporate system and use digital technology to build a comprehensive intelligent management platform in order to improve management efficiency. Emphasizing on high authorization from management, strict assessment and incentive schemes, we will comprehensively improve our system management and control capabilities, and use refined management as a means to provide strong support and guarantee for the development of the Group. Focusing on the business development and transformation of the Group, we will optimize the organizational structure and workforce, activate organizational vitality, strengthen internal control mechanisms, standardize corporate governance and improve internal incentive mechanisms, so as to create a sound corporate platform to attract high-caliber talents.

The Group will adhere to innovation-driven development and increase its R&D efforts. Against the backdrop of “Carbon Peaking and Carbon Neutrality”, the technological R&D and innovation efforts of the Group will be more focused on new business sectors while expanding into other subdivided areas. Through the combination of technical cooperation and independent R&D, the Group will improve its own technological innovation capabilities and continuously achieve technological upgrades and breakthroughs to enhance its key technologies. By integrating resources such as technology, talents and markets, and taking into account specific business difficulties and needs, we will accelerate the transformation and application of technology and R&D results to build an advanced, scientific, standardized and high-quality low-carbon environmental protection service system.

持續推進精細管理，優化人力保障。加強本公司體系建設，利用數字化技術，建設綜合智能管理平台，提升管理效率。以「高授權、嚴考核、重激勵」為理念，全面提升系統管控能力，以精細化管理為手段，為本集團發展提供強有力的支撐和保障。圍繞本集團的業務發展與轉型，優化組織架構及人員編製，激活組織活力，強化內控機制，規範公司治理，完善內部激勵機制，打造良好的企業平台，吸引高端人才。

堅持創新驅動發展，加大研發力度。在「碳达峰·碳中和」背景下，本集團的技術研發創新方向將更加聚焦新業務領域，同時向其他細分領域拓展。通過技術合作和自主研發相結合的方式，提升自身技術創新能力，不斷實現技術升級和突破，打好關鍵核心技術攻堅戰。通過整合技術、人才、市場等資源，結合具體業務難點和需求，加快技術和研發成果的轉化和應用，構建先進科學、規範優質的低碳環保服務體系。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

Leveraging the power of the capital market, the Group will strive to realize industrial transformation and upgrading. Firstly, the Group will optimize the industrial layout by various means, including the introduction of strategic shareholder resources, investment, mergers and acquisitions and multi-channel fundraising. Focusing on its development strategy, the Company will effectively expand its new businesses through investment, mergers and acquisitions. The Group will also introduce professional institutions to provide funds for mergers and acquisitions in the industry, which will be conducive to the transformation and synergy of the Group's business.

借助資本市場力量，實現產業轉型升級。通過引入戰略股東資源、投資併購、多渠道資金募集等不同方式，優化產業佈局。圍繞公司發展戰略，通過投資併購形成新業務的有效擴張；引入專業機構，建立產業併購基金，助力本集團業務轉型和業務協同。

### SIGNIFICANT INVESTMENTS HELD, MATERIAL ACQUISITIONS AND DISPOSALS

### 持有的重大投資、重大收購事項及出售事項

#### (I) Disposals of GNM Shares

The Group conducted a series of on-market transactions (the “**GNM Share Disposals**”) from 30 December 2021 to 9 June 2022 to dispose of an aggregate of 11,944,000 Global New Material International Holdings Limited (“**GNM**”) shares (representing approximately 1.0% of the total issued GNM shares as at 10 August 2022) at an aggregate consideration of approximately HK\$70.4 million (excluding transaction costs), representing an average price of approximately HK\$5.9 per GNM Share. The consideration of each of the GNM Share Disposals represented the prevailing market prices of the GNM Shares at the respective time of each of the GNM Share Disposals and, after deducting transaction costs, was received by the Company in cash on settlement. Upon settlement of the GNM Share Disposals, the Group will cease to hold any GNM Shares. As a result of the GNM Share Disposals, the Group is expected to recognise a gain of approximately HK\$31.1 million. For further details, please refer to the Company's announcement dated 10 August 2022.

#### (I) 出售環球新材股份

於2021年12月30日至2022年6月9日期間，本集團曾進行一連串場內交易（「**環球新材股份出售事項**」），以總代價約70.4百萬港元（不包括交易成本）出售合共11,944,000股環球新材國際控股有限公司（「**環球新材**」）股份（佔於2022年8月10日已發行環球新材股份總數約1.0%），相當於平均價格為每股環球新材股份約5.9港元。各環球新材股份出售事項的代價指於各環球新材股份出售事項各自時間環球新材股份的現行市價，並經扣除交易成本後由本公司於結算時以現金收取。於環球新材股份出售事項結算後，本集團將不再持有任何環球新材股份。由於環球新材股份出售事項，本集團預期將確認收益31.1百萬港元。有關詳情，請參閱本公司日期為2022年8月10日的公告。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### (II) Further supplemental agreements in relation to acquisition of Qinghai Boqi

Beijing Boqi (being the purchaser) entered into a share transfer agreement dated 30 November 2021 (the “**Share Transfer Agreement**”) and a supplemental agreement dated 16 December 2021 to acquire an aggregate of 95% of the equity interests of Qinghai Boqi for a total consideration of RMB218.5 million. Qinghai Boqi, incorporated under the laws of the PRC, is principally engaged in solid hazardous waste management business, particularly, in the collection, stabilization and disposal of solid hazardous and dangerous wastes.

On 2 December 2022, Beijing Boqi entered into the further supplemental agreements to amend and supplement certain terms of the Share Transfer Agreement. Pursuant to the further supplemental agreement entered into by Beijing Boqi with, among others, Hainan Jinaier Investment Partnership (Limited Partnership) (海南吉乃爾投資合夥企業(有限合夥)) (“**Seller A**”), the total consideration for the acquisition of a total of 82% of the equity interests in Qinghai Boqi by Beijing Boqi and Hainan Boyuan Zhongying Enterprise Management Partnership (Limited Partnership) (海南博源眾盈企業管理合夥企業(有限合夥)), being a following co-investor (the “**Following Co-investor**”), from Seller A shall be adjusted to approximately RMB41.4 million, comprising RMB38.9 million and RMB2.5 million from Beijing Boqi and the Following Co-investor, respectively. Upon execution of the supplemental agreement, such amount of consideration shall be deemed to be fully settled. Pursuant to the further supplemental agreement with, among others, Liu Ang (劉昂) (“**Seller B**”), the total equity interest in Qinghai Boqi to be acquired by Beijing Boqi from Seller B shall be 15%. and the total consideration shall be adjusted to approximately RMB7.6 million. As at 2 December 2022, Beijing Boqi had already paid in accordance with the Share Transfer Agreement a total of approximately RMB14.5 million to Seller B, which exceeded the adjusted Seller B consideration by approximately RMB6.9 million. Such difference shall be settled by Seller B with his continuous provision of services to Qinghai Boqi, including business and project development.

#### (II) 有關收購青海博奇的進一步補充協議

北京博奇(為買方)訂立日期為2021年11月30日的股份轉讓協議(「**股份轉讓協議**」)及日期為2021年12月16日的補充協議,以按總代價人民幣218.5百萬元收購青海博奇合共95%股權。青海博奇根據中國法律註冊成立,主要從事固體有害廢棄物管理業務,尤其是固體有害危險廢棄物的收集、穩定及處置。

於2022年12月2日,北京博奇訂立進一步補充協議,以修訂及補充股份轉讓協議的若干條款。根據由北京博奇與(其中包括)海南吉乃爾投資合夥企業(有限合夥)(「**賣方A**」)訂立的進一步補充協議,北京博奇及海南博源眾盈企業管理合夥企業(有限合夥)(為跟隨投資一方)(「**跟投方**」)從賣方A收購青海博奇合共82%股權的總代價應調整至約人民幣41.4百萬元(包括分別由北京博奇及跟投方支付的人民幣38.9百萬元及人民幣2.5百萬元)。於簽訂補充協議後,上述代價應視作已悉數結付。根據由北京博奇與(其中包括)劉昂(「**賣方B**」)訂立的進一步補充協議,北京博奇擬從賣方B收購的青海博奇的總股權應為15%,而總代價應調整至約人民幣7.6百萬元。於2022年12月2日,北京博奇已根據股份轉讓協議向賣方B支付合共約人民幣14.5百萬元,超過經調整賣方B代價約人民幣6.9百萬元。該差額應由賣方B在持續向青海博奇提供服務(包括業務及項目開發)的同時結算。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析 (續)

Upon the completion, Qinghai Boqi will be held as to (i) 92% by Beijing Boqi; (ii) 5% by the Following Co-investor; and (iii) 3% by Seller B.

For further details, please refer to the Company's announcements dated 30 November 2021, 28 February 2022, 25 March 2022, 13 April 2022 and 2 December 2022.

#### (III) Disposal of Yuguang BOT Facilities

The Group entered into the termination agreement dated 30 December 2022 (the “**Termination Agreement**”) with Shanxi Yuguang, which is an independent third party of the Company, in relation to the disposal of the 2X300MW unit environmental protection facilities previously owned by the Group (the “**Yuguang BOT Facilities**”) at consideration of approximately RMB50.7 million. It was determined by the parties after arm's length negotiation with reference to (i) the asset value of the Yuguang BOT Facilities of approximately RMB50.7 million (tax excluded) as at 30 November 2021 appraised by an independent valuer; and (ii) the book value of the Yuguang BOT Facilities of approximately RMB53.4 million (tax excluded) as at 30 November 2021 pursuant to the audited report issued by an independent auditor. As a result of the disposal of the Yuguang BOT Facilities, the Group is expected to recognise a loss of approximately RMB2.4 million. For further details, please refer to the Company's announcement dated 30 December 2022.

於完成後，青海博奇將由(i)北京博奇持有92%權益；(ii)由跟投方持有5%權益；及(iii)由賣方B持有3%的權益。

有關詳情，請參閱本公司日期為2021年11月30日、2022年2月28日、2022年3月25日、2022年4月13日及2022年12月2日的公告。

#### (III) 出售昱光BOT設施

本集團於2022年12月30日與山西昱光（為本公司的獨立第三方）訂立終止協議（「終止協議」），據此，本集團按約人民幣50.7百萬元的代價出售本集團先前擁有的2X300MW機組環保設施（「昱光BOT設施」）。該代價乃經參考(i)獨立估值師評估的昱光BOT設施於2021年11月30日的資產價值約人民幣50.7百萬元（不含稅）；及(ii)根據獨立核數師出具的經審核報告，昱光BOT設施於2021年11月30日的賬面值約人民幣53.4百萬元（不含稅）後公平磋商釐定。由於出售昱光BOT設施，本集團預期將確認虧損約人民幣2.4百萬元。有關詳情，請參閱本公司日期為2022年12月30日的公告。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

#### (IV) Disposals of CRGL Shares

The Group conducted a series of on-market transactions (the “**CRGL Share Disposals**”) from 27 April 2022 to 21 February 2023 to dispose of an aggregate of 19,619,000 China Risun Group Limited (“**CRGL**”) shares (“**CRGL Shares**”) (representing approximately 0.44% of the total issued CRGL Shares as at 23 February 2023) at an aggregate consideration of approximately HK\$75.48 million (excluding transaction costs), representing an average price of approximately HK\$3.85 per CRGL Share. The consideration of each of the CRGL Share Disposals represented the prevailing market prices of the CRGL Shares at the respective time of each of the CRGL Share Disposals and, after deducting transaction costs, was received by the Company in cash on settlement. Upon settlement of the CRGL Share Disposals, the Group will cease to hold any CRGL Shares. As a result of the CRGL Share Disposals, the Group is expected to recognise a gain of approximately HK\$19.69 million. For further details, please refer to the Company’s announcement dated 23 February 2023.

Save as disclosed above, the Group had no significant investments held or material acquisitions and disposals of subsidiaries and associated companies during the Reporting Period and up to the date of this annual report.

#### (IV) 出售旭陽股份

於2022年4月27日至2023年2月21日，本公司進行一連串場內交易(「**旭陽股份出售事項**」)，以總代價約75.48百萬港元(不包括交易成本)出售合共19,619,000股中國旭陽集團有限公司(「**旭陽**」)股份(「**旭陽股份**」)(佔於2023年2月23日的已發行旭陽股份總數約0.44%)，相當於平均價格為每股旭陽股份約3.85港元。各旭陽股份出售事項的代價指於各旭陽股份出售事項各自時間旭陽股份的現行市價，而經扣除交易成本後由本公司於結算時以現金收取。於旭陽股份出售事項結算後，本集團將不再持有任何旭陽股份。由於旭陽股份出售事項，本集團預期將確認收益約19.69百萬港元。有關進一步詳情，請參閱本公司日期為2023年2月23日的公告。

除上述披露外，本集團於報告期內及截至本年報告日期概無持有重大投資，亦無重大附屬公司及關聯公司收購或處置事項。

## Management Discussion and Analysis (Continued)

### 管理層討論與分析 (續)

#### EMPLOYEE AND REMUNERATION POLICIES

As at 31 December 2022, the Group had 1,459 employees in total (as at 31 December 2021: 1,857 employees), substantially all of whom were based in the PRC. The Group has established labor union branches. Currently, the Group has entered into employment contracts with all employees, in which the position, duties, remuneration, employment benefits, training, confidentiality obligations relating to trade secrets and grounds for termination, among other things are specified pursuant to PRC Labor Law and other relevant regulations. The decrease in the number of employees compared to the last year was due to the Group's continuous increase in investment in its information technology construction, which improved the per capita efficiency of its projects and optimized part of the personnel structure in line with the needs of business transformation.

The remuneration package of the employees includes salaries, bonuses and allowances. Our employees also receive supplemental medical provision, transportation allowances, meal allowances and other benefits. The Company carried out performance appraisals of employees at all levels, and implemented a performance-based salary system for management, project managers, sales directors and authorized legal representatives, and promoted the realization of business indicators through the evaluation, reward and punishment mechanism based on responsibility and rights and the staged performance review mechanism. The appraisal results are linked to performance-based remuneration and annual performance bonus. Taking into account of the characteristics of different business segments, the Company has established, improved and implemented various reward systems. By actively promoting the excess profit sharing mechanism, we has encouraged management team and employees to exert their subjective initiative to create greater efficiency for the Company. In compliance with applicable PRC regulations, the Company has contributed to social insurance funds, including pension plans, medical insurance, work-related injury insurance, unemployment insurance and maternity insurance, and housing funds for all its employees.

#### 僱員及薪酬政策

於2022年12月31日，本集團共聘用1,459名僱員（於2021年12月31日：1,857名僱員），其中絕大多數僱員常駐中國。本集團均設有獨立工會分支。目前，本集團已與全部員工訂立了勞動合同，按照中國勞動法和其他相關法規的規定，明確約定了僱員的職位、職責、薪酬、員工福利、培訓、有關商業秘密的保密責任及終止理由等事項。僱員人數較上年減少是由於本集團持續加大信息化建設投入，提升了項目人均效率及結合業務轉型所需進行了部分人員結構優化。

我們的員工的薪酬組合包括薪金、獎金及津貼。我們的員工亦享有補充醫療、交通補貼、午餐津貼及其他福利費。我們推行全員業績考核，在管理層、項目經理、銷售總監、特許法代崗位執行績效工資制，通過問責權利相結合的考評獎懲機制與階段性績效回顧機制，促進經營指標實現；考核結果與績效薪資、年度績效獎金掛鉤；結合不同業務板塊特點，建立完善各類獎勵制度並實施；積極推進超額利潤共享機制，鼓勵管理團隊及員工發揮主觀能動性，為本公司創造更好的效益。我們已按國家要求為員工繳納社保基金（包括養老保險、基本醫療保險、工傷保險、失業保險及生育保險）及住房公積金。



## Management Discussion and Analysis (Continued)

### 管理層討論與分析(續)

The employees of the subsidiaries of the Group established in the PRC (other than Hong Kong) participate in a contribution retirement benefit plan managed by the local municipal government in the locations in which they operate. The Group's PRC subsidiaries are required to contribute a certain percentage of their respective employees' payroll to the retirement benefit plan in accordance with the rules of the contribution retirement benefit plan. Employees of these subsidiaries are entitled to retirement benefits from the abovementioned retirement plan at their normal retirement age. The Group also participates in a pension scheme under the rules and regulations of Mandatory Provident Fund Scheme (the "MPF Scheme") for all its qualifying employees in Hong Kong. Under the MPF Scheme, the employer and its employees are each required to make contributions to the plan at 5% of the employees' relevant income, subject to a cap of monthly relevant income of HK\$30,000. Contributions to the MPF Scheme vest immediately. The Group's contributions to the defined contribution schemes vest fully and immediately with the employees. Accordingly, (i) for the years ended 31 December 2021 and 2022, there was no forfeiture of contributions under the defined contribution schemes; and (ii) there were no forfeited contributions available for the Group to reduce its existing level of contributions to the defined contribution schemes as at 31 December 2022. No forfeited contributions may be used if there is forfeited contributions.

### MAJOR SUBSEQUENT EVENTS

Save as disclosed in this annual report, as at the approval date of the consolidated financial statements, the Group had no significant events after the Reporting Period which need to be disclosed.

本集團於中國(香港除外)成立的附屬公司的僱員參與該等公司營運所在的地方市政府機關管理的供款退休福利計劃。本集團的中國附屬公司須根據供款退休福利計劃的規則，將其各自僱員薪金的某個百分比向退休計劃作出供款。該等附屬公司僱員於達致正常退休年齡時有權自上述退休計劃享有退休福利。本集團亦為其於香港的所有合資格僱員參與強制性公積金計劃(「強積金計劃」)規則及規例下的退休金計劃。根據強積金計劃，僱主及其僱員各自均須按僱員有關收入之5%向計劃作出供款，而每月有關收入的上限為30,000港元。強積金計劃供款即時歸屬。本集團對界定供款計劃的供款悉數及即時歸屬予僱員。據此，(i)截至2021年及2022年12月31日止年度，界定供款計劃項下並無被沒收供款；及(ii)截至2022年12月31日，並無已沒收供款可供本集團於減少其現有對界定供款計劃的供款水平。若有已沒收供款，亦不得使用已沒收供款。

### 主要期後事項

除本年報告內披露外，於綜合財務報表批准日期，本集團並無於報告期後發生而須予披露的重大事件。

## Major Events for Boqi in 2022 2022年博奇公司大事記

1. 2022年3月，獲得2021年度鋼鐵行業大氣治理環保企業首選品牌。

1. In March 2022, the Company won the “2021 Preferred Brand for Atmospheric Treatment and Environmental Protection Enterprises in the Steel Industry”.



2. 2022年4月6日，本集團中標其第一個造紙行業污水處理項目－山東博匯紙業股份有限公司製漿造紙污水處理改造EPC項目。

2. On 6 April 2022, the Group won the bid for the Upgrade EPC Project of Pulp and Paper Sewage Treatment of Shandong Bohui Paper Co., Ltd., its first sewage treatment project in the paper manufacturing industry.



## Major Events for Boqi in 2022 (Continued)

### 2022年博奇公司大事記(續)

3. 2022年6月24日，本集團主題為「廿念不忘，行則將至」的二十週年慶典活動在北京成功召開。

3. On 24 June 2022, the Group's 20th anniversary celebration event with the theme of "Making Progress After Twenty Years of Unforgettable Moments" was successfully held in Beijing.



4. 2022年7月27日，本集團與中廣核環保產業有限公司簽署了戰略合作協議。

4. On 27 July 2022, the Group and CGN Environmental Protection Industry Co., Ltd. signed a strategic cooperation agreement.



## Major Events for Boqi in 2022 (Continued)

## 2022年博奇公司大事記(續)

5. 2022年7月28日，本集團與湖南永清環境科技產業集團有限公司簽署戰略合作協議。

5. On 28 July 2022, the Group signed a strategic cooperation agreement with Hunan Yongqing Environmental Technology Industry Group Co., Ltd.



6. 2022年8月25日，天津振興水泥窯SCR超低排放項目通過72H試運行，是國內第一條具備協同處置功能的水泥窯中溫中塵超低排放項目，是與金隅集團戰略合作的首個項目。

6. On 25 August 2022, the Cement Kiln SCR Ultra-low Emission Project of Tianjin Zhenxing passed the 72H trial operation. It is the first cement kiln medium-temperature and medium-dust ultra-low emission project with co-processing function in China. It is our first project under the strategic cooperation with BBMG Corporation.



## Major Events for Boqi in 2022 (Continued)

### 2022年博奇公司大事記(續)

7. 2022年9月，參加「北極星杯」2022煙氣治理影響力企業評選活動，獲得「鋼鐵煙氣治理影響力企業」獎項。
7. In September 2022, the Company won the “Influential Enterprise of Steel Flue Gas Treatment Award” in the Most Influential Flue Gas Treatment Enterprises Selection of “Polaris Cup” in 2022.



8. 2022年11月，本集團與北京睿能世紀科技有限公司簽署戰略合作協議，入股睿能世紀公司，成功進軍儲能行業，推動產業升級。
8. In November 2022, the Group and Beijing Ruineng Century Technology Co., Ltd. signed a strategic cooperation agreement to become a shareholder of Ruineng Century, successfully entering the energy storage industry and thereby promoting industrial upgrading.



## Major Events for Boqi in 2022 (Continued)

## 2022年博奇公司大事記(續)

9. 2022年12月，本集團斬獲「2022 AI優質職場卓越財富共享獎」。
9. In December 2022, the Group won the “2022 AI Quality Workplace Excellence Wealth Sharing Award”.



## Corporate Governance Report

### 企業管治報告

The Board is pleased to present this corporate governance report in the annual report of the Company for the year ended 31 December 2022.

#### CORPORATE GOVERNANCE CODE

The Company is committed to maintaining high standards of corporate governance to safeguard the interests of the shareholders of the Company (the “**Shareholder(s)**”) and to enhance corporate values and accountability. The Company has adopted the Corporate Governance Code (the “**CG Code**”) as set out in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange (the “**Listing Rules**”).

Mr. Zeng Zhijun assumed the dual roles of the chairman and the chief executive officer, which constitutes a deviation from code provision C.2.1 of the CG Code. With extensive experience in the environmental protection industry, Mr. Zeng Zhijun is responsible for the overall management, decision making and strategy planning of our Company and has been instrumental to our Group’s growth and business expansion. Since Mr. Zeng Zhijun is one of the key persons of for our Group’s management, our Board considers that vesting the roles of the chairman and the chief executive officer in the same person, Mr. Zeng Zhijun, would not create any potential harm to the interest of our Group and it is, on the contrary, beneficial to the management of our Group. In addition, the operation of the senior management of our Group and our Board, which are comprised of experienced individuals, effectively checks and balances the power and authority of Mr. Zeng Zhijun. Our Board currently comprises one executive Director (including Mr. Zeng Zhijun), four non-executive Directors and three independent non-executive Directors and therefore has a fairly strong independence element in its composition. Therefore, the Board considers that the deviation from the CG Code is appropriate and justified.

In order to maintain good corporate governance and to ensure Company’s compliance with code provisions of the CG Code, the Board will regularly review the need to appoint different individuals to perform the roles of the chairman and the chief executive officer separately. Save as disclosed herein, the Company complied with the code provisions as set out in the CG Code during the Reporting Period. The Company will continue to review and enhance its corporate governance practices to ensure compliance with the CG Code.

董事會欣然呈列本公司截至2022年12月31日止年度之年報所載企業管治報告。

#### 企業管治守則

本公司致力維持高水平的企業管治，以保障本公司股東（「**股東**」）利益及提升企業價值及問責性。本公司已採納聯交所證券上市規則（「**上市規則**」）附錄十四所載的企業管治守則（「**企業管治守則**」）。

曾之俊先生擔任主席與行政總裁的雙重角色，偏離企業管治守則的守則條文第C.2.1條的規定。憑藉在環保行業的豐富經驗，曾之俊先生負責本公司的整體管理、決策及戰略規劃，對本集團的增長及業務擴展起重要作用。由於曾之俊先生是本集團管理層主要成員之一，董事會認為由曾之俊先生一人肩負主席與行政總裁的角色，不會對本集團的利益造成任何潛在損害，相反有利於本集團的管理。此外，本集團的高級管理層及董事會由富經驗的人員組成，其運作可有效地制衡曾之俊先生的權力及職權。董事會現時由一名執行董事（包括曾之俊先生）、四名非執行董事及三名獨立非執行董事組成，其成員具有頗強的獨立元素。因此，董事會認為偏離企業管治守則屬適當並有理據。

為了維持良好企業管治，並確保本公司遵守企業管治守則的守則條文，董事會將定期檢討是否需要委任不同人士，以獨立履行主席及行政總裁的角色。除本文披露者外，本公司於報告期間一直遵守企業管治守則所載的守則條文。本公司將繼續檢討並提升其企業管治常規，以確保遵守企業管治守則。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### CORPORATE STRATEGY AND CULTURE

We always adhere to the philosophy of “service builds trust, and professionalism creates value” and the concept of “let all people live under the blue sky and white clouds”. Leveraging on its solid experience and professional capabilities, the Group has helped its clients to greatly reduce pollutant emissions and effectively improve their production efficiencies. In addition, taking a customer-oriented approach, the Company strives to meet the ecological, green and environmental protection needs of customers in an all-round way. Through the management policy of “emphasizing on authorization from management, strict assessment and incentive schemes”, we can stimulate the vitality of the team and create value for the corporate.

The Group is committed to becoming a world-class comprehensive environmental industry group and a smart environmental management service provider. The Group is led by a motivated management and implements a comprehensive career development system with competitive remuneration and benefits designed to attract, motivate and retain talented people at all levels. The Group believes that its corporate culture enhances its employees’ sense of belonging and responsibility that enables the Group to deliver long-term sustainable growth and success.

The Board assumes responsibility for establishing the Group’s strategy to align with its mission and corporate culture. In view of our “14th Five-Year Plan” strategic goals and guidelines, the Group has made deployment on two major areas of “environmental governance and new energy + (renewable)”, focusing on advantageous industries and subdivided sectors to maintain its strategic plan. The Group pursues its sustainable development driven by the philosophy of “people, organization, mechanism and culture”, so as to promote its cultural concept of “development and innovation relying on profound bases” and establish the corporate spirit of “integrity, responsibility, innovation and dedication”. Driven by its strategic positioning and corporate culture, the Group has made new progress in the expansion of each business segments. For details, please refer to the section headed “Chairman’s Statement” and section headed “Management Discussion and Analysis” in this annual report.

#### 企業策略及文化

我們始終堅持「服務建立信任、專業創造價值」的信念和「讓所有人生活在藍天白雲之下」的理念。憑藉豐富的經驗和專業能力，本集團已幫助客戶大幅減少污染物排放，有效提高生產效率。此外，本公司堅持以客戶為本，全方位滿足客戶在生態、綠色及環保方面的需求。通過「高授權、嚴考核、重激勵」的管理方針，激發團隊活力，為企業創造價值。

本集團致力於成為國際一流的綜合性環境產業集團和智慧環境管理服務商。本集團由積極進取的管理層領導，並實施全面的職業發展體系，提供具有競爭力的薪酬和福利，旨在吸引、激勵和留住各級人才。本集團相信，其企業文化可增強員工的歸屬感和責任感，使本集團能夠實現長期可持續增長和成功。

董事會負責制定本集團戰略，以與其使命和企業文化保持一致，本集團圍繞我們的「十四五」戰略目標及方針，定位「環境治理、新能源+(再生)」兩大領域，聚焦優勢行業，專注細分領域，保持戰略定力。把「人·組織·機制·文化」作為推動公司持續發展的基石，弘揚「博大精深·守正出奇」的文化理念；建立「誠信·責任·創新·奉獻」企業精神。在集團戰略定位和企業文化的推動下，集團各業務領域板塊均有新拓展。有關詳請，請參閱本年報「主席報告書」及「管理層討論與分析」一節。





## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### MODEL CODE FOR SECURITIES TRANSACTIONS

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers (the “**Model Code**”) set out in Appendix 10 to the Listing Rules as its code of conduct regarding dealings in the securities of the Company. Specific enquiries have been made to all Directors, the Directors have confirmed that they had strictly complied with the required standards set out in the Model Code during the Reporting Period. The Board has also adopted the Model Code to regulate all dealings by employees who are likely to be in possession of unpublished inside information of the Company in respect of securities in the Company as referred to in code provision C.1.3 of the CG Code. No incident of non-compliance with the Model Code by the Company’s relevant employees was noted during the Reporting Period after making reasonable enquiry.

#### THE BOARD

##### Responsibilities

The Board is responsible for the overall leadership of the Group, oversees the Group’s strategic decisions and monitors business and performance. The Board has delegated the authority and responsibility for day-to-day management and operation of the Company to the senior management of the Company. To oversee particular aspects of the Company’s affairs, the Board has established three Board committees including the Audit Committee, the Remuneration Committee and the Nomination Committee (together, the “**Board Committees**”). The Board has delegated to the Board Committees responsibilities as set out in their respective terms of reference.

All Directors shall ensure that they carry out duties in good faith, in compliance with applicable laws and regulations, and in the interests of the Company and its shareholders at all times.

#### 證券交易的標準守則

本公司已採納上市規則附錄十所載的上市發行人董事進行證券交易的標準守則(「**標準守則**」)作為買賣本公司證券的操守守則。經向全體董事作出特定查詢後，董事確認彼等於報告期內已嚴格遵守標準守則所載的規定標準。董事會亦已採納標準守則以規管可能獲知本公司非公開內幕消息之僱員進行有關本公司證券交易的所有行為(見企業管治守則守則條文第C.1.3條)。經作出合理查詢後，於報告期間內並未發現本公司之有關僱員未有遵守標準守則之情況。

#### 董事會

##### 職責

董事會負責本集團的整體領導、監督本集團的戰略決定以及監察業務及表現。董事會向本公司高級管理層授出本公司日常管理及營運的權力及職責。為監察本公司事務特定範疇，董事會已設立三個董事委員會，包括審核委員會、薪酬委員會及提名委員會(統稱「**董事委員會**」)。董事會已授予董事委員會載於其各自職權範圍的職責。

全體董事須確保彼等一直本著真誠、遵守適用法律及法規及符合本公司及其股東利益的方式履行職責。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### Directors' and Senior Management's Liability Insurance and Indemnity

The Company has arranged appropriate liability insurance to indemnify the Group's Directors and senior management for their liabilities arising out of corporate activities. The insurance coverage will be reviewed on an annual basis.

#### Board Composition

The Board currently comprises one executive Director, namely Mr. Zeng Zhijun, four non-executive Directors, namely Mr. Cheng Liquan Richard, Mr. Zheng Tony Tuo, Mr. Zhu Weihang and Mr. Chen Xue and three independent non-executive Directors, namely Mr. Liu Genyu, Dr. Xie Guozhong and Mr. Lu Zhifang.

Since the Listing Date and up to the date of this annual report, the Board at all times met the requirements of the Rules 3.10(1) and 3.10(2) of the Listing Rules relating to the appointment of at least three independent non-executive Directors with at least one independent non-executive Director possessing appropriate professional qualifications or accounting or related financial management expertise. Among the three independent non-executive Directors, Dr. Xie Guozhong has appropriate professional qualifications or accounting or related financial management expertise as required by Rule 3.10(2) of the Listing Rules.

#### Board Diversity Policy

Pursuant to the code provision Rule 13.92 of the Listing Rules, listed issuers are required to adopt a board diversity policy. The policy specifies that in designing the composition the Board, board diversity shall be considered from a number of aspects, including but not limited to gender, age, cultural and educational background, professional experience, skills and knowledge. The appointment of Directors will be based on meritocracy, and candidates will be evaluated against objective criteria, having due regard for the benefits of diversity of the Board. Selection of candidates will be based on a range of diversity perspectives, including but not limited to gender, age, culture, educational background, professional experience, knowledge and skills.

#### 董事及高級管理層的責任保險及彌償

本公司已為本公司董事及高級管理層安排適當的責任保險，以彌償其因從事企業活動而產生的責任，保險的保障範圍將於每年予以檢討。

#### 董事會的組成

董事會目前由一名執行董事(即曾之俊先生)、四名非執行董事(即程里全先生、鄭拓先生、朱偉航先生及陳學先生)及三名獨立非執行董事(即劉根鈺先生、謝國忠博士及陸志芳先生)組成。

自上市日期起直至本年報日期止，董事會一直符合上市規則第3.10(1)及3.10(2)條，有關委任至少三名獨立非執行董事而當中至少一名獨立非執行董事須具備合適專業學歷或會計或相關財務管理專業知識的規定。於三名獨立非執行董事中，謝國忠博士具備上市規則第3.10(2)條所規定的合適專業學歷或會計或相關財務管理的專業知識。

#### 董事會成員多元化政策

根據上市規則第13.92條，上市發行人須採納董事會成員多元化政策。該政策訂明董事會於設定董事會成員組合時會從多個方面考慮董事會成員多元化，包括但不限於性別、年齡、文化及教育背景、專業經驗、技能及知識。董事的委任均以用人唯才為原則，並在評估人選時考慮客觀條件妥善顧及董事會成員多元化的裨益。甄選董事會人選將按一系列多元化範疇為基準，包括但不限於性別、年齡、文化、教育背景、專業經驗、知識及技能。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

In 2022, our Nomination Committee reviewed the structure and composition of the Board and noted the requirements relating to board diversity policy under the Listing Rules and Corporate Governance Guide for Boards and Directors published by the Stock Exchange. Currently, the Board is composed of members of a single gender. With a view to achieving a sustainable and balanced development, the Company sees increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and its sustainable development. Going forward, the Board would use its best endeavor and on suitable basis to seek female candidates into the Board as appropriate. The Board intends to appoint at least one female Director by the end of 2023. As of 31 December 2022, the gender ratio of all employees (including senior management) of the Group was approximately 75.3% (male) to 24.7% (female). The Company has been committed to the principle of employment equality between men and women and prohibited gender discrimination. However, as the Company is an ecological governance enterprise that provides environmental governance and comprehensive services for new energy+ industrial enterprises, the main business of the Group is the construction of projects and operation and maintenance services. Due to objective factors such as physical fitness and the nature of work, positions relating to production functions may not be preferred for female employees. Save for employees with production functions, the ratio of male to female in other employees of the Company is relatively balanced. The Group will also continue to take steps to promote gender diversity at all levels of the Group and make employment decisions based upon its advantages and appropriate objective criteria. We will also continue to ensure that there is gender diversity when recruiting staff at mid to senior level so that we will have a pipeline of female senior management and potential successors to our Board in due time to ensure gender diversity of our Board. Our Group will continue to emphasize training of female talent and providing long-term development opportunities for our female staff.

於2022年，提名委員會已檢討董事會的架構及組成，並注意到上市規則項下有關董事會多元化政策的規定，以及聯交所發佈的有關董事會及董事的企業管治指引。目前，董事會由單一性別的董事組成。為了達致可持續及平衡的發展，本公司意識到董事會層面的日漸多元化是支持戰略目標的達成及可持續發展之關鍵要素。展望未來，董事會將在適當基礎上盡力物色合適的女性人選加入董事會。董事會有意於2023年底前委任至少一名女董事。於2022年12月31日，本集團全體員工(包括高級管理人員)的性別比例約為75.3%(男性)比24.7%(女性)。本公司一直致力於男女平等就業的原則，禁止性別歧視。然而，由於本公司是一家為工業企業提供環境治理及新能源+綜合服務的生態治理企業，本集團主要業務為工程建設和運行維護服務，由於身體素質及工作性質等客觀因素，生產職能相關職位可能不是女性員工首選。除生產職能僱員之外，本公司其他僱員男女比例較為均衡。本集團也將繼續採取措施，在本集團各職級促進性別多元化，並根據優勢和適當的客觀標準作出僱傭決定。我們亦會繼續確保在招聘中高層員工時考慮到性別的平衡，使我們將可為高級管理層及潛在董事會繼任人適時建立女性人才庫，以確保董事會的性別平衡。本集團將繼續著重女性人才的培訓，並為女性員工提供長遠發展機會。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

The composition of the Board will be disclosed in the Corporate Governance Report every year and the Nomination Committee will supervise the implementation of this policy. The Nomination Committee will review the effectiveness of this policy, as appropriate discuss any revisions that may be required, and recommend any such revisions to the Board for consideration and approval.

As at the date of this annual report, the diversity of the Board is illustrated as below. Further details on the biographies and experience of the Directors are set out in the section headed “Directors and Senior Management” in this annual report.

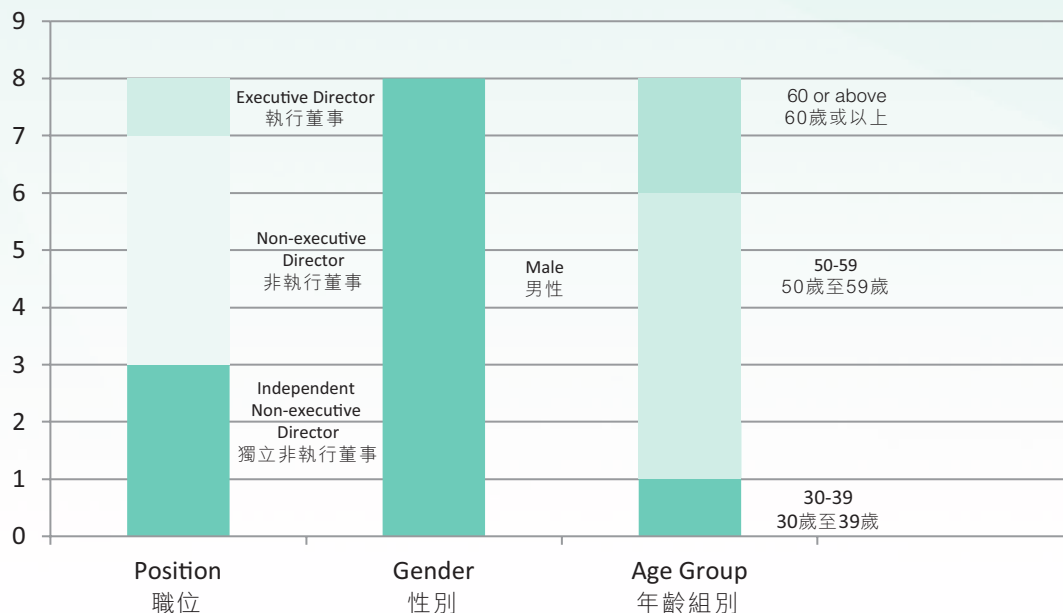
本公司將每年在企業管治報告中披露董事會的組成。提名委員會將監察本政策的實施。提名委員會將在適當時候檢討本政策的成效，並討論任何或需作出的修訂，且就任何該等修訂向董事會提出建議，以供審議及批准。

於本年報日期，董事會成員多元化列示如下。有關董事履歷及經驗的進一步詳情載於本年報「董事及高級管理層」一節。



## Corporate Governance Report (Continued)

### 企業管治報告(續)



The Nomination Committee has reviewed the membership, structure and composition of the Board, and is of the opinion that the structure of the Board is reasonable, and the experiences and skills of the Directors in various aspects and fields can enable the Company to maintain high standard of operation.

#### Independence of the Independent Non-executive Directors

The Company has received written annual confirmation from each independent non-executive Director of his independence pursuant to the requirements of the Listing Rules. After the Board reviews the written annual confirmation from of all the non-executive Director of his independence, the Board considers them to be independent in accordance with the independence guidelines as set out in the Listing Rules. The Board is not aware of the occurrence of any events which would cause it to believe that the independence of any of the independent non-executive Directors has been impaired up to the date of this annual report.

None of the Directors has any personal relationship (including financial, business, family or other material/relevant relationship), with any other Director.

提名委員會已檢討董事會成員、架構及組成，認為董事會的架構合理，而董事亦具備多方面及多領域的經驗及技能，致使本公司維持高營運水平。

#### 獨立非執行董事之獨立性

本公司已接獲各獨立非執行董事根據上市規則規定所作出有關其獨立性的年度確認書。董事會已審閱全體獨立非董事的獨立性確認書，並認為，根據上市規則所載的獨立指引，彼等均為獨立人士。截至本年報日期，董事會並不知悉已發生任何事項，致使其相信任何獨立非執行董事之獨立性受損。

概無董事與任何其他董事有任何個人關係(包括財務、業務、家庭或其他重大／相關關係)。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

All Directors, including independent non-executive Directors, have brought a wide spectrum of valuable business experience, knowledge and professionalism to the Board for its efficient and effective functioning. Independent non-executive directors are invited to serve on the Audit Committee, the Remuneration Committee and the Nomination Committee.

In regard to the CG Code provision requiring directors to disclose the number and nature of offices held in public companies or organizations and other significant commitments as well as their identity and the time involved to the issuer, Directors have agreed to disclose their commitments to the Company in a timely manner.

#### Induction and Continuous Professional Development

Pursuant to code provision C.1.4 of the CG Code, all Directors should participate in continuous professional development to develop and refresh their knowledge and skills to ensure that their contribution to the Board remains informed and relevant.

Each newly appointed Director has been provided with necessary induction and information to ensure that he has a proper understanding of the Company's operations and businesses as well as his responsibilities under relevant statutes, laws, rules and regulations.

During the Reporting Period, all the Directors (namely Mr. Zeng Zhijun, Mr. Cheng Liquan Richard, Mr. Zheng Tony Tuo, Mr. Zhu Weihang, Mr. Chen Xue, Mr. Liu Genyu, Mr. Xie Guozhong and Mr. Lu Zhifang) have attended the training courses conducted by The Hong Kong Chartered Governance Institute. The content of such training related to ongoing responsibilities and obligations of directors and supervisors and related regulatory penalties. Accordingly, the compliance awareness and ability to perform duties of all directors have been improved. In addition, continuing briefing and professional development to Directors will be arranged whenever necessary.

全體董事(包括獨立非執行董事)均為董事會帶來多種領域的寶貴業務經驗、知識及專業技能,使其高效及有效地運作。獨立非執行董事獲邀成為審核委員會、薪酬委員會及提名委員會的一員。

就企業管治守則條文而言,董事須披露於公眾上市公司或機構所擔任職務的數目及性質以及其他重大職務承擔,以及彼等於發行人公司任職的身份及時間,而董事已同意適時向本公司披露其職務承擔。

#### 入職培訓及持續專業發展

根據企業管治守則的守則條文第C.1.4條,全體董事須參與持續專業發展,以發展及更新彼等的知識及技能,藉此確保彼等對董事會所作貢獻為知情及相關。

每名新委任董事均已獲提供必要的入職培訓及數據,確保其對本公司營運及業務以及其於相關條例、法律、規則及法規的責任有適當程度的了解。

於報告期內,全體董事(曾之俊先生、程里全先生、鄭拓先生、朱偉航先生、陳學先生、劉根鈺先生、謝國忠先生及陸志芳先生)均已參與由香港公司治理公會提供的培訓課程,而培訓內容有關董事、監事的持續責任與義務及其監管處罰。據此,全體董事的合規意識與履職能力得到提升。此外,本公司將於有需要時為董事安排持續簡報及專業發展。



## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### Chairman and Chief Executive Officer

Mr. Zeng Zhijun, our chief executive officer, has been appointed as the Chairman of the Board with effect from 29 March 2021. As such, Mr. Zeng has assumed the dual roles of the Chairman and the chief executive officer with effect from 29 March 2021, which constitutes a deviation from code provision C.2.1 of the CG Code. With extensive experience in the environmental protection industry, Mr. Zeng is responsible for the overall management, decision-making and strategy planning of our Company and has been instrumental to our Group's growth and business expansion. Since Mr. Zeng is one of the key persons of for our Group's management, our Board considers that vesting the roles of the chairman and the chief executive officer in the same person, Mr. Zeng, would not create any potential harm to the interest of our Group and it is, on the contrary, beneficial to the management of our Group. In addition, the operation of the senior management of our Group and our Board, which are comprised of experienced individuals, effectively checks and balances the power and authority of Mr. Zeng. Our Board currently comprises one executive Director (i.e. Mr. Zeng), four non-executive Directors and three independent non-executive Directors and therefore has a fairly strong independence element in its composition. Therefore, the Board considers that the deviation from the CG Code is appropriate and justified.

In order to maintain good corporate governance and to ensure Company's compliance with code provisions of the CG Code, the Board will regularly review the need to appoint different individuals to perform the roles of the chairman and the chief executive officer separately.

#### Board Independence

The Group has established mechanism to ensure independent views and input are available to the Board and such mechanisms will be reviewed annually by the Board. During the Reporting Period, the Board has reviewed the implementation and effectiveness of the following mechanisms:

#### 主席及行政總裁

我們的行政總裁曾之俊先生自2021年3月29日起獲委任為董事會主席。因此，曾先生自2021年3月29日起擔任主席與行政總裁的雙重角色，偏離企業管治守則的守則條文第C.2.1條的規定。憑藉在環保行業的豐富經驗，曾先生負責本公司的整體管理、決策及戰略規劃，對本集團的增長及業務擴展起重要作用。由於曾先生是本集團管理層主要成員之一，董事會認為由曾先生一人肩負主席與行政總裁的角色，不會對本集團的利益造成任何潛在損害，相反有利於本集團的管理。此外，本集團的高級管理層及董事會由富經驗的人員組成，其運作可有效地制衡曾先生的權力及職權。董事會現時由一名執行董事(即曾先生)、四名非執行董事及三名獨立非執行董事組成，其成員具有頗強的獨立元素。因此，董事會認為偏離企業管治守則屬適當並有理據。

為了維持良好企業管治，並確保本公司遵守企業管治守則的守則條文，董事會將定期檢討是否需要委任不同人士，以獨立履行主席及行政總裁的角色。

#### 董事會獨立性

本集團已設立機制以確保董事會可獲得獨立意見及信息，而該等機制將由董事會每年檢討。報告期內，董事會已檢討以下機制的實施情況和有效性：

## Corporate Governance Report (Continued)

## 企業管治報告(續)

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Three out of the eight Directors are independent non-executive Directors, which satisfies the requirement of the Listing Rules that at least one-third of the Board are independent non-executive Directors;</p>                                                                                                                                                                                                                                                                                                                                                          | <p>1. 八名董事中有三名獨立非執行董事，符合上市規則董事會至少三分之一為獨立非執行董事的規定；</p>                                                                                 |
| <p>2. The Nomination Committee will assess the independence of a candidate who is nominated to be a new independent non-executive Director before appointment and the continued independence of the current long-serving independent non-executive Directors on an annual basis. All independent non-executive Directors are required to submit a written confirmation to the Company annually to confirm the independence of each of them and their immediate family members, and their compliance with the requirements as set out in the Rule 3.13 of the Listing Rules;</p> | <p>2. 提名委員會每年均會在委任前對獲提名為新獨立非執行董事的候選人的獨立性以及現時長期任職獨立非執行董事的持續獨立性進行評估。所有獨立非執行董事均須每年向本公司提交書面確認，以確認彼等及其直系親屬的獨立性，以及彼等是否遵守上市規則第3.13條所載規定；</p> |
| <p>3. The Chairman of the Board will meet with the independent non-executive Directors at least annually without the presence of other executive Directors;</p>                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>3. 董事會主席將至少每年一次在其他執行董事不在場的情況下與獨立非執行董事會面；</p>                                                                                       |
| <p>4. Any Director (including independent non-executive Directors) who has material interest in any contract, transaction or arrangement shall abstain from voting and not be counted in the quorum on any Board resolution approving the same; and</p>                                                                                                                                                                                                                                                                                                                         | <p>4. 在任何合約、交易或安排中擁有重大利益的任何董事(包括獨立非執行董事)均須就批准上述事項的任何董事會議案放棄投票且不計入法定人數；及</p>                                                           |
| <p>5. No equity-based remuneration with performance-related elements will be granted to independent non-executive Directors.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>5. 獨立非執行董事將不會獲授與業績掛鈎的權益核算薪酬。</p>                                                                                                   |

**Appointment and re-election of Directors**

During the Reporting Period, the executive Directors has entered into a service contract with the Company for an initial term of three years commencing from 28 February 2018. Such service contracts were renewed on similar terms and effective from 28 February 2021 for another term of three years. Subsequent to the Reporting Period, Mr. Cheng Liquan Richard was re-designated from executive Director to non-executive Director with effect from 24 March 2023. As a result of the re-designation, Mr. Cheng has entered into a new appointment letter with the Company for a term of three years commencing from 24 March 2023.

**董事委任及重選**

於報告期內，執行董事已與本公司訂立服務合約，初步任期自2018年2月28日起計為期三年。該等服務合約已按相若條款續期，自2021年2月28日起生效，而重續之年期為三年。於報告期後，程里全先生已由執行董事調任為非執行董事，自2023年3月24日起生效。由於調任，程先生已與本公司訂立新委任函件，自2023年3月24日起為期三年。



## Corporate Governance Report (Continued)

### 企業管治報告(續)

During the Reporting Period, each of the non-executive Directors and the independent non-executive Directors has signed an appointment letter with the Company for an initial term of three years commencing from 28 February 2018. Such appointment letters were renewed on similar terms and effective from 28 February 2021 for another term of three years.

None of the Directors (including the Directors proposed for re-election at the forthcoming Annual General Meeting (“AGM”) has a service contract which is not determinable by the Group within one year without payment of compensation (other than statutory compensation).

In accordance with Article 16.18 of the Company’s amended and restated memorandum and articles of association, at each annual general meeting, one-third of the Directors for the time being shall retire from office by rotation provided that every Director shall be subject to retirement at least once every three years. At the forthcoming AGM, Mr. Zeng Zhijun, Mr. Cheng Liquan Richard and Mr. Lu Zhifang will retire from offices as Directors by rotation at the forthcoming AGM and, being eligible, will offer themselves for re-election as Directors. Shareholders of the Company entitled to vote at the forthcoming AGM for the election of Directors will elect a Board consisting of at least the minimum number of Directors set under the articles of association of the Company and all the Directors shall cease to hold office immediately before such election, but are eligible for re-election at such meeting.

The procedures and process of appointment, re-election and removal of directors are set out in the Company’s amended and restate memorandum and articles of association. The Nomination Committee is responsible for reviewing the Board composition, monitoring and make recommendations to the Board on the appointment, re-election and succession planning of Directors, in particular the chairman and the chief executive officer.

於報告期內，各非執行董事及獨立非執行董事已與本公司簽訂委聘書，初步任期自2018年2月28日起計為期三年。該等委聘書已按相若條款續期，自2021年2月28日起生效，而重續之年期為三年。

概無董事(包括擬在應屆股東週年大會(「股東週年大會」)上重選的董事)訂立本公司不可於一年內在毋須支付賠償(法定賠償除外)的情況下終止的服務合約。

根據本公司的經修訂和重述的組織章程大綱及細則第16.18條細則，於每屆股東週年大會上，當時三分之一之董事須輪值退任，惟各董事須最少每三年於股東週年大會上輪值退任一次。於應屆股東週年大會上，曾之俊先生、程里全先生及陸志芳先生將輪值退任董事，並符合資格且願意在應屆股東週年大會上重選連任為董事。有權於應屆股東週年大會上投票選出董事的本公司股東將選出董事會，董事會須至少由本公司組織章程細則所定最少數目的董事組成，而全體董事將於緊接有關選舉前離任，惟有資格於該大會上獲重選連任。

委任、重選及罷免董事的程序及過程載於本公司的經修訂及重列組織章程大綱及細則。提名委員會負責檢討董事會的組成、監察並就董事(尤其是主席及行政總裁)的委任、重選及繼任計劃向董事會提供推薦意見。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### Board Meetings

The Company adopts the practice of holding board meetings regularly, at least four times a year, and at approximately quarterly intervals. Notices of not less than fourteen days are given for all regular board meetings to provide all Directors with an opportunity to attend and include matters in the agenda for a regular meeting. For other Board and committee meetings, reasonable notice is generally given. The agenda and accompanying board papers are dispatched to the Directors or committee members at least three days before the meetings to ensure that they have sufficient time to review the papers and be adequately prepared for the meetings. When directors or committee members are unable to attend a meeting, they will be advised of the matters to be discussed and given an opportunity to make their views known to the Chairman prior to the meeting. Minutes of meetings are kept by the joint company secretaries of the Company with copies circulated to all Directors for information and records.

Minutes of the board meetings and committee meetings are recorded in sufficient detail the matters considered by the Board and the committees and the decisions reached, including any concerns raised by the Directors. Draft minutes of each board meeting and committee meeting are sent to the Directors for comments within a reasonable time after the date on which the meeting is held. The minutes of the board meetings are available for inspection by Directors.

#### 董事會會議

本公司採納定期舉行董事會會議的慣例，即每年至少舉行四次會議及大致按季度舉行會議。所有董事會例行會議通知會於至少14日前送呈全體有機會出席會議的董事，並使其可於是次例行會議議程內加載有關事宜。就其他董事會及委員會會議而言，本公司一般會發出合理通知。議程及相關董事會附件將於會議舉行前至少3日寄發予董事或委員會成員，以確保彼等有充足時間審閱有關文件及為會議作充分準備。倘董事或委員會成員未能出席會議，則彼等會獲告知將予討論的事宜及於會議舉行前有機會讓主席獲悉彼等之意見。會議記錄會由本公司的聯席公司秘書保存，而副本將於全體董事間傳閱，以供參考及記錄。

董事會會議及委員會會議的記錄會充分詳盡記錄董事會及委員會所審議的事宜及所達致的決定，包括董事提出的任何疑慮。各董事會會議及委員會會議的記錄草擬本將於會議舉行當日後的合理時間內寄送至各董事，以供彼等發表意見。董事會會議的記錄可供董事公開查閱。

**Corporate Governance Report (Continued)****企業管治報告(續)**

For the year ended 31 December 2022, four board meetings were held and the details are set out in the table below:

截至2022年12月31日止年度，董事會曾舉行四次董事會會議，具體情況如下：

<b>Directors</b>	<b>Attendance/number of meetings held</b>
<b>董事</b>	<b>已出席次數/ 舉行會議次數</b>
Mr. Zeng Zhijun 曾之俊先生	4/4
Mr. Cheng Liquan Richard 程里全先生	4/4
Mr. Zheng Tony Tuo 鄭拓先生	4/4
Mr. Zhu Weihang 朱偉航先生	4/4
Mr. Chen Xue 陳學先生	4/4
Mr. Liu Genyu 劉根鈺先生	4/4
Dr. Xie Guozhong 謝國忠博士	4/4
Mr. Lu Zhifang 陸志芳先生	4/4

Apart from formal meetings, other matters subject to the approval of the Board were handled in the form of written resolutions.

除正式會議外，其他須董事會批准的事宜以傳閱書面決議案方式處理。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### Delegation by the Board

The Board reserves its decision for all major matters of the Company, including: approval and monitoring of all policy matters, overall strategies and budgets, internal control and risk management systems, material transactions (in particular those that may involve conflict of interests), financial information, appointment of Directors and other significant financial and operational matters. Directors could have recourse to seek independent professional advice in performing their duties at the Company's expense and are encouraged to consult with the Company's senior management independently.

The daily management, administration and operation of the Group are delegated to the senior management. The delegated functions and responsibilities are periodically reviewed by the Board. Approval has to be obtained from the Board prior to any significant transactions entered into by the management.

#### CORPORATE GOVERNANCE FUNCTION

The Board is responsible for performing the functions set out in the code provision A.2.1 of the CG Code. The Board recognizes that corporate governance should be the collective responsibility of the Directors which includes:

- (a) to develop and review the Company's policies and practices on corporate governance and make recommendations to the Board;
- (b) to review and monitor the training and continuous professional development of Directors and senior management;

#### 董事會的授權

董事會對本公司所有重大事宜保留決策權，包括：批准及監督一切政策事宜、整體策略及預算、內部監控及風險管理制度、重大交易（特別是可能牽涉利益衝突的交易）、財務數據、委任董事及其他主要財務及營運事宜。董事於履行彼等職責時可尋求獨立專業意見，費用由本公司承擔，且本公司亦鼓勵董事向本公司高級管理層進行獨立諮詢。

本集團的日常管理、行政及營運授權予高級管理層負責。授權職能及職責由董事會定期檢討。管理層訂立任何重大交易前須取得董事會批准。

#### 企業管治職能

董事會負責履行企業管治守則的守則條文第A.2.1條所載的職能。董事會承認企業管治乃全體董事的責任，其中包括：

- (a) 制定及檢討本公司的企業管治政策及常規，並向董事會提出建議；
- (b) 檢討及監察董事及高級管理人員之培訓及持續專業發展；



## Corporate Governance Report (Continued)

### 企業管治報告(續)

- |                                                                                                                                  |                                   |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| (c) to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;             | (c) 檢討及監察發行人在遵守法律及監管規定方面的政策及常規；   |
| (d) to develop, review and monitor the code of conduct and compliance manual (if any) applicable to employees and Directors; and | (d) 制定、檢討及監察僱員及董事的操守準則及合規手冊(如有)；及 |
| (e) to review the Company's compliance with the code and disclosure in the Corporate Governance Report.                          | (e) 檢討發行人遵守企業管治守則的情況及在企業管治報告內的披露。 |

The Company complied with the functions set out in the code provision of A.2.1 of the CG Code for the year ended 31 December 2022.

本公司於截至2022年12月31日止年度已遵守企業管治守則的守則條文第A.2.1條所載的職能。

### BOARD COMMITTEES

The Board has established three Board committees to strengthen its functions and corporate governance practices, namely, the Audit Committee, the Nomination Committee and the Remuneration Committee. The Audit Committee, the Nomination Committee and the Remuneration Committee perform their specific roles in accordance with their respective written terms of reference.

The Board committees are provided with sufficient resources to discharge their duties and, upon reasonable request, are able to seek independent professional advice in appropriate circumstances, at the Company's expense.

### 董事委員會

董事會已成立三個董事會委員會，以加強其職能及企業管治常規，分別為審核委員會、提名委員會及薪酬委員會。審核委員會、提名委員會及薪酬委員會均按照其各自之書面職權範圍履行彼等之特定角色。

董事委員會獲提供充足資源以履行其職責，並可在適當情況時提出合理要求下能夠尋求獨立專業意見，有關費用由本公司承擔。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### Audit Committee

The Audit Committee comprises three members, namely Dr. Xie Guozhong (chairman), Mr. Liu Genyu and Mr. Zheng Tony Tuo, all of them are non-executive Directors and the majority are independent non-executive Directors. The primary duties of the Audit Committee include examining independently the financial positions of the Company, overseeing the Company's financial reporting system, risk management and internal control system, the audit process and proposals of internal management, communicating independently with, monitoring and verifying the work of internal audit and external auditors.

For the year ended 31 December 2022, three meetings of the Audit Committee was held and the details are as follows:

#### 審核委員會

審核委員由三名成員組成，即謝國忠博士(主席)、劉根鈺先生及鄭拓先生，全部成員均為非執行董事及大部分成員為獨立非執行董事。審核委員會的主要職責包括獨立審查本公司的財務狀況、監察本公司的財務報告系統、風險管理及內部監控系統、審計過程及內部管理建議、與內部審計核數師及外聘核數師獨立溝通，並監督及核實彼等的工作。

截至2022年12月31日止年度，審核委員會曾舉行三次會議，具體情況如下：

<b>Directors</b>	<b>Attendance/number of meetings held</b>
<b>董事</b>	<b>已出席次數/ 舉行會議次數</b>
Dr. Xie Guozhong (Chairman) 謝國忠博士(主席)	3/3
Mr. Liu Genyu 劉根鈺先生	3/3
Mr. Zheng Tony Tuo 鄭拓先生	3/3

## Corporate Governance Report (Continued)

### 企業管治報告(續)

The Audit Committee reviewed the financial reporting system, compliance procedures, internal control (including the adequacy of resources, staff qualifications and experience, training programmes and budget of the Company's accounting and financial reporting function), risk management systems and processes and the re-appointment of the external auditor and fulfilled the aforementioned duties as required. The Board had not deviated from any recommendation given by the Audit Committee on the selection, appointment, resignation or dismissal of external auditor.

They also reviewed annual results of the Company and its subsidiaries for the fiscal year as well as the audit report prepared by the external auditor relating to accounting issues and major findings in course of audit. There are proper arrangements for employees, in confidence, to raise concerns about possible improprieties in financial reporting, internal control and other matters. The written terms of reference of the Audit Committee are available on the websites of the Company and the Stock Exchange.

#### Nomination Committee

The Nomination Committee currently comprises three members, namely Mr. Zeng Zhijun (chairman), Dr. Xie Guozhong and Mr. Lu Zhifang, the majority of them are independent non-executive Directors.

The primary duties of the Nomination Committee are 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 Board members and select or make recommendations to the Board on the selection of, individuals nominated for directorships, to make recommendation to the Board regarding candidates to fill vacancies on the Board and/or in the management (in particular the chairman and the chief executive), and to assess the independence of the independent non-executive Directors.

審核委員會檢討財務申報制度、合規程序、內部監控(包括本公司在會計及財務申報職能方面的資源、員工資歷及經驗是否足夠,以及培訓課程及預算是否充足)、風險管理制度及程序以及外聘核數師的續聘及履行上述規定的職責。董事會並無偏離審核委員會就挑選、委任、辭退或罷免外聘核數師所提供的任何建議。

彼等亦審閱本公司及其附屬公司於財政年度的年度業績以及由外聘核數師所編製有關審計過程中的會計事項及重大發現的審計報告。該委員會為僱員作出適當安排,讓彼等可以保密方式就財務申報、內部監控及其他事宜可能出現的不當行為提出疑問。審核委員會的書面職權範圍可於本公司及聯交所網站查閱。

#### 提名委員會

提名委員會目前由三名成員組成,即曾之俊先生(主席)、謝國忠博士及陸志芳先生,大部份成員均為獨立非執行董事。

提名委員會的主要職責為至少每年檢討董事會的架構、規模及組成,並就董事會為配合本公司的企業策略所作出的任何建議變動提供建議、物色具適當資歷的人選擔任董事會成員和向董事會作出有關甄選可提名為董事的個別人士向董事會作出建議、就填補董事會及/或管理層(尤其主席及行政總裁)空缺的人選向董事會提供建議,並評估獨立非執行董事的獨立性。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

The Nomination Committee will assess the candidate or incumbent on criteria such as integrity, experience, skill and ability to commit time and effort to carry out the duties and responsibilities. The recommendations of the Nomination Committee will then be put to the Board for decision. Their written terms of reference are available on the websites of the Stock Exchange and the Company.

提名委員會將按標準評估候選人或現任人，如誠信、經驗、技能及投入時間和精力以履行職責及責任的能力。提名委員會的推薦建議隨後將提呈予董事會作出決定。書面職權範圍可於聯交所及本公司網站查閱。

For the year ended 31 December 2022, the meeting of the Nomination Committee was held on 25 March 2022 to review and approve the Group's Board diversity policy; review and evaluate the independence of the Group's independent non-executive Directors; review and approve the re-election of relevant Directors at the annual general meeting. The details of their attendance are as follows:

截至2022年12月31日止，提名委員會於2022年3月25日舉行會議，審議並批准有關本集團董事會多元化政策；審核並評估本集團獨立非執行董事的獨立性；審議並批准相關董事在股東週年大會上重選連任。其出席詳情如下：

<b>Directors</b>	<b>Attendance/number of meetings held</b>
<b>董事</b>	<b>已出席次數/ 舉行會議次數</b>
Mr. Zeng Zhijun (Chairman) 曾之俊先生(主席)	1/1
Dr. Xie Guozhong 謝國忠博士	1/1
Mr. Lu Zhifang 陸志芳先生	1/1

The Nomination Committee assessed the independence of independent non-executive Directors, considered the re-appointment of the retiring Directors, reviewed the time commitment required from the non-executive Director and fulfilled duties as required aforesaid.

提名董事會評估獨立非執行董事的獨立性、審議退任董事的重選事宜，以及檢討擔任非執行董事所需投入的時間並履行上述規定的職責。





## Corporate Governance Report (Continued)

### 企業管治報告(續)

The Board has adopted a Board diversity policy (the “Policy”) in accordance with the requirements of the Listing Rules with effect from 29 March 2018 which sets out the approach to achieve diversity on the Board. All Board appointments shall be based on meritocracy, and candidates will be considered against selection criteria, having regard for the benefits of diversity on the Board. Selection of candidates will be based on range of diversity perspectives, which would include but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. The ultimate decision will be based on merit and contribution that the selected candidates will bring to the Board. The Nomination Committee will monitor the implementation of the Policy and will from time to time review the Policy, as appropriate, to ensure the effectiveness of the Policy.

#### Remuneration Committee

The Remuneration Committee comprises three members, namely Mr. Lu Zhifang (chairman), Mr. Zeng Zhijun and Mr. Liu Genyu, the majority of them are independent non-executive Directors.

The primary duties of the Remuneration Committee are to recommend the Board on the Group’s remuneration policy and structure for the Directors and senior management remuneration and on the establishment of a formal and transparent procedure for developing remuneration policy, to assess performance of executive Directors, to review and approve the management’s remuneration proposals with reference to the Board’s corporate goals and objectives, and to make recommendations to the Board on the remuneration packages of the executive Directors and senior management.

The written terms of reference of the Remuneration Committee are available on the websites of the Stock Exchange and the Company.

董事會已按照上市規則之規定於2018年3月29日採納董事會成員多元化政策(「該政策」)，當中載列董事會為達致其成員多元化而採取之方針。董事會成員之委任均以用人唯才為原則，並在考慮人選時以充分顧及董事會成員多元化之裨益為甄選準則。甄選人選將按一系列多元化範疇為基準，包括但不限於性別、年齡、文化及教育背景、種族、專業經驗、技能、知識及服務任期。最終將按人選的長處及可為董事會提供之貢獻而作決定。提名委員會將監察該政策的執行，並將不時在適當時候檢討該政策，以確保該政策行之有效。

#### 薪酬委員會

薪酬委員會由三名成員組成，即陸志芳先生(主席)、曾之俊先生及劉根鈺先生，大部份成員為獨立非執行董事。

薪酬委員會的主要職責為就本集團董事及高級管理層薪酬的薪酬政策及架構向董事會提供建議，並就制定薪酬政策設立正式及透明的程序、評估執行董事的表現，且參照董事會的企業目標及宗旨檢討及批准管理層薪酬建議，以及就執行董事及高級管理層的薪酬待遇向董事會提供建議。

薪酬委員會的書面職權範圍可於聯交所及本公司網站查閱。

## Corporate Governance Report (Continued)

## 企業管治報告(續)

For the year ended 31 December 2022, the meetings of the Remuneration Committee was held on 25 March 2022 to review and approve the remuneration of the Directors and senior management of the Group. The details of the attendance are as follows:

截至2022年12月31日止年度，薪酬委員會於2022年3月25日舉行會議，審議並批准有關本集團董事及高級管理層的薪酬。其出席詳情如下：

<b>Directors</b>	<b>Attendance/number of meetings held</b>
<b>董事</b>	<b>已出席次數／舉行會議次數</b>
Mr. Zeng Zhijun 曾之俊先生	1/1
Mr. Lu Zhifang (Chairman) 陸志芳先生(主席)	1/1
Mr. Liu Genyu 劉根鈺先生	1/1

The Remuneration Committee discussed and reviewed the remuneration policy for Directors and senior management of the Company, made recommendations to the Board on the remuneration packages of individual executive Directors and senior management and fulfilled duties as required aforesaid.

薪酬委員會討論及檢討本公司董事及高級管理層的薪酬政策，以及就個別執行董事及高級管理層的薪酬待遇向董事會提供建議並履行上述規定的職責。

The remuneration by band of the members of senior management of the Company, whose biographies are set out in the section headed “Directors and Senior Management” in this annual report, for the year ended 31 December 2022 range from RMB520,000 to RMB840,000.

截至2022年12月31日止年度，本公司高級管理層成員（其履歷載於本年報「董事及高級管理層」一節）按組別劃分的薪酬介乎人民幣520,000元至人民幣840,000元之間。

## DIRECTORS' RESPONSIBILITIES FOR FINANCIAL REPORTING IN RESPECT OF FINANCIAL STATEMENTS

### 董事有關財務報表的財務申報責任

The Directors acknowledge their responsibility for preparing the financial statements for the 2022 Financial Year which give a true and fair view of the affairs of the Company and the Group and of the Group's results and cash flows.

董事已知悉，彼等有責任編製2022財政年度的財務報表，以真實公平地反映本公司及本集團的事務狀況以及本集團的業績及現金流量。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

The management has provided to the Board such explanation and information as are necessary to enable the Board to carry out an informed assessment of the Company's financial statements, which are put to the Board for approval. The Company provides all members of the Board with monthly updates on Company's performance, positions and prospects.

The Directors were not aware of any material uncertainties relating to events or conditions which may cast significant doubt upon the Group's ability to continue as a going concern.

The statement by the auditors of the Company regarding their reporting responsibilities on the financial statements of the Company is set out in the Independent Auditor's Report on page 209 to page 216 of this annual report.

### INTERNAL CONTROL AND RISK MANAGEMENT

The Board is responsible for maintaining an adequate risk management and internal control systems to safeguard Shareholders' investments and Company's assets and with the support of the Audit Committee, reviewing the effectiveness of such systems on an annual basis. The Company has implemented various internal control and risk management policies, including Asset Depreciation Provision Management Policy, Inventory Management Policy and Financing and Guarantee Management Policy. Furthermore, we also sponsor our internal control staff to attend risk management and internal control related trainings every year. The risk management and internal control policies are designed to help achieve business objectives, safeguarding assets against unauthorised use, and maintaining proper accounting records for the provision of reliable financial information for internal use and for publication. The establishment of risk management and internal control systems is to provide reasonable, but not absolute, assurance against material misstatement of financial statements or loss of assets and to manage rather than eliminate risks of failure in operational systems and achievement of the Group's objectives.

管理層向董事會提供必要的闡釋及數據，致使董事會能對提呈予董事會批准的本公司財務報表進行知情的評估。本公司每月向董事會全體成員提供有關本公司表現、狀況及前景的最新資料。

董事並不知悉，任何有關可能對本公司持續經營能力嚴重存疑的事件或情況的重大不確定因素。

本公司核數師就彼等對本公司財務報表申報責任的聲明載於本年報第209至216頁的獨立核數師報告內。

### 內部監控及風險管理

董事會負責維持充分的風險管理及內部監控系統，以保障股東投資及本公司的資產，並在審核委員會的支持下，每年檢討有關系統的效能。本公司已落實多項內部控制及風險管理政策，其中包括資產折舊撥備管理政策、存貨管理政策及融資擔保管理政策。此外，我們每年亦組織內部控制員工參加風險管理和內部控制相關培訓。風險管理及內部監控系統已予制訂，以助達成業務目標、保障資產免受到未經授權的使用及存置恰當會計紀錄，以提供可靠的財務數據作內部及刊發之用。設立內部控制及風險管理政策防止財務報表之重大失實聲明或資產損失，及管理（而非消除）營運系統失效及未能達成本集團業務目標的風險。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

The Company's operation planning department is responsible for the internal control and risk management of the Company's business operations. The internal audit department is responsible for the internal audit of the Company. The Company has also engaged external consultants to perform a review of the internal control and risk management systems of the Group. With the assistance of the external consultants, the operation planning department, the internal control department and the internal audit department of the Company, the Company is able to take mitigating and remedial measures to address the identified risks and such actions and measures are integrated in the day-to-day activities of the Group and their effectiveness is closely monitored. The internal audit, internal control and risk management systems and policies are reviewed by the Board on an ongoing basis in order to make it practical and effective in providing reasonable assurance in relation to the identification of business risks.

The Company has put in place a policy on handling and dissemination of inside information which sets out the procedures and internal controls for handling and dissemination of inside information in a timely manner in such a way to avoid placing any person in a privileged dealing position. The inside information policy also provides guidelines to employees of the Group to ensure proper safeguards exist to prevent the Company from breaching the statutory and listing rule disclosure requirements. The Company has appropriate internal control and reporting systems to identify and assess potential inside information. Dissemination of inside information of the Company shall be conducted by publishing the relevant information on the websites of the Stock Exchange and the Company, according to the requirements of the Listing Rules.

本公司的經營計劃部負責本公司業務營運中的內部控制及風險管理。內部審計部負責本公司的內部審計。本公司亦已聘請外部顧問對本集團的內部監控及風險管理系統進行檢討。在外部顧問、本公司經營計劃部、內部監控部及內部審計部的協助下，本公司能夠採取緩解及補救措施處理已識別的風險。該等行動及措施乃整合於本集團的日常活動中，而其效用受密切監察。董事會持續檢討內部審計、內部監控及風險管理系統，使其有效可行並對識別業務風險提供合理保證。

本公司已訂立一項處理及發佈內幕消息的政策，列出處理及發佈內幕消息的程序及內部監控，使內幕消息得以適時處理及發佈，而不會導致任何人士在證券交易上處於佔優的地位。內幕消息政策亦為本集團僱員提供指引，確保設有適當的措施，以預防本公司違反法定及上市規則的披露規定。本公司設有適當的內部監控及彙報制度，識別及評估潛在的內幕消息。根據上市規則的規定，本公司發佈內幕消息，會透過聯交所及本公司網站刊登相關消息。



## Corporate Governance Report (Continued)

### 企業管治報告(續)

The Audit Committee assists the Board in the review, which covers operational, financial and compliance controls, internal audit and risk management functions, to maintain an adequate and effective internal control system to safeguard the interests of the shareholders and the assets of the Group. For the 2022 Financial Year, the Board conducted an annual review of the effectiveness of the internal control system of the Group by, including but not limited to, considering a written report prepared by the external consultants to the Audit Committee covering the above aspects. The Board has also considered the adequacy of resources, qualifications and experience of staff of the Company's accounting and financial reporting function, and their training programme and budget during the year under review. The Board is not aware of any significant internal control and risk management weaknesses nor significant breach of limits or risk management policies, and considers that the current monitoring systems of the Company are effective and that the qualifications and experience of the staff, performing accounting and financial reporting functions and the training programmes of the Company as well as the experiences and resources for setting the budget of the Company are adequate. The Company has complied with the requirements under D.2.1 to D.2.5 and D.2.3 of the CG Code relating to risk management and internal control since the Listing Date.

### AUDITOR'S REMUNERATION

Ernst & Young were appointed as the Company's auditors to audit the financial statements of the Company for the year ended 31 December 2022 prepared in accordance with IFRSs. During the Reporting Period, the fees paid to Ernst & Young for audit services amounted to RMB3,370,000.

審核委員會亦協助董事會進行有關維持足夠及有效之內部監控系統的審閱，當中涵蓋營運、財務及合規監控內部審計、以及風險管理功能，以保障股東及本集團資產之利益。於2022年財政年度，董事會已透過(其中包括但不限於)考慮外部顧問向審核委員會編製之書面報告對本集團內部監控系統之成效進行年度檢討，範圍涵蓋上述各方面。於回顧年度，董事會亦已考慮本公司在會計及財務報告職能方面之資源、員工資歷及經驗是否足夠，以及員工所接受之培訓課程及有關預算是否充足。董事會並未發現任何重大內部監控及風險管理缺陷，亦未發現重大違反限制或風險管理政策之情況，並認為本公司目前的監控系統有效，且本公司員工的資歷和經驗、會計及財務呈報職能的履行，以及本公司的培訓課程及本公司有關預算方面的經驗和資源足夠。本公司自上市日期起已遵守企業管治守則第D.2.1條至D.2.5條及第D.2.3條有關風險管理及內部監控之規定。

### 核數師酬金

安永會計師事務所獲委任為本公司核數師，審計本公司截至2022年12月31日止年度按照國際財務報告準則編製的財務報表。於報告期內，就審計服務向安永會計師事務所支付的費用為人民幣3,370,000元。

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### JOINT COMPANY SECRETARIES AND PRIMARY CONTACT

Ms. Qian Xiaoning was appointed as the joint company secretary of the Company on 13 February 2017. Ms. Qian's biographical details are set out in the section headed "Directors and Senior Management" in this annual report.

As confirmed by the Stock Exchange in March 2021, Ms. Qian Xiaoning is qualified to act as the company secretary of the Company under Rule 3.28 of the Listing Rules after the expiry of the waiver period on 15 March 2021. According to the arrangement, Ms. Qian Xiaoning continues to be the joint company secretary of the Company, together with Ms. Wong Wai Ling, who is the vice president of SWCS Corporate Services Group (Hong Kong) Limited (a company secretarial service provider). Ms. Wong Wai Ling's primary contact person in the Company is Ms. Qian Xiaoning.

Ms. Qian Xiaoning and Ms. Wong Wai Ling have undertaken not less than 15 hours of relevant professional training in compliance with Rule 3.29 of the Listing Rules for the year ending 31 December 2022.

#### GENERAL MEETING

The AGM of the Company will be held on 31 May 2023.

#### 聯席公司秘書及主要聯絡人

於2017年2月13日，錢曉寧女士獲委任為本公司的聯席公司秘書。錢女士的履歷詳情載於本年報「董事及高級管理層」一節。

按聯交所於2021年3月確認，在豁免期於2021年3月15日屆滿後，錢曉寧女士符合上市規則第3.28條所規定擔任本公司的公司秘書之資格。根據有關安排，錢曉寧女士繼續連同黃慧玲女士擔任本公司的聯席公司秘書，而黃慧玲女士現為方圓企業服務集團(香港)有限公司(一間公司秘書服務供應商)的總監。黃慧玲女士於本公司的主要聯絡人為錢曉寧女士。

截至2022年12月31日止年度，錢曉寧女士及黃慧玲女士已參與不少於15小時的相關專業培訓，以遵守上市規則第3.29條的規定。

#### 股東大會

本集團股東週年大會將於2023年5月31日舉行。



**Corporate Governance Report (Continued)****企業管治報告(續)**

During the Reporting Period, the Group has held 1 general meetings on 31 May 2022. The details of the Directors' attendance are as follows:

本報告期內，本集團共舉行1次股東大會，於2022年5月31日舉行，董事出席股東大會情況如下：

<b>Directors</b>	<b>Attendance/number of meetings held</b>
<b>董事</b>	<b>已出席次數/ 舉行會議次數</b>
Mr. Zeng Zhijun 曾之俊先生	1/1
Mr. Cheng Liquan Richard 程里全先生	0/1
Mr. Zheng Tony Tuo 鄭拓先生	0/1
Mr. Zhu Weihang 朱偉航先生	0/1
Mr. Chen Xue 陳學先生	0/1
Mr. Liu Genyu 劉根鈺先生	0/1
Dr. Xie Guozhong 謝國忠博士	1/1
Mr. Lu Zhifang 陸志芳先生	1/1

## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### COMMUNICATION WITH SHAREHOLDERS AND INVESTOR RELATIONS

#### 與股東的溝通及投資者關係

The Company considers that effective communication with the Shareholders is essential for enhancing investor relations and understanding of the Group's business, performance and strategies. The Company also recognizes the importance of timely and non-selective disclosure of information, which will enable Shareholders and investors to make the informed investment decisions.

本公司認為，與股東的有效溝通對加強投資者關係及瞭解本集團的業務、表現及策略攸關重要。本公司亦深知及時與非選擇性地披露資料以供股東及投資者作出知情投資決策的重要性。

The AGM of the Company provides opportunity for the Shareholders to communicate directly with the Directors. The Chairman of the Company and the chairmen of the Board Committees of the Company will attend the AGM to answer Shareholders' questions. The chairman of a meeting will provide the detailed procedures for conducting a poll and answer any questions from the Shareholders on voting by poll. The external auditors of the Company will also attend the AGM to answer questions about the conduct of the audit, the preparation and content of the auditor's report, the accounting policies and auditor independence.

本公司股東週年大會為股東提供與董事直接溝通的機會。本公司主席及本公司各董事委員會主席將出席股東週年大會解答股東提問。大會主席將提供進行投票的詳細程序，並解答股東有關投票表決的任何問題。本公司的外聘核數師亦將出席股東週年大會，以解答有關審計操守、核數師報告的編製及內容、會計政策及核數師獨立性的問題。

To promote effective communication, the Company adopts a shareholders' communication policy which aims at establishing a two-way relationship and communication between the Company and its shareholders and maintains a website at <http://www.chinaboqi.com>, where up-to-date information on the Company's business operations and developments, financial information, corporate governance practices and other information are available for public access. During the Reporting Period, the Company performed its statutory obligations in respect of information disclosures and complied with and implemented the provisions of the Listing Rules, as well as its shareholders' communication policy. In 2023, the Company will focus more on the demands of investors and analysts, pay close attention to important policies of the environmental protection and energy conservation industry and allow timely access by the public to sufficient business information and recent developments of the Company.

為促進有效的溝通，本公司採納股東通訊政策，旨在建立本公司與其股東的相互關係及溝通，並設有網站(<http://www.chinaboqi.com>)，刊登有關其業務營運及發展的最新數據、財務數據、企業管治常規及其他數據，以供公眾人士查閱。於報告期內，公司已履行信息披露的法定義務，並遵守和執行了上市規則的規定以及股東通訊政策。於2023年，本公司將更集中於投資者及分析師需求，密切關注環保及節能產業的重要政策，及時作出公開披露數據，讓公眾能夠及時取得完整的業務資料並瞭解公司近期發展狀況。

The Board has regularly reviewed its shareholder communications policy and ensured that it is effectively implemented.

董事會已定期審查其股東通訊政策並確保其有效實施。



## Corporate Governance Report (Continued)

### 企業管治報告(續)

#### SHAREHOLDERS' RIGHTS

To safeguard the Shareholders' interests and rights, a separate resolution will be proposed for each issue at general meetings, including the election of individual directors.

All resolutions put forward at general meetings will be voted by poll pursuant to the Listing Rules and poll results will be posted on the websites of the Company and the Stock Exchange in a timely manner after each general meeting.

#### Procedures for shareholders to convene an extraordinary general meeting

According to Article 12.3 of the Articles of Association, general meetings can be convened on the written requisition of any two 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 which carries the right of voting at general meetings of the Company deposited at the principal office of the Company in Hong Kong. If the Board does not within 21 days from the date of deposit of the requisition proceed duly to convene the meeting to be held within a further 21 days, the requisitionist(s) themselves or any of them representing more than one-half of the total voting rights of all of them, may convene the general meeting in the same manner, as nearly as possible, as that in which meetings may be convened by the Board provided that any meeting so convened shall not be held after the expiration of three months from the date of deposit of the requisition, and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to them by the Company.

#### Procedures for Shareholders to Propose a Person for Election as a Director

If a shareholder of the Company wishes to propose a person other than a Director for election as a Director at the Company's general meeting ("Proposal"), he/she should lodge a written notice setting out the Proposal and his/her contact details at the principal place of business of the Company or the Company's branch share registrar in Hong Kong, Tricor Investor Services Limited. The Proposal should include the biographical details of the proposed Director and a written notice signed by the proposed Director confirming his/her willingness to be elected, the accuracy and completeness of his/her biographical details.

#### 股東權利

為保障股東的利益及權利，本公司會於股東大會上就各項議題(包括選舉個別董事)提呈獨立決議案。

於股東大會上提呈的所有決議案將根據上市規則以投票方式進行表決，投票結果將於各股東大會舉行後及時於本公司及聯交所網站刊登。

#### 股東召開股東特別大會的程序

根據組織章程細則第12.3條，股東大會須於任何兩名或以上於存放請求書於本公司香港主要辦事處當日持有不少於有權於本公司股東大會上投票的本公司繳足股本十分之一的股東要求時召開。倘董事會並未於提交要求當日起計21日內正式召開將於額外21日內舉行之會議，要求者本身或當中代表彼等所享有全部投票權過半數之任何人士，可按相同方式(盡可能接近董事會可召開會議之方式)召開股東大會，前提為如此召開之任何會議不得在提交要求當日起計三個月屆滿後舉行，而所有因董事會未能履行要求而令要求者產生之合理費用須由本公司向要求者作出補償。

#### 股東提名人選參選董事的程序

倘本公司股東有意於本公司股東大會上提名董事以外的人士參選董事(「議案」)，則應向本公司香港主要營業地點或本公司香港股份過戶登記分處卓佳證券登記有限公司遞交書面通知，載列議案及其聯絡詳情。議案應包括建議董事的履歷詳情及建議董事簽署的書面通知，確認其選舉意願、履歷詳情的準確性及完整程度。

## Corporate Governance Report (Continued)

### 企業管治報告 (續)

#### Shareholders' inquiries

If you have any query in connection with your shareholdings, please write to or contact the Company's Hong Kong share registrar, Tricor Investor Services Limited, at: 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong Tel: (852) 2980 1066 Fax: (852) 2262 7584 Website: www.tricorglobal.com.

#### Investor relations and communications

The Company has set up a website at www.chinaboqi.com as a channel to promote communication, publishing announcements, financial information and other relevant information of the Company. Shareholders are welcome to make enquiries directly to the Company at its principal place of business in Hong Kong. The Company will deal with all enquiries in a timely and appropriate manner. The primary contacts of the Company are Ms. Zhu Beibei and Ms. Wang Siyu at (email: irhk@chinaboqi.com or tel: +86 10 59579665/+86 10 58782059).

#### CHANGE IN CONSTITUTIONAL DOCUMENTS

The memorandum and articles of association of the Company have been amended and restated with effect from the Listing Date.

For the year ended 31 December 2022, no change had been made to the memorandum and articles of association of the Company.

The Board proposes to amend and restate the articles of association of the Company, in order to conform the Amended Articles of Association with core shareholder protection standards set out in Appendix 3 of the Listing Rules which took effect on 1 January 2022, and to make some house-keeping amendments. The proposed adoption of the amended articles of association is subject to the approval of the Shareholders by way of a special resolution at the forthcoming AGM which will be held on 31 May 2023. For further details, please refer to the Company's announcement dated 24 March 2023 and circular dated 26 April 2023.

#### 股東查詢

如閣下對所持股份有任何查詢事項，請致函或聯絡本公司香港股份登記處卓佳證券登記有限公司，地址為：香港夏慤道16號遠東金融中心17樓，電話：(852) 2980 1066，傳真：(852) 2262 7584，網站：www.tricorglobal.com。

#### 投資者關係及通訊

作為促進有效溝通的溝通，本公司設立網站 www.chinaboqi.com 刊發本公司的公告、財務數據及其他相關數據。股東如有任何查詢，可直接致函至本公司於香港的主要營業地點。本公司將及時以適當方式處理所有查詢。本公司的主要聯絡人為朱蓓蓓女士及王思雨女士（電郵：irhk@chinaboqi.com 或電話：+86 10 59579665/+86 10 58782059）。

#### 更改憲章文件

本公司的組織章程大綱及細則已予修訂並重述，有關修訂及重述自上市日期起生效。

截至2022年12月31日止年度，本公司的組織章程大綱及細則並無變動。

董事會建議修訂及重述本公司的組織章程細則，以令經修訂組織章程細則符合自2022年1月1日起生效的上市規則附錄三所載核心股東保障水平，並作出若干內務修訂。建議採納經修訂組織章程細則須待股東在2023年5月31日舉行的應屆股東週年大會上以特別決議案批准。有關詳情，請參閱本公司日期為2023年3月24日的公告及日期為2023年4月26日的通函。



## Directors' Report

### 董事會報告

The Board is pleased to present its report together with the audited consolidated financial statements of the Group for the year ended 31 December 2022.

#### CORPORATE INFORMATION

Basic information about the Company is set out in the sections headed "Corporate Information" and "Company Profile" in this annual report.

#### GLOBAL OFFERING

The Company was incorporated in the Cayman Islands as an exempted company with limited liability on 30 January 2015. The Company's issued shares (the "**Shares**") were listed on the Stock Exchange on 16 March 2018.

#### PRINCIPAL ACTIVITIES

The Company is an investment holding company. The principal activities of the Group are providing independent flue gas treatment service and environmental protection solution service by various business models, including environmental protection facility engineering, operation and maintenance and concession operation.

The activities and particulars of the Company's subsidiaries are shown under note 1 to the consolidated financial statements. An analysis of the Group's revenue and operating profit for the year by principal activities is set out in the section headed "Management Discussion and Analysis" in this annual report and note 5 to the consolidated financial statements.

董事會欣然提呈截至2022年12月31日止年度之董事會報告及本集團經審核綜合財務報表。

#### 公司資料

本公司的基本資料載列於本年報「公司資料」及「公司簡介」章節中。

#### 全球發售

本公司於2015年1月30日於開曼群島註冊成立為獲豁免有限公司。本公司的已發行股份(「股份」)於2018年3月16日在聯交所上市。

#### 主要業務

本公司為一家投資控股公司。本集團的主要業務為通過各種不同業務模式提供獨立的煙氣處理服務和環保解決方案，包括環保設施工程、運營與維護以及特許經營。

本公司附屬公司的活動及詳情載於綜合財務報表附註1。本集團年內營業額及經營利潤按主要業務劃分之分析載於本年報「管理層討論與分析」一節及綜合財務報表附註5。

## Directors' Report (Continued)

### 董事會報告(續)

#### BUSINESS REVIEW

A review of the Group's business during the year, which includes a discussion of the principal risks and uncertainties facing by the Group, an analysis of the Group's performance using financial key performance indicators, particulars of important events affecting the Group during the year, and an indication of likely future developments in the Group's business, could be found in the sections headed "Chairman's Statement" and "Management Discussion and Analysis" in this annual report. The financial risk management objectives and policies of the Group can also be found in note 46 to the consolidated financial statements. In addition, a discussion on relationships with its key stakeholders is included in the section headed "Management Discussion and Analysis" in this annual report. The review forms part of this directors' report.

#### RESULTS

The consolidated results of the Group for the year ended 31 December 2022 are set out on page 217 to page 226 of this annual report.

#### DIVIDEND POLICY

According to the dividend policy that resolved to adopt by the Board (the "**Dividend Policy**") on 18 May 2018, the Company may declare and distribute dividends to the shareholders of the Company, provided that the Group records a profit and that the declaration and distribution of dividends does not affect the Group's normal operations.

According to the Dividend Policy, the Company takes priority to distributing dividends in cash and shares its profits with the Shareholders. It is expected that the amount of dividends distributed will be in the range of 30% to 50% of the Group's net profit for the current year, subject to the following requirements. The remaining profit will be used for the development and operation of the Group.

The Company's ability to distribute dividends will depend on, among others, the operating results, cash flow, financial condition and capital requirements of the Group and the interests of the Shareholders of the Company. The Company's distribution of dividends shall also comply with any restrictions under the Companies Law of the Cayman Islands and the Articles of Association of the Company.

#### 業務回顧

本集團年內業務回顧包括討論本集團面對的主要風險及不明朗因素、採用財務關鍵表現指標分析本集團之表現、年內影響本集團之重大事件詳情以及本集團業務未來發展的揭示，載於本年報「主席報告書」及「管理層討論與分析」章節。本集團的財務風險管理目標及政策亦載於綜合財務報表附註46。此外，就與主要利益相關者之關係之討論載於本年報「管理層討論與分析」章節。該回顧構成本董事會報告之一部分。

#### 業績

本集團截至2022年12月31日止年度的綜合業績載於本年報第217至226頁。

#### 股息政策

根據本公司董事會於2018年5月18日決議及採納的股息政策（「**股息政策**」），倘本集團錄得盈利並宣派及派發股息而不影響本集團的正常營運，則本公司可向本公司股東宣派及派發股息。

根據股息政策，本公司優先考慮以現金方式分派股息，與股東共享其溢利，金額預計達到本集團當年度淨利潤的30%至50%，惟須受下列標準所規限，餘下溢利將供本集團作發展及營運之用。

本公司派發股息的能力將取決於（其中包括）本集團的經營業績、現金流量、財務狀況、資本需求以及本公司的股東權益。本公司派發股息亦受限於開曼群島公司法及本公司章程細則項下的任何限制。

## Directors' Report (Continued)

### 董事會報告(續)

#### FINAL DIVIDENDS

Taking into consideration various factors such as the new business development needs of the Group and its future capital expenditure plans, the Board recommend the payment of HK\$3.00 cents per ordinary share as final dividend for the year ended 31 December 2022 (2021: HK\$7.40 cents). No interim dividend was declared for the 2022 financial year. Subject to the Shareholder's approval at the AGM (as defined below), the proposed final dividend will be paid to the Shareholders on 12 July 2023.

#### FINANCIAL SUMMARY

A summary of the Group's results, assets, liabilities for the last five financial years are set out on page 7 to page 10 of this annual report. This summary does not form part of the audited consolidated financial statements.

#### MAJOR CUSTOMERS AND SUPPLIERS

For the year ended 31 December 2022, the Group's largest customers accounted for 9.8% (2021: 8.5%) of the Group's total revenue. The Group's five largest customers accounted for 38.1% (2021: 35.5%) of the Group's total revenue.

For the year ended 31 December 2022, the Group's largest suppliers accounted for 5.9% (2021: 12.4) of the Group's total cost of procurement. The Group's five largest suppliers accounted for 22.1% (2021: 26.5%) of the Group's total cost of procurement.

Save as disclosed in the prospectus of the Company dated 28 February 2018 (the "Prospectus"), none of the Directors or any of their associates (as defined under Listing Rules) or any Shareholders (which, to the best knowledge of the Directors, owns more than 5% of the Company's issued share capital) has any beneficial interest in the Group's five largest suppliers or the Group's five largest customers.

#### 末期股息

董事會結合集團新業務發展所需及未來資本開支計劃等多重因素，建議宣派截至2022年12月31日止年度之末期股息每股普通股3.00港仙(2021年：7.40港仙)。2022財政年度並無宣派中期股息。待股東在股東週年大會(定義見下文)批准後，擬派末期股息將於2023年7月12日派付予股東。

#### 財務概要

本集團於過去五個財政年度的業績、資產、負債之概要載於本年報第7至10頁。此概要並不構成經審核綜合財務報表的一部分。

#### 主要客戶及供應商

截至2022年12月31日止年度，本集團最大客戶佔本集團總收益的9.8%(2021年：8.5%)。本集團五大客戶佔本集團總收益的38.1%(2021年：35.5%)。

截至2022年12月31日止年度，本集團最大供應商佔本集團總採購成本的5.9%(2021年：12.4%)。本集團五大供應商佔本集團總採購成本的22.1%(2021年：26.5%)。

除本公司日期為2018年2月28日的招股章程(「招股章程」)所披露者外，概無董事或彼等的任何聯繫人(定義見上市規則)或任何股東(其就董事所深知擁有本公司超過5%已發行股本)於本集團五大供應商或本集團五大客戶擁有任何實益權益。

## Directors' Report (Continued)

## 董事會報告(續)

## PROPERTY, PLANT AND EQUIPMENT

Details of movements in the property, plant and equipment of the Company and the Group during the year ended 31 December 2022 are set out in note 13 to the consolidated financial statements.

## SHARE CAPITAL

Details of movements in the share capital of the Company during the year ended 31 December 2022 are set out in note 35 to the consolidated financial statements.

## TAX RELIEF

The Company is not aware of any tax relief available to the Shareholders by reason of their holding in the Company's securities.

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

During the Reporting Period, the Company purchased 56,000 Shares, in aggregate, on the Stock Exchange at a total consideration of HK\$73,920, which were cancelled thereafter.

Details of the purchases are summarized as follows:

Date of buy-back 購回日期		Number of Shares 股份數目	Highest price per share 每股最高價 HK\$ 港元	Lowest price per share 每股最低價 HK\$ 港元	Aggregate consideration 總代價 HK\$ 港元
31 March 2022 (Note)	2022年3月31日(附註)	56,000	1.32	1.32	73,920

Note: Such 56,000 Shares were cancelled on 19 May 2022.

Save for the above, neither the Company nor any member of the Group has purchased, sold or redeemed any of the Company's shares during the Reporting Period.

## 物業、廠房及設備

本公司及本集團於截至2022年12月31日止年度的物業、廠房及設備變動詳情載於綜合財務報表附註13。

## 股本

本公司於截至2022年12月31日止年度的股本變動詳情載於綜合財務報表附註35。

## 稅務寬免

本公司並不知悉股東因持有本公司證券而享有任何稅務寬免。

## 購買、出售或贖回本公司上市證券

於報告期內，本公司於聯交所按總代價73,920港元購回合共56,000股股份，並已於其後註銷。

購回詳情概列如下：

附註：上述56,000股股份已於2022年5月19日註銷。

除上述者外，本公司或本集團任何成員公司概無於報告期內購買、出售或贖回任何本公司股份。

## Directors' Report (Continued)

### 董事會報告(續)

#### PRE-EMPTIVE RIGHTS

As at 31 December 2022, there were no provisions for pre-emptive rights under the Articles of Association, which require the Company to offer new Shares to existing Shareholders in proportion to their shareholdings.

#### RESERVES

Details of movements in the reserves of the Company and the Group during the year ended 31 December 2022 are set out in the summary of the Company's reserves and the consolidated statement of changes in equity on page 412 and page 221 to page 222 respectively.

#### DISTRIBUTABLE RESERVES

As at 31 December 2022, the Group's distributable reserves were RMB1,414,503,000 (as at 31 December 2021: RMB1,341,839,000).

#### BANK LOANS AND OTHER BORROWINGS

Particulars of bank loans and other borrowings of the Group as at 31 December 2022 are set out in note 31 to the consolidated financial statements.

#### LOAN AND GUARANTEE

During the year ended 31 December 2022, the Group had not provide any financial assistance and guarantees to affiliated companies of the Group.

#### 優先購買權

於2022年12月31日，組織章程細則並無就優先購買權作出規定，並無要求本公司按股東的持股比例向現有股東提呈發售新股。

#### 儲備

截至2022年12月31日止年度，本公司及本集團之儲備變動詳情分別載於第412頁的本公司儲備之概要及第221至222頁的綜合權益變動表。

#### 可供分配儲備

於2022年12月31日，本集團之可供分配儲備為人民幣1,414,503,000元(於2021年12月31日：人民幣1,341,839,000元)。

#### 銀行貸款及其他借款

本集團於2022年12月31日的銀行貸款及其他借款的詳情載於綜合財務報表附註31。

#### 貸款及擔保

截至2022年12月31日止年度，本集團概無向本集團的聯屬公司提供任何財務資助及擔保。

## Directors' Report (Continued)

## 董事會報告(續)

## DIRECTORS

The Directors during the year ended 31 December 2022 were:

**Executive Directors**

Mr. Zeng Zhijun (*Chairman*)

Mr. Cheng Liquan Richard (*Note*)

**Non-executive Directors**

Mr. Zheng Tony Tuo

Mr. Zhu Weihang

Mr. Chen Xue

**Independent Non-executive Directors**

Mr. Liu Genyu

Dr. Xie Guozhong

Mr. Lu Zhifang

*Note: Mr. Cheng Liquan Richard was redesignated from executive Director to non-executive Director with effect from 24 March 2023.*

**BIOGRAPHICAL DETAILS OF THE DIRECTORS AND THE SENIOR MANAGEMENT**

In accordance with Rule 13.51B(1) of the Listing Rules, the changes to information required to be disclosed by the Directors pursuant to paragraphs (a) to (e) and (g) of Rule 13.51(2) between the date of announcement of the Company's 2022 Interim Report and the date of announcement of the Company's 2022 Annual Report is set out below:

Mr. Liu Genyu resigned as joint chief executive officer of China Nuclear Energy Technology Corporation Limited on 29 March 2023; and resigned as an executive director and the vice chairman of GCL New Energy Holdings Limited on 9 September 2022.

Save as disclosed above, there is no other information required to be disclosed pursuant to Rule 13.51B(1) of the Listing.

## 董事

截至2022年12月31日止年度的董事如下：

**執行董事**

曾之俊先生(主席)

程里全先生(附註)

**非執行董事**

鄭拓先生

朱偉航先生

陳學先生

**獨立非執行董事**

劉根鈺先生

謝國忠博士

陸志芳先生

附註：程里全先生已自2023年3月24日起由執行董事調任為非執行董事。

**董事及高級管理層的履歷詳情**

根據上市規則第13.51B(1)條，於本公司2022年中期報告刊發後至本公司2022年年報期間，董事按第13.51(2)條第(a)至(e)段及第(g)段規定披露資料的變動如下：

劉根鈺先生於2023年3月29日辭任為中國核能科技集團有限公司的聯席行政總裁；及於2022年9月9日辭任協鑫新能源控股有限公司的執行董事及董事會副主席。

除上文披露外，董事並無其他資料需根據上市規則第13.51B(1)條作出披露。





## Directors' Report (Continued)

### 董事會報告(續)

#### CONFIRMATION OF INDEPENDENCE OF INDEPENDENT NON-EXECUTIVE DIRECTORS

The Company has received a confirmation of independence pursuant to Rule 3.13 of the Listing Rules from each of the independent non-executive Directors and the Company considers such Directors to be independent during the period from their respective appointments and up to the date of this annual report.

#### EQUITY-LINKED AGREEMENTS

Save for the Pre-IPO Share Award Scheme of the Company as set out in note 36 to the consolidated financial statements and the Scheme as disclosed in the section headed "Share Option Scheme" below, no equity-linked agreements were entered into by the Group, or existed during the year ended 31 December 2022.

#### DIRECTORS' SERVICE CONTRACT AND LETTER OF APPOINTMENTS

During the Reporting Period, each of the executive Directors has entered into a service contract with the Company for an initial term of three years commencing from 28 February 2018. Such service contracts were renewed on similar terms and effective from 28 February 2021 for another term of three years. Subsequent to the Reporting Period, Mr. Cheng Liquan Richard was re-designated from executive Director to non-executive Director with effect from 24 March 2023. As a result of the re-designation, Mr. Cheng has entered into a new appointment letter with the Company for a term of three years commencing from 24 March 2023.

During the Reporting Period, each of the non-executive Directors and the independent non-executive Directors has signed an appointment letter with the Company for an initial term of three years commencing from 28 February 2018. Such appointment letters were renewed on similar terms and effective from 28 February 2021 for another term of three years.

None of the Directors has a service contract which is not determinable by the Group within one year without payment of compensation other than statutory compensation.

#### 獨立非執行董事的獨立性確認書

本公司已接獲各獨立非執行董事根據上市規則第3.13條所作獨立性確認書，且本公司認為該等董事自彼等各自獲委任日期起及直至本年報日期止期間為獨立人士。

#### 股本掛鈎協議

除載於綜合財務報表附註36的本公司首次公開發售前股份獎勵計劃及下文「購股權計劃」一節所披露的計劃外，截至2022年12月31日止年度，本集團概無訂立任何股本掛鈎協議，或概無過往訂立的股本掛鈎協議。

#### 董事的服務合約及委任函

於報告期內，各執行董事已與本公司訂立服務合約，初步任期自2018年2月28日起計為期三年。該等服務合約已按相若條款續期，自2021年2月28日起生效，而重續之年期為三年。於報告期後，程里全先生已由執行董事調任為非執行董事，自2023年3月24日起生效。由於調任，程先生已與本公司訂立新委任函件，自2023年3月24日起為期三年。

於報告期內，各非執行董事及獨立非執行董事已與本公司簽訂委任書，初步任期自2018年2月28日起計為期三年。該等委任書已按相若條款續期，自2021年2月28日起生效，而重續之年期為三年。

概無董事訂立本集團不可於一年內終止而毋須支付賠償(法定賠償除外)的服務合約。

## Directors' Report (Continued)

## 董事會報告(續)

## DIRECTORS' INTERESTS IN TRANSACTIONS, ARRANGEMENTS OR CONTRACTS OF SIGNIFICANCE

Save as disclosed in the section headed "Connected Transactions" below, neither the Director nor any entity connected with the Director had a material interest in, either directly or indirectly, in any contract of significance to the business of the Group to which the Company or any of its subsidiaries was a party during the year ended 31 December 2022.

## SHARE OPTION SCHEME

The Company adopted a share option scheme (the "**Scheme**") on 29 December 2020, i.e. the date on which the Scheme was adopted by resolution of the Shareholders at general meeting (the "**Adoption Date**"). The purpose of the Scheme is to enable the Group to grant Options to the eligible participants as incentives or rewards for their contribution to the Group. Eligible participants of the Scheme include any eligible employee, any independent non-executive director and chief executive (as defined in the Listing Rules) of the Company or any subsidiary, any director (including independent non-executive director) and chief executive (as defined in the Listing Rules) of any invested entity, any adviser (professional or otherwise) or consultant to any area of business or business development of any member of the Group or any invested entity, any supplier of goods or services to any member of the Group or any invested entity, any customer of any member of the Group or any invested entity, any person or entity that provides research, development or other technological support to any member of the Group or any invested entity; and any shareholder of any member of the Group or any invested entity or any holder of any securities issued by any member of the Group or any invested entity.

The principal terms of the Scheme are summarised as follows:

- (a) The maximum number of the Company's shares which may be issued upon exercise of all options to be granted under the Scheme must not exceed 10% of the number of the Company's shares in issue as at the Adoption Date (which were 1,007,106,799 shares) unless shareholders' approval has been obtained, and which must not exceed 30% of the total number of the Company's shares in issue from time to time (or such other percentage as may be allowed under the Listing Rules).

## 董事於交易、安排或重大合約的權益

除下文「關連交易」一節所披露者外，截至2022年12月31日止年度，概無董事或任何與董事有關連的實體於本公司或其任何附屬公司訂立之對本集團業務而言屬重大的任何合約中直接或間接擁有重大權益。

## 股份期權計劃

本公司於2020年12月29日（「採納日期」）採納一項股份期權計劃（「該計劃」），於當日，該計劃在股東大會上獲股東通過決議案採納。該計劃旨在讓本集團可向合資格參與者授出期權，作為彼等對本集團作出貢獻之獎勵或回報。該計劃的合資格參與者包括：任何合資格僱員；本公司或任何附屬公司的任何獨立非執行董事及最高行政人員（定義見上市規則）；任何被投資實體的任何董事（包括獨立非執行董事）及最高行政人員（定義見上市規則）；本集團任何成員公司或任何被投資實體的任何業務範疇或業務發展的任何顧問（專業或其他方面）或專業顧問；向本集團任何成員公司或任何被投資實體提供產品或服務的任何供應商；本集團任何成員公司或任何被投資實體的任何客戶；向本集團任何成員公司或任何被投資實體提供研究、開發及其他技術支援的任何人士或實體；及本集團任何成員公司或任何被投資實體的任何股東，或由本集團任何成員公司或任何被投資實體發行任何證券的任何持有人。

該計劃的主要條款概述如下：

- (a) 因行使根據該計劃將予授出的所有期權而可能發行的本公司股份最高數目，不得超過本公司於採納日期已發行股份數目（為1,007,106,799股股份）的10%，惟已獲得股東批准則除外，而在此情況下，上述股份最高數目不得超過本公司不時的已發行股份總數的30%（或上市規則可能容許的其他百分比）。

## Directors' Report (Continued)

### 董事會報告(續)

As at the date of this annual report, as no option had been granted under the Scheme, the Company had the capacity to grant options to subscribe for a maximum of 100,710,679 shares in aggregate, which represents the total unutilized mandate limit under the Scheme and represents 10% of the issued shares of the Company as at the Adoption Date and approximately 10% of the issued shares of the Company as at the date of this report.

截至本年報日期，由於並無根據該計劃授出期權，因此本公司有能力授出可認購合共最多100,710,679股股份的期權，相當於該計劃項下的總未動用授權上限，亦相當於本公司於採納日期的已發行股份10%及本公司於本報告日期的已發行股份約10%。

- (b) The maximum number of shares of the Company issued and to be issued upon exercise of the options granted to each eligible participant under the Scheme or any other share option schemes adopted by the Company (including both exercised, cancelled and outstanding options) in any 12-month period must not exceed 1% of the total number of issued shares of the Company.
- (b) 於任何12個月期間，因根據該計劃及本公司採納的任何其他股份期權計劃向每名合資格參與者授出的期權(包括已行使、已註銷或尚未行使的期權)獲行使而發行及將予發行的股份最高數目，不得超過本公司已發行股份總數的1%。
- (c) The subscription price in respect of each share of the Company issued pursuant to the exercise of options granted under the Scheme shall be determined by the Board and notified to an eligible participant at the time of the grant of the options and shall be at least the highest of (i) the closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheets on the date of the Board approving the grant of option, which must be a business day ("**Date of Grant**"); (ii) the average closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the Date of Grant; and (iii) the nominal value of the Company's share.
- (c) 因根據該計劃授出的期權獲行使而發行的本公司每股股份的認購價，應由董事會釐定並於授出期權時通知合資格參與者，而認購價不得少於以下最高者：(i)於舉行董事會會議以批准授出期權的日期(必須為營業日)(「授出日期」)在聯交所每日報價表所列的本公司股份收市價；(ii)緊接授出日期前五個營業日在聯交所每日報價表所列的本公司股份平均收市價；及(iii)本公司股份面值。
- (d) The period within which the options must be exercised will be specified by the Company at the time of grant. This period must expire no later than ten years from the relevant Date of Grant. The Board may also provide restrictions on the exercise of an option during the period an option may be exercised.
- (d) 期權須予行使的期間將由本公司於授出時指定。該期間須不遲於自有關授出日期起計滿十年之日屆滿。董事會亦可於期權可予行使的期間內對期權的行使施加限制。

## Directors' Report (Continued)

## 董事會報告(續)

- (e) Upon acceptance of an option, the grantee shall pay HK\$1 to the Company as consideration for the grant within 21 days from the Date of Grant. (e) 於接納期權時，承授人須於授出日期起計21日內向本公司支付1港元，作為獲授期權之代價。
- (f) The Scheme shall be valid and effective for a period of ten years from the Adoption Date. (f) 該計劃於採納日期起計十年期間內有效及具效力。

Details of movements in the share options granted under the Scheme for the year ended 31 December 2022 are set out below:

截至2022年12月31日止年度根據該計劃授出的股份期權的變動詳情如下：

Grantee	Date of grant	Exercise period	Exercise price (HK\$)	Closing price	Outstanding as at 1 January 2022	Granted during the Reporting Period	Exercised during the Reporting Period	Cancelled during the Reporting Period	Lapsed during the Reporting Period	Outstanding as at 31 December 2022
				per Share immediately prior to the date of grant						
承授人	授出日期	行使期	行使價 (港元)	於緊接授出日期前每股收市價 (港元)	於2022年1月1日尚未行使	報告期間內授出	報告期間內行使	報告期間內註銷	報告期間內失效	於2022年12月31日尚未行使
Employees 僱員	7 April 2021 2021年4月7日	7 April 2022 – 6 April 2031 2022年4月7日至 2031年4月6日	1.51	1.39	3,120,000	-	-	-	-	3,120,000
	28 June 2021 2021年6月28日	28 June 2022 – 27 June 2031 2022年6月28日至 2031年6月27日	1.88	1.93	11,100,000	-	-	-	1,750,000	9,350,000
<b>Granted total</b> 授出總數					14,220,000	-	-	-	1,750,000	12,470,000

## Directors' Report (Continued)

### 董事會報告(續)

#### PERMITTED INDEMNITY

Pursuant to the amended and restated memorandum and articles of association of the Company, every Director shall be indemnified out of the assets of the Company against all losses or liabilities incurred or sustained by him as a director of the Company. The Company has arranged appropriate liability insurance to indemnify the Directors for their liabilities arising out of corporate activities.

#### MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or existed during the year ended 31 December 2022.

#### CONTROLLING SHAREHOLDERS' INTERESTS IN CONTRACTS

During the Reporting Period, the Company had no controlling shareholder. The Company has no shareholder who may exercise more than 30% of the shares with voting rights of the Company when acting alone or in concert with others, while any shareholder of the Company cannot control the resolutions of the general meeting or the resolutions of the Board meeting by shares with voting rights he/she holds, and there is no shareholder who controls the conduct of the Company through the general meeting or *de facto* controls the conduct of the Company through the Board of Directors and senior management. At the same time, there is no shareholder *de facto* controlling the Company in any other manner when acting along or in concert with others.

#### 獲准許彌償條文

根據本公司經修訂及經重列組織章程大綱及細則，每位董事須就其作為本公司董事而產生或蒙受的一切虧損或負債，可自本公司資產中獲得彌償。本公司已為董事安排合適的責任保險，以保障彼等因企業活動而引起之責任賠償。

#### 管理合約

截至2022年12月31日止年度，概無就本公司整體業務或其任何主要部份的管理及行政訂立或存續任何合約。

#### 控股股東於合約的權益

於報告期內，本公司並無控股股東。本公司並無任何股東於單獨或與其他人士一致行動時可行使本公司30%以上的附有投票權之股份，而本公司任何股東概不可藉其持有的附有投票權之股份控制股東大會的決議案或董事會會議的決議案，亦概無股東可透過股東大會控股本公司的行動，或透過董事會及高級管理層實際上控制本公司的行動。同時，概無股東於單獨或與其他人士一致行動時可以任何其他方式實際上控制本公司。

## Directors' Report (Continued)

### 董事會報告(續)

#### EMPLOYEES

The Group had 1,459 employees as at 31 December 2022, as compared with 1,857 employees as at 31 December 2021. The decrease in the number of employees compared to the last year was due to the Group's continuous increase in investment in its information technology construction, which improved the per capita efficiency of its projects and optimized part of the personnel structure in line with the needs of business transformation. The employees of the Company are employed under employment contracts which set out, among other things, their job scope and remuneration. Further details of their employment terms are set out in the employee handbook of the Company. The Company determines the employees' salaries based on their job nature, scope of duty, and individual performance. The Company also provides various benefits to the employees including medical care, housing subsidies, retirement and other benefits as well as on-the-job education, training and other opportunities to improve their skills and knowledge. The Company also provides employees with contributions to social insurance and housing provident fund for the employees in accordance with PRC regulations and the internal.

#### EMOLUMENT POLICY

The Remuneration Committee was set up for reviewing the Group's emolument policy and structure for all remuneration of the directors and senior management of the Group, having regard to the Group's operating results, individual performance of the directors and senior management and comparable market practices.

#### REMUNERATION OF DIRECTORS AND FIVE INDIVIDUALS WITH HIGHEST EMOLUMENTS

Details of the emoluments of the Directors and five highest paid individuals are set out in note 9 to the consolidated financial statements.

#### 僱員

於2022年12月31日，本集團有1,459名僱員，而2021年12月31日有1,857名僱員。僱員人數較上年減少是由於本集團持續加大信息化建設投入，提升了項目人均效率及結合業務轉型所需進行了部分人員結構優化。本公司的僱員乃根據載列(其中包括)其工作範圍及薪酬的僱傭合約僱傭。其僱傭條款的進一步詳情載於本公司的僱員手冊。本公司根據僱員的工作性質、職責範圍及個人表現釐定其薪金。本公司亦向僱員提供各種福利，包括醫療、住房補貼、退休及其他福利以及在職教育、培訓及其他機會，以改善其技能及知識。本公司亦根據中國法規及內部政策向僱員提供社會保險及住房公積金供款。

#### 薪酬政策

本集團已設立薪酬委員會，旨在根據本集團之經營業績、董事及高級管理層之個人表現及可資比較市場慣例，檢討本集團的薪酬政策及董事及高級管理層的全部薪酬架構。

#### 董事及五名最高薪酬人士酬金

董事及五名最高薪酬人士酬金詳情載於綜合財務報表附註9。

## Directors' Report (Continued)

### 董事會報告(續)

#### DIRECTORS' AND CHIEF EXECUTIVE'S INTERESTS AND SHORT POSITION IN SHARES, UNDERLYING SHARES AND DEBENTURES

As at 31 December 2022, the interests and short positions of the Directors and the chief executive of the Company in the 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 (the "SFO")) (i) which were required to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which were taken or deemed to have under such provisions); or (ii) which were required to be recorded in the register of the Company required to be kept under Section 352 of the SFO; or (iii) which were required to be notified to the Company and the Stock Exchange pursuant to the Model Code.

#### 董事及最高行政人員於股份、相關股份及債券之權益及淡倉

於2022年12月31日，本公司董事或最高行政人員於本公司或其任何相聯法團(定義見證券及期貨條例第XV部)的股份、相關股份及債權證中擁有(i)根據證券及期貨條例(「證券及期貨條例」)第XV部第7及8分部須知會本公司及聯交所的權益及淡倉(包括根據證券及期貨條例的有關條文被當作或視作擁有的權益及淡倉);或(ii)根據證券及期貨條例第352條的規定須記入本公司存置的登記冊的權益及淡倉;或(iii)根據標準守則須知會本公司及聯交所的權益及淡倉如下:

#### Long position in our Shares, underlying Shares and debentures of our Company

#### 於本公司股份、相關股份及債權證中的好倉

Name of Director 董事姓名	Nature of Interest 權益性質	Number and class of Shares 股份數及類別	Approximate percentage of shareholding 概約持股百分比
Mr. Zeng Zhijun 曾之俊先生	Interest of a controlled corporation (Note 1) 受控法團權益(附註1)	271,826,331 (Long Position) (好倉)	27.03%
Mr. Cheng Liquan Richard 程里全先生	Interest of a controlled corporation (Note 2); and beneficial owner (Note 3) 受控法團權益(附註2); 及實益擁有人(附註3)	168,534,580 (Long Position) (好倉)	16.76%
Mr. Zhu Weihang 朱偉航先生	Interest of a controlled corporation (Note 4) 受控法團權益(附註4)	152,170,529 (Long Position) (好倉)	15.13%

## Directors' Report (Continued)

## 董事會報告(續)

## Notes:

- (1) Mr. Zeng holds the entire issued share capital of Best Dawn Limited ("**Best Dawn**") and 47.2% of interests in Asia Environment Investment Limited ("**Asia Environment**"). Therefore, Mr. Zeng is deemed to be interested in the Shares held by Best Dawn and Asia Environment under the SFO.
- (2) Mr. Cheng holds the entire issued share capital of World Hero International Limited ("**World Hero**"). Therefore, Mr. Cheng is deemed to be interested in the Shares held by World Hero under the SFO.
- (3) Mr. Cheng directly holds 400,000 shares of the Company.
- (4) The entire issued share capital of New Asia Limited ("**New Asia**") is held by Great Origin Ventures Limited ("**Great Origin**"), whose entire issued share capital is in turn held by Mr. Zhu. Therefore, Mr. Zhu is deemed to be interested in the Shares held by New Asia under the SFO.

## 附註：

- 1) 曾先生持有Best Dawn Limited (「**Best Dawn**」)之全部已發行股本及Asia Environment Investment Limited (「**Asia Environment**」)之47.2%權益。因此，曾先生根據證券及期貨條例被視為於Best Dawn及Asia Environment持有的股份中擁有權益。
- (2) 程先生持有World Hero International Limited (「**World Hero**」)之全部已發行股本。因此，程先生根據證券及期貨條例被視為於World Hero持有的股份中擁有權益。
- (3) 程先生直接持有本公司股份400,000股。
- (4) 偉源創投有限公司(「**偉源**」)持有New Asia Limited (「**New Asia**」)的全部已發行股本，而朱先生持有偉源的全部已發行股本。因此，朱先生根據證券及期貨條例被視為於New Asia持有的股份中擁有權益。

Save as disclosed above, as at 31 December 2022, none of the Directors and the chief executive of the Company had or was deemed to have any interest or short position in the Shares, underlying Shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) that was required to be recorded in the register of the Company required to be kept under Section 352 of the SFO, or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code.

除上文所披露者外，於2022年12月31日，概無本公司董事及最高行政人員在本公司或其任何相聯法團(定義見證券及期貨條例第XV部)的股份、相關股份或債權證中，擁有或被視作擁有須記錄於本公司根據證券及期貨條例第352條存置的登記冊或根據標準守則須知會本公司及聯交所的任何權益或淡倉。

## DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

At no time during the year ended 31 December 2022 was the Company, its holding company, or any of its subsidiaries, a party to any arrangement to enable the Directors to acquire benefits by means of the acquisition of shares in, or debt securities including debentures of, the Company or any other body corporate.

## 董事收購股份或債權證的權利

本公司、其控股公司或其任何附屬公司於截至2022年12月31日止年度內任何時間，概無參與任何安排致使董事可藉購入本公司或任何其他法人團體的股份或債券證券(包括公司債券)而獲益。



**Directors' Report (Continued)****董事會報告(續)****SUBSTANTIAL SHAREHOLDERS' INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES****主要股東於股份及相關股份中的權益及淡倉**

As at 31 December 2022, to the best knowledge of the Directors, the following persons (not being a Director or chief executive of the Company) had interests or short positions in the Shares or underlying Shares which fall to be disclosed to the Company under the provisions of Divisions 2 and 3 of Part XV of the SFO as recorded in the register required to be kept by the Company pursuant to section 336 of the SFO:

於2022年12月31日，據董事所深知，下列人士（並非本公司董事或最高行政人員）於股份或相關股份中擁有須記載於本公司按證券及期貨條例第336條須置存之登記冊內的根據證券及期貨條例第XV部第2及3分部的條文須向本公司披露的權益或淡倉：

<b>Name</b> 姓名／名稱	<b>Capacity/Nature of interest</b> 身份／權益性質	<b>Number of Shares</b> 股份數目	<b>Approximate percentage of shareholding</b> 股權概約百分比
Best Dawn Best Dawn	Beneficial owner (Note 1) 實益擁有人(附註1)	248,885,143 (Long Position) (好倉)	24.75%
Ms. Ge Tong 戈彤女士	Interest of spouse (Note 2) 配偶權益(附註2)	271,826,331 (Long Position) (好倉)	27.03%
World Hero World Hero	Beneficial owner (Note 3) 實益擁有人(附註3)	168,134,580 (Long Position) (好倉)	16.72%
Ms. Zhou Xuan 周旋女士	Interest of spouse (Note 4) 配偶權益(附註4)	168,534,580 (Long Position) (好倉)	16.76%

## Directors' Report (Continued)

## 董事會報告(續)

Name 姓名 / 名稱	Capacity/Nature of interest 身份 / 權益性質	Number of Shares 股份數目	Approximate percentage of shareholding 股權概約百分比
New Asia New Asia	Beneficial owner (Note 5) 實益擁有人(附註5)	152,170,529 (Long Position) (好倉)	15.13%
Great Origin 偉源	Interest of a controlled corporation (Note 5) 受控法團權益(附註5)	152,170,529 (Long Position) (好倉)	15.13%
Sinopec Overseas Investment Holding Limited ("Sinopec") 中國石化海外投資控股有限公司 (「中石化」)	Beneficial owner (Note 6) 實益擁有人(附註6)	110,294,118 (Long Position) (好倉)	10.97%
China Petroleum & Chemical Corporation 中國石油化工股份有限公司	Interest of a controlled corporation (Note 6) 受控法團權益(附註6)	110,294,118 (Long Position) (好倉)	10.97%



**Directors' Report (Continued)****董事會報告(續)**

## Notes:

## 附註:

- |                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <p>(1) Mr. Zeng holds the entire issued share capital of Best Dawn. Therefore, Mr. Zeng is deemed to be interested in the Shares held by Best Dawn under the SFO.</p>                                                                                                                                                                                                         | <p>(1) 曾先生持有Best Dawn之全部已發行股本，因此，曾先生根據證券及期貨條例被視為於Best Dawn所持有的股份中擁有權益。</p>                                                |
| <p>(2) Ms. Ge Tong is the spouse of Mr. Zeng. Under the SFO, Ms. Ge Tong is deemed to be interested in the same number of Shares in which Mr. Zeng is interested.</p>                                                                                                                                                                                                         | <p>(2) 戈彤女士為曾先生之配偶。根據證券及期貨條例，戈彤女士被視為於曾先生所持有權益之相同數目股份中擁有權益。</p>                                                            |
| <p>(3) Mr. Cheng holds the entire issued share capital of World Hero. Therefore, Mr. Cheng is deemed to be interested in the Shares held by World Hero under the SFO.</p>                                                                                                                                                                                                     | <p>(3) 程先生持有World Hero之全部已發行股本，因此，程先生根據證券及期貨條例被視為於World Hero所持有的股份中擁有權益。</p>                                              |
| <p>(4) Ms. Zhou Xuan is the spouse of Mr. Cheng. Under the SFO, Ms. Zhou Xuan is deemed to be interested in the same number of Shares in which Mr. Cheng is interested.</p>                                                                                                                                                                                                   | <p>(4) 周旋女士為程先生之配偶。根據證券及期貨條例，周旋女士被視為於程先生所持有權益之相同數目股份中擁有權益。</p>                                                            |
| <p>(5) The entire issued share capital of New Asia is held by Great Origin, whose entire issued share capital is in turn held by Mr. Zhu. Therefore, Mr. Zhu is deemed to be interested in the Shares held by New Asia under the SFO.</p>                                                                                                                                     | <p>(5) 偉源持有New Asia的全部已發行股本，而朱先生持有偉源的全部已發行股本。因此，朱先生根據證券及期貨條例被視為於New Asia所持有的股份中擁有權益。</p>                                  |
| <p>(6) China Petroleum &amp; Chemical Corporation holds the entire issued share capital of Sinopec. Therefore, China Petroleum &amp; Chemical Corporation is deemed to be interested in the Shares held by Sinopec under the SFO. China Petroleum &amp; Chemical Corporation is a PRC state-owned company, whose H shares are listed on the Main Board (stock code: 386).</p> | <p>(6) 中國石油化工股份有限公司持有中石化之全部已發行股本。因此，中國石油化工股份有限公司根據證券及期貨條例被視為於中石化所持有的股份中擁有權益。中國石油化工股份有限公司為一家中國國有企業，其H股於主板上市(股份代號：386)。</p> |

Save as disclosed above, and as at 31 December 2022, the Directors were not aware of any persons (who were not directors or chief executive of the Company) who had an interest or short position in the Shares or underlying Shares of the Company which would fall to be disclosed under Divisions 2 and 3 of Part XV of the SFO, or which would be required, pursuant to Section 336 of the SFO, to be entered in the register referred to therein.

除上文所披露者外，於2022年12月31日，董事並不知悉任何人士(並非本公司董事或最高行政人員)於本公司股份或相關股份中擁有根據證券及期貨條例第XV部第2及3分部的條文須予披露的權益或淡倉，或根據證券及期貨條例第336條須記入該條所述登記冊的權益或淡倉。

## Directors' Report (Continued)

## 董事會報告(續)

## DIRECTORS' INTEREST IN COMPETING BUSINESS

For the year ended 31 December 2022, none of the Directors or their respective associates had engaged in or had any interest in any business which competes or may compete with the businesses of the Group.

## CONNECTED TRANSACTIONS

During the Reporting Period, the Group has entered into certain non-exempt continuing connected transactions, which are subject to the reporting, announcement and/or independent Shareholders' approval requirements under Chapter 14A of the Listing Rules. The Directors confirmed that the Group has complied with the disclosure requirements prescribed in Chapter 14A of the Listing Rules and has followed the pricing policies under relevant agreements in respect of the following continuing connected transactions for the year ended 31 December 2022.

## 1. Yangxi #1-#4 Facilities Project

On 31 December 2016, Beijing Boqi, Guangdong Huaxia Electric Development Co., Ltd (廣東華廈電力發展有限公司) (“**Guangdong Huaxia Electric**”) and Yangxi Haibin Electric Power Development Co., Ltd (陽西海濱電力發展有限公司) (“**Yangxi Electric**”) entered into a management service agreement (“**Yangxi Management Service Agreement**”) in relation to the provision of operation, daily maintenance and repair services in respect of the #1-#4 desulfurization and denitrification facilities owned by Yangxi Electric (“**Yangxi #1-#4 Facilities**”) prior to the completion of the acquisition of the Yangxi #1-#4 Facilities under the cooperation framework agreement dated 20 May 2016 entered into between the said parties (“**Cooperation Framework Agreement**”). On 1 January 2017, Beijing

## 董事於競爭業務中的權益

截至2022年12月31日止年度，概無董事或彼等各自之聯繫人已從事與本集團業務競爭或可能競爭的任何業務，或於其中持有任何權益。

## 關連交易

於報告期內，本集團訂立若干非豁免持續關連交易，根據上市規則第14A章，須遵守申報、公告及／或獨立股東批准的規定。董事確認，截至2022年12月31日止年度，本集團已就以下持續關連交易遵守上市規則第14A章指定的披露規定並已遵循相關協議之定價政策。

## 一、 1-4號陽西設施項目

於2016年12月31日，北京博奇、廣東華廈電力發展有限公司(「廣東華廈電力」)及陽西海濱電力發展有限公司(「陽西電力」)訂立管理服務協議(「陽西管理服務協議」)，內容有關於根據上述訂約方訂立日期為2016年5月20日的合作框架協議(「合作框架協議」)完成收購1-4號陽西設施前向陽西電力擁有的1-4號脫硫及脫硝設施(「1-4號陽西設施」)提供運營、日常維護及修復服務。於2017年1月1日，北京博奇、廣東華廈電力與陽西電力另行訂立補充協議，以釐定陽西管理服務協議的定價條款(「陽西服務定價協議」)。基於1-4號陽西設施的按揭意外地延遲解除，以及合作框架協議項下1-4號陽西設施的擬議

## Directors' Report (Continued)

### 董事會報告(續)

Boqi, Guangdong Huaxia Electric and Yangxi Electric further entered into a supplemental agreement solely to determine the pricing terms of the Yangxi Management Service Agreement (the “**Yangxi Service Pricing Agreement**”). Due to an unexpected delay in the release of the mortgage on the Yangxi #1-#4 Facilities, the completion of the proposed acquisitions of the Yangxi #1-#4 Facilities under the Cooperation Framework Agreement was delayed, and it was agreed between Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric not to proceed with the proposed acquisitions of the Yangxi #1-#4 Facilities. Accordingly, on 28 August 2017, Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric entered into a supplemental agreement (“**Yangxi Supplemental Agreement**”) under which, the proposed acquisitions of the Yangxi #1-#4 Facilities under the Cooperation Framework Agreement, were terminated. On the same day, Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric entered into a supplemental agreement (the “**Yangxi Supplemental Management Service Agreement**”) to supersede and extend the term of the services under the Yangxi Management Services Agreement from 1 January 2017 to 30 September 2017 to a term from 1 January 2017 to 31 December 2025. Other provisions in relation to the services and ancillary services to be provided by Beijing Boqi under the

收購事項延遲完成，故北京博奇、廣東華廈電力及陽西電力已協定不再進行1-4號陽西設施的擬議收購事項。因此，北京博奇、廣東華廈電力及陽西電力於2017年8月28日訂立補充協議（「**陽西補充協議**」），據此，合作框架協議項下的1-4號陽西設施的擬議收購事項已終止。同日，北京博奇、廣東華廈電力及陽西電力訂立補充協議（「**陽西補充管理服務協議**」）以將陽西管理服務協議服務期限由2017年1月1日至2017年9月30日延長至2017年1月1日至2025年12月31日。與北京博奇根據陽西管理服務協議提供的服務及輔助服務有關的其他條文於延長期限內保持不變。於2018年3月8日，北京博奇、廣東華廈電力及陽西電力訂立補充協議（「**2018年3月補充協議**」），以就陽西電力收購的電廠基於進一步配額釐定額外上網電量的單價。於2018年7月20日，鑒於北京博奇如今亦可共享廣東華廈陽西電廠所享之稅收優惠，故北京博奇、廣東華廈電力及陽西電力訂立補充協議（「**2018年7月補充協議**」，連同2018年3月補充協議統稱「**2018年補充協議**」），以釐定提供運維服務的相關固定費率（包括增值稅）的價格調整。為免生疑問，相關固定費率（不包括增值稅）維持不變。於2020年11月30日，北京博

**Directors' Report (Continued)****董事會報告 (續)**

Yangxi Management Services Agreement remain unchanged for the extended term. On 8 March 2018, Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric entered into a supplemental agreement (the **"March 2018 Supplemental Agreement"**) to determine the unit price in relation to the additional on-grid power generation based on the further quota for power generation acquired by Yangxi Electric. On 20 July 2018, Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric entered into a supplemental agreement (the **"July 2018 Supplemental Agreement"**, together with the March 2018 Supplemental Agreements as the **"2018 Supplemental Agreements"**) to determine the price adjustment to the relevant fixed rates (inclusive of value-added tax) for the provision of O&M services, due to a tax relief enjoyed by Guangdong Huaxia Yangxi power plant, which is now shared with Beijing Boqi. For the avoidance of doubt, the relevant fixed rates (exclusive of value-added tax) remain unchanged. On 30 November 2020, Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric entered into a supplemental agreement (the **"2020 Supplemental Agreement"**, together with Yangxi Management Service Agreement, Yangxi Service Pricing Agreement, Yangxi Supplemental Management Service Agreement and 2018 Supplemental Agreements as **"Yangxi Agreements"**) to amend and supplement certain terms in relation to the pricing terms for the provision of O&M services and the Ancillary Charges in accordance with the market-based pricing mechanism.

Under the Yangxi Agreements, Beijing Boqi provides operation, daily maintenance and repair services in respect of the Yangxi #1-#4 Facilities to Yangxi Electric for a term from 1 January 2017 to 31 December 2025.

奇、廣東華廈電力及陽西電力訂立補充協議(「**2020年補充協議**」)，連同陽西管理服務協議、陽西服務定價協議、陽西補充管理服務協議及2018年補充協議合稱為「**陽西協議**」，以修訂及補充有關提供O&M服務的定價條款及根據市場定價機制釐定輔助費用之若干條款。

根據陽西協議，北京博奇就1-4號陽西設施向陽西電力提供運營、日常維護及維修服務，期限自2017年1月1日起至2025年12月31日止。



**Directors' Report (Continued)****董事會報告(續)**

Parties:	Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric	訂約方：	北京博奇、廣東華廈電力及陽西電力
Term of the agreement:	1 January 2017 to 31 December 2025.	協議期限：	2017年1月1日至2025年12月31日。
Services to be provided:	The services to be provided by Beijing Boqi include the operation, daily maintenance and repair of Yangxi #1-#4 Facilities. Beijing Boqi is also responsible for the materials used in the services provided as well as treatment of waste created during the provision of such services.	將予提供的服務：	北京博奇將予提供的服務包括1-4號陽西設施的營運、日常維護及維修。北京博奇亦負責供應所提供服務使用的材料及處理提供有關服務過程產生的廢棄物。
Service fee policy:	The service fee under the Yangxi Agreements is calculated based on the on-grid power generation multiplied by a rate which is determined by the parties. The pricing terms of the Yangxi Agreements were determined under the Yangxi Service Pricing Agreement. Such pricing terms are arrived at on arm's length negotiations between Beijing Boqi, Yangxi Electric and Guangdong Huaxia Electric and are determined with reference to (i) the relevant subsidies with respect to desulfurization and denitrification as set by the government; and (ii) the fees and expenses in respect of the operation, management and maintenance of the desulfurization and denitrification facilities.	服務費政策：	陽西協議項下的服務費乃按上網電量乘以訂約方釐定的服務費率。陽西協議的定價條款根據陽西服務定價協議釐定。該定價條款乃經北京博奇、陽西電力及廣東華廈電力公平磋商後達致，並經參考(i)政府制定的脫硫及脫硝的相關補貼；及(ii)經營、管理及維護脫硫及脫硝設施的費用及開支釐定。
Payment obligation:	Yangxi Electric shall pay to Beijing Boqi the service fee within 15 days of Yangxi Electric receiving the electricity fee from the State Power Grid.	付款義務：	陽西電力須於陽西電力自電網公司收取電費後15日內向北京博奇支付服務費用。

## Directors' Report (Continued)

## 董事會報告(續)

Beijing Boqi shall pay to Yangxi Electric a performance guarantee in an amount of RMB139,690,000 for guaranteeing its work and performance under the Yangxi Agreements and safe operation of the Yangxi #1-#4 Facilities.

The above performance guarantee is arrived at on arm's length negotiations between Beijing Boqi, Guangdong Huaxia Electric and Yangxi Electric and determined based on the estimated service fee to be received (i.e. the estimated on-grid power generation multiplied by a rate (10%) which is determined by the parties) multiplied by the term of the Yangxi Agreements (i.e. 8 years). Such performance guarantee has been paid to Yangxi Electric and shall be refunded to Beijing Boqi upon completion of the term of the Yangxi Agreements.

Ancillary charges:

Under the Yangxi Agreements, Beijing Boqi shall pay to Yangxi Electric before the 10th day of each month the ancillary charges, including relevant operation fees such as water, electricity, vapor, gas, environmental protection penalty and pollution tax fees and other relevant operational charges.

根據陽西補充管理服務協議，北京博奇須向陽西電力支付履約保證金人民幣139,690,000元，以為其於陽西協議項下的工程及績效以及1-4號陽西設施的安全營運作擔保。

上述履約保證金乃基於預計將收取的服務費(即預計上網電量乘以由訂約雙方釐定的服務費率(10%))乘以陽西協議的年期(即8年)經北京博奇、廣東華廈電力及陽西電力公平磋商後釐定。相關履約保證金已向陽西電力支付，並將在陽西協議條款完成後退還北京博奇。

輔助費用：根據陽西協議，北京博奇將於每月第10日前向陽西電力支付輔助費用，包括水、電、蒸汽、汽、環保罰款及排汙稅費等相關運營費用。





## Directors' Report (Continued)

### 董事會報告(續)

Yangxi Electric is a wholly-owned subsidiary of Guangdong Huaxia Electric, which is owned and controlled by, through various intermediaries, Mr. Zhu Yihang, the brother and associate of Mr. Zhu, one of our substantial shareholders and is therefore a connected person of the Company under Rule 14A.07(4) of the Listing Rules. The above transaction is entered into on normal commercial terms. Prior to the Listing, the Company had applied to the Stock Exchange and the Stock Exchange had granted the Company, a waiver from (i) strict compliance three-year term requirement for continuing connected transactions under Rule 14A.52 of the Listing Rules and (ii) strict compliance with the rules regarding the announcement and independent Shareholders' approval requirements under Chapter 14A of the Listing Rules, on the condition that the respective aggregate amounts of non-exempt continuing connected transactions with Yangxi Electric for the years 2018, 2019 and 2020 would not exceed the respective annual caps set out in the Prospectus. The renewed annual caps for the continuing connected transactions under the Yangxi Agreements for the three years ending 2023 were approved by the Independent Shareholders at an EGM held on 29 December 2020.

For details, please refer to the disclosure as set out in the section headed "Connected Transactions" of the Prospectus and the Company's announcement dated 12 March 2019, circular dated 31 May 2019, announcement dated 30 November 2020 and circular dated 8 December 2020.

The annual caps of Yangxi Agreements for service fees and ancillary charges for the year ended 31 December 2022 were RMB189.31 million and RMB65.27 million, respectively. For the year ended 31 December 2022, the actual service fees were RMB178.21 million (2021: RMB184.44 million) and the actual ancillary charges were RMB60.19 million (2021: RMB59.82 million).

陽西電力為廣東華廈電力的全資附屬公司，而廣東華廈電力由我們的主要股東之一朱先生的兄弟及聯繫人朱一航先生透過多家中介公司擁有及控制權益，故此根據上市規則第14A.07(4)條為本公司的關連人士。上述交易按一般商業條款訂立。於上市前，本公司已向聯交所申請且聯交所已批准本公司豁免(i)嚴格遵守上市規則第14A.52條項下持續關連交易的三年期限規定；及(ii)嚴格遵守上市規則第14A章項下公告及獨立股東批准規定，條件是於2018年、2019年及2020年與陽西電力的非豁免持續關連交易的相關總金額不得超過招股章程所載的相關年度上限。截至2023年12月31日止三個年度陽西協議項下持續關連交易的經更新年度上限已由獨立股東在2020年12月29日舉行的股東特別大會上批准。

有關詳情，請參閱招股章程「關連交易」一節所載的披露及本公司日期為2019年3月12日之公告、日期為2019年5月31日之通函、日期為2020年11月30日之公告及日期為2020年12月8日之通函。

截至2022年12月31日止年度，陽西協議的服務費及附加費用的年度上限分別為人民幣189.31百萬元及人民幣65.27百萬元。截至2022年12月31日止年度，實際服務費為人民幣178.21百萬元(2021年：人民幣184.44百萬元)及實際附加費用為人民幣60.19百萬元(2021年：人民幣59.82百萬元)。

## Directors' Report (Continued)

## 董事會報告(續)

## 2. Yangxi #5-#6 Facilities Project

On 25 January 2022, Beijing Boqi entered into the No. 5-6 Yangxi Facilities Maintenance Service Agreement with Yangxi Electric.

Parties: Beijing Boqi and Yangxi Electric

Term of the agreement: 1 January 2022 to 31 August 2027

Services to be provided: The services to be provided by Beijing Boqi include maintenance of maintenance facilities, electrical facilities, thermal control facilities and comprehensive facilities and sanitation and cleaning of all equipment.

Service fee policy: Subject to adjustment, the total service fee is RMB33.92 million, which includes (i) routine maintenance fee for the No. 5-6 Yangxi Facilities of RMB455,864 per month for 68 months; (ii) C-level inspection and maintenance for each of the No. 5-6 Yangxi Facilities of RMB192,124.8 for 10 times; and (iii) adjustment provision for labor costs for routine maintenance for the No. 5-6 Yangxi Facilities in the third stage between January 2025 and August 2027 of up to RMB1 million during the entire term of the agreement. For details of adjustment mechanism of labor costs, please refer to the Company's announcement dated 25 January 2022.

## 二、 5-6號陽西設施項目

於2022年1月25日，北京博奇與陽西電力訂立陽西5-6號設施的維護服務協議。

訂約方：北京博奇及陽西電力

協議期限：2022年1月1日至2027年8月31日

將予提供的服務：北京博奇將予提供的服務包括維護設施、電氣設施、熱控設施及綜合設施的維護以及所有設備的消毒和清潔。

服務費政策：服務費總額為人民幣33.92百萬元（可予調整），其中包括(i)5-6號陽西設施的日常維護費每月人民幣455,864元，於68個月收取；(ii)5-6號陽西設施各項的C級檢修及維護費人民幣192,124.8元，收取10次；及(iii)於2025年1月至2027年8月就5-6號陽西設施第三階段日常維護的人工成本調整撥備最多人民幣1百萬元，於整個協議年內收取。有關人工成本的調整機制詳情，請參閱本公司日期為2022年1月25日的公告。



**Directors' Report (Continued)****董事會報告(續)**

Payment obligation: Yangxi Electric shall pay Beijing Boqi 90% of the total payment for the previous month as approved by Yangxi Electric and the remaining 10% will be withheld by Yangxi Electric as maintenance warranty (the “**maintenance warranty**”). The last monthly payment will be made after the parties settle the No. 5-6 Yangxi Facilities Maintenance Service Agreement.

Yangxi Electric shall refund maintenance warranty (interest-free) in the manner as set out in the No. 5-6 Yangxi Facilities Maintenance Service Agreement.

Reference is made to the Company's announcement dated 25 January 2022.

付款義務：陽西電力須向北京博奇支付陽西電力批准的上月付款總額的90%，餘下10%將由陽西電力保留作維護質保金（「**維護質保金**」）。最後一筆每月付款將於訂約雙方結清5-6號陽西設施維護服務協議後作出。

陽西電力須按5-6號陽西設施維護服務協議所載的方式退還維護質保金（免息）。

請參考本公司日期為2022年1月25日的公告。

## Directors' Report (Continued)

## 董事會報告(續)

The annual caps of No. 5-6 Yangxi Facilities Maintenance Service Agreement for service fee for the year ended 31 December 2022 was RMB5.9 million. For the year ended 31 December 2022, the actual service fee was RMB5.3 million.

截至2022年12月31日止年度5-6號陽西設施維護服務協議的服務費年度上限為人民幣5.9百萬元。截至2022年12月31日止年度，實際服務費為人民幣5.3百萬元。

### 3. Chongqing Chuanwei EPC Contract

Date of the contract: 14 September 2018

Date of signing: Chongqing Chuanwei Petrochemical Engineering Company Limited of the Sinopec Group ("**Chongqing Chuanwei**") (contract-issuing party) and Beijing Boqi (Contractor)

Scope of work: Engineering of ultra-low emission upgrade project of coal-fired boiler; denitrification, desulfurization and dust removal except upgrade of boiler itself; procurement and supply of relevant equipment; construction (including building, installation, removal and transportation of structures related to the project) and subsequent testing and performance evaluation.

Contract value: RMB205,880,000 (tentative estimate of the total value)

### 三、重慶川維EPC合同

簽約日期：2018年9月14日

訂約方：中國石化集團重慶川維化工有限公司(「**重慶川維**」)(發包人)及北京博奇(承攬人)

工作範圍：燃煤鍋爐超低排放改造項目的工程；除鍋爐本體改造以外的脫硝、脫硫及除塵；相關設備的採購及供應；施工(包括建造、安裝、移除及運輸與項目相關的結構)及後續測試及性能評估。

合同價值：人民幣205,880,000元(暫估總價)



## Directors' Report (Continued)

### 董事會報告(續)

Reasons for and the benefits of the transaction: Chongqing Chuanwei EPC Contract is in line with the business development strategy and operation structure adjustment of the Company, which began in late 2016 to explore markets for petrochemicals and steel industries. The Company believes that the transaction will enhance the desulfurization, denitrification and dust removal business of the Group. It is expected to expand the business opportunities between the Group and Sinopec Group and gain considerable project experience, which allows the Company to further expand the market and offer similar services to more market participants of the petrochemical industry in the near future.

For details of the terms of the Chongqing Chuanwei EPC Contract, please refer to the Company's announcement dated 14 September 2018 and circular dated 31 October 2018. In accordance with the Chongqing Chuanwei EPC Contract, the completion of the Chongqing Chuanwei EPC Project would be October 2020. The schedule of the Chongqing Chuanwei EPC Project has been postponed and interrupted because of the COVID-19 outbreak. Although Beijing Boqi has submitted an application in 2022 to start the auditing of the settlement of the Chongqing Chuanwei EPC Project, but Chongqing Chuanwei needs three rounds of auditing before it can be approved, hence the date of the Completion is currently uncertain. Save for the deferral of the schedule of the Chongqing Chuanwei EPC Project, as well as the consequential deferral of the final accounting and auditing, all the material terms of the Chongqing Chuanwei EPC Contract remain unchanged. For further details, please refer to the Company's announcements dated 23 August 2021 and 28 June 2022.

進行交易的理由及裨益：重慶川維EPC合同符合本公司從2016年底開始開拓石化鋼鐵領域市場的業務發展戰略和經營結構調整。本公司深信該等交易將提升本集團脫硫、脫硝和除塵業務，並期望進一步擴大本集團與中石化集團的商機並累積豐富的項目經驗，以便本公司於不久未來進一步開拓市場，向更多的石油化工行業的市場參與者提供類似的服務。

有關重慶川維EPC合同條款的詳情，請參閱本公司日期為2018年9月14日的公告及日期為2018年10月31日的通函。根據重慶川維EPC合同，重慶川維EPC項目應於2020年10月完成。由於新冠病毒疫情的爆發，重慶川維EPC項目的進度已延遲及受阻。儘管北京博奇已於2022年提交申請以開啟重慶川維EPC項目的決算審計，但重慶川維需要三輪審計才可批准，故完成日期目前仍未確定。除重慶順維EPC項目的時間表推遲，以及最終會計及審計隨之延遲外，重慶順維EPC項目所有主要條款維持不變。有關詳情，請參閱本公司日期為2021年8月23日及2022年6月28日的公告。

**Directors' Report (Continued)****董事會報告(續)**

Chongqing Chuanwei, is indirectly wholly owned by China Petrochemical Corporation through Sinopec Group Asset Management Co., Ltd. (Sinopec Group Asset Management Co., Ltd. and China Petroleum & Chemical Corporation are both subsidiaries of China Petrochemical Corporation, and China Petroleum & Chemical Corporation wholly owns Sinopec Overseas). Since Sinopec Overseas is one of the substantial Shareholders of the Company, and both companies are therefore a connected person of the Company under Rule 14A.07(4) of the Listing Rules. The above transaction is entered into on normal commercial terms.

The annual cap of Chongqing Chuanwei EPC Contract for the year ended 31 December 2022 was RMB10.1 million (2021: RMB60.73 million), while the actual transaction amount in aggregate for the year ended 31 December 2022 was RMB5.9 million (2021: RMB44.95 million).

重慶川維，由中國石油化工集團公司透過中國石化集團資產經營管理有限公司間接全資擁有(中國石化集團資產經營管理有限公司與中國石油化工股份有限公司均為中國石油化工集團公司的附屬公司，而中國石油化工股份有限公司全資擁有中石化海投)。鑒於中石化海投為我們的主要股東之一，因此，根據上市規則第14A.07(4)條，彼等各自均為本公司的關連人士。上述交易乃按一般商業條款訂立。

截至2022年12月31日止年度，重慶川維EPC合同的年度上限為人民幣10.1百萬元(2021年：人民幣60.73百萬元)，而截至2022年12月31日止年度合計之實際交易金額為人民幣5.9百萬元(2021年：人民幣44.95百萬元)。



## Directors' Report (Continued)

### 董事會報告(續)

#### CONFIRMATION BY INDEPENDENT NON-EXECUTIVE DIRECTORS

The independent non-executive Directors have reviewed each of the above mentioned continuing connected transactions and confirmed that:

- (1) the transactions stated in the section headed "Exempt Continuing Connected Transactions" in this annual report have been generated during the Group's ordinary and usual course of business on normal commercial terms (or more favorable than normal commercial terms available for the Group), and that the terms of such transactions are fair and reasonable, and are in the interests of the Company and its shareholders as a whole; and
- (2) the transactions and relevant annual caps stated in this section headed "Non-exempt Continuing Connected Transactions" in this annual report have been generated during the Group's ordinary and usual course of business on normal commercial terms (or more favorable than normal commercial terms available for the Group), and that the terms of such transactions are fair and reasonable, and are in the interests of the Company and its shareholders as a whole.

During the year ended 31 December 2022, the Group has complied with the disclosure requirements prescribed in Chapter 14A of the Listing Rules with respect to the connected transactions and continuing connected transactions entered into by the Group during the year under review.

#### 獨立非執行董事確認

獨立非執行董事已審閱上述各項持續關連交易，並確認：

- (1) 本年報「獲豁免持續關連交易」一節所載之交易乃於本集團之日常及一般業務過程中按一般商業條款(或優於本集團可取得的一般商業條款)產生，而該等交易條款屬公平合理，並符合本公司及其股東的整體利益；及
- (2) 本年報「不獲豁免持續關連交易」一節所載之交易及相關年度上限乃於本集團之日常及一般業務過程中按一般商業條款(或優於本集團可取得的一般商業條款)產生，而該等交易條款屬公平合理，並符合本公司及其股東的整體利益。

截至2022年12月31日止年度，本集團於回顧年度訂立的關連交易及持續關連交易，本公司已遵守上市規則第14A章所述的披露規定。

## Directors' Report (Continued)

## 董事會報告(續)

## AUDITOR'S LETTER

Pursuant to Rule 14A.56 of the Listing Rules, the Board engaged the auditors of the Company, Ernst & Young, to report on the Group's continuing connected transactions in accordance with the Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. Based on its work, Ernst & Young have provided the Board with a letter confirming that, with respect to the aforesaid continuing connected transactions:

- (1) nothing has come to the auditor's attention that causes the auditor to believe that the disclosed continuing connected transactions have not been approved by the Company's board of directors;
- (2) for transactions involving the provision of goods or services by the Group, nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Company;
- (3) nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions; and
- (4) with respect to the aggregate amount of each of the continuing connected transactions set out above, nothing has come to the auditor's attention that causes the auditor to believe that the disclosed continuing connected transactions have exceeded the annual cap as set by the Company.

## 核數師函件

根據上市規則第14A.56條，董事會已委聘本公司核數師安永會計師事務所按照香港會計師公會所頒佈的香港鑒證業務準則第3000號「歷史財務資料審計或審閱以外之鑒證工作」及參考實務說明第740號「香港上市規則規定的持續關連交易的核數師函件」申報本集團的持續關連交易。根據其工作，安永會計師事務所向董事會出具函件確認，就上述持續關連交易而言：

- (1) 核數師並無注意到任何事項令他們相信該等已披露的持續關連交易未獲本集團董事會批准；
- (2) 就本集團提供貨品或服務所涉及的交易，核數師並無注意到任何事項令他們相信該等交易在所有重大方面未有按照本集團的定價政策進行；
- (3) 核數師並無注意到任何事項令他們相信該等交易在所有重大方面未有按照規管該等交易的相關協議進行；及
- (4) 就上文所載每項持續關連交易的總金額而言，核數師並無注意到任何事項令他們相信該等已披露的持續關連交易的金額超出本公司就上述每項已披露的持續關連交易設定的年度上限。



## Directors' Report (Continued)

### 董事會報告(續)

#### RELATED PARTY TRANSACTIONS

Please refer to note 43 to the consolidated financial statements in this annual report for details of the significant related party transactions pursuant to IFRSs. For the connected transactions and continuing connected transactions pursuant to the requirements of the Listing Rules, please refer to the disclosure as set out in the above section headed "Connected Transactions" in this report of Directors. Except for those disclosed in the section headed "Connected Transactions" in this report of Directors, the other related party transactions as disclosed in note 43 are not considered as connected transactions. The Company has complied with the disclosure requirements under Chapter 14A of the Listing Rules.

#### AUDIT COMMITTEE AND REVIEW OF FINANCIAL STATEMENTS

The Company established the Audit Committee with written terms of reference in compliance with the CG Code. As at the date of this annual report, the Audit Committee comprises three members, namely Dr. Xie Guozhong, Mr. Liu Genyu and Mr. Zheng Tony Tuo. Dr. Xie Guozhong is the chairman of the Audit Committee.

The Audit Committee has reviewed the audited financial statements of the Group for the 2022 Financial Year. The Audit Committee has also discussed matters with respect to the accounting policies and practices adopted by the Company and the internal control with senior management members and the external auditor of the Company, Ernst & Young. Based on this review and discussion with the management, the Audit Committee was satisfied that the Group's audited consolidated financial statements were prepared in accordance with accounting standards and fairly present the Group's financial position and results for the 2022 Financial Year.

#### 關連方交易

有關國際財務報告準則項下重大關連方交易的詳情，請參閱本年報綜合財務報表附註43。有關上市規則規定項下的關連交易及持續關連交易的詳情，請參閱本董事會報告「關連交易」一節所載披露。除本董事會報告「關連交易」一節所披露者外，附註43所披露的其他關連方交易並不被視作關連交易。本公司已遵守上市規則第14A章的披露規定。

#### 審核委員會及審閱財務報表

本公司已成立審核委員會，並已遵照企業管治守則制定其書面職權範圍。於本年報日期，審核委員會由三名成員組成，即謝國忠博士、劉根鈺先生及鄭拓先生。謝國忠博士為審核委員會主席。

審核委員會已審閱本集團2022財政年度的經審核財務報表。審核委員會亦已就本公司所採納會計政策及實務以及內部控制有關的事宜與高級管理層成員及本公司外部核數師安永會計師事務所展開討論。基於是次審閱及與管理層展開的討論，審核委員會信納，本集團的經審核綜合財務報表乃根據會計準則編製及公允地反映本集團於2022財政年度的財務狀況及業績。

**Directors' Report (Continued)****董事會報告(續)****COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE**

The Company is committed to maintaining high standards of corporate governance to safeguard the interests of shareholders and to enhance corporate value and accountability. The Board has adopted the principles and the code provisions of the Corporate Governance Code contained in Appendix 14 to Listing Rules to ensure that the Company's business activities and decision making processes are regulated in a proper and prudent manner.

Saved as disclosed in this annual report, the Company had complied with the code provisions as set out in the CG Code during the Reporting Period. The Company will continue to review and enhance its corporate governance practice to ensure compliance with the CG code.

**SUFFICIENCY OF PUBLIC FLOAT**

Based on information publicly available to the Company and to the knowledge of the Directors, at least 25% of the Company's total issued share capital, the prescribed minimum percentage of public float approved by the Stock Exchange and permitted under the Listing Rules, are held by the public at all times as of the date of this report.

**AUDITOR**

The consolidated financial statements for the year ended 31 December 2022 have been audited by Ernst & Young, Certified Public Accountants. Ernst & Young will retire at the conclusion of the forthcoming AGM. A resolution for the re-appointment of Ernst & Young as the Company's auditor will be proposed at the forthcoming AGM.

Deloitte Touche Tohmatsu, the former auditor of the Company was not re-appointed by the shareholders of the Company after its retirement from the conclusion of 2020 AGM.

**MATERIAL LEGAL PROCEEDINGS**

The Group was not involved in any material legal proceeding during the year ended 31 December 2022.

**遵守企業管治守則**

本公司致力維持高水平的企業管治，以保障股東利益及提升企業價值及問責性。董事會已採納上市規則附錄十四所載的企業管治守則的原則及守則條文，以確保本公司的業務活動及決策過程受到恰當及審慎規管。

除本年報披露者外，本公司於報告期間一直遵守企業管治守則所載的守則條文。本公司將繼續檢討並提升其企業管治常規，以確保遵守企業管治守則。

**足夠的公眾持股量**

根據本公司公開可得的資料及就董事所知，截至本報告日期，公眾一直持有本公司全部已發行股本的至少25%（聯交所批准及上市規則准許的規定最低公眾持股量）。

**核數師**

截至2022年12月31日止年度的綜合財務報表由執業會計師安永會計師事務所審核。安永會計師事務所將於應屆股東週年大會結束時退任。在應屆股東週年大會上將提呈決議案，以重新委任安永會計師事務所為本公司核數師。

本公司前任核數師德勤•關黃陳方會計師行於2020年股東週年大會結束時退任後，並無獲本公司股東重新委任。

**重大法律訴訟**

本集團於截至2022年12月31日止年度並無涉及任何重大法律訴訟。

## Directors' Report (Continued)

### 董事會報告(續)

#### COMPLIANCE WITH LAWS AND REGULATIONS

For the year ended 31 December 2022, the Company has been in compliance with the relevant laws and regulations that have a significant impact on the Company.

#### ENVIRONMENTAL POLICIES AND PERFORMANCE

As an environmental protection service provider, the Group strictly abides by the laws and regulations relating to its business, including provision of services of environment protection and energy conservation, inspection of the pollutants and flue gas generated by coal-fired power plants. The Group is committed to protecting the environment and giving back to community and achieving sustainable growth. The achievements of the Group are based on constructing the mutual beneficial relations with our clients and employees and maintaining coexistence with ecological and social environment. The Group will continue to commit to its social responsibilities and exert its advantages as an environmental protection enterprise and make consistent efforts to forage an environment with blue sky and white clouds.

Details of the environment, social responsibilities and governance of the Company are set out in the ESG Report in this annual report.

#### ANNUAL GENERAL MEETING

The AGM will to be held on Wednesday, 31 May 2023. A notice convening the AGM will be published and dispatched to the shareholders of the Company in the manner required by the Listing Rules in due course.

#### 遵守法律及法規

截至2022年12月31日止年度，本公司已遵守對本公司有重大影響的相關法律及法規。

#### 環保政策及績效

作為環保服務提供商，本集團嚴格遵守與其業務有關的法律法規，包括有關提供環保及節能服務、監測燃煤發電廠產生的污染物及煙氣的法律法規。本集團致力於保護環境、回饋社會及實現可持續發展。本集團取得的成就離不開與客戶及員工建立互利關係，以及保持生態環境及社會環境的和諧共存。本集團將繼續履行其社會責任，發揮環保企業的優勢，為打造藍天白雲的美好環境不懈努力。

有關本公司的環境、社會責任及管治的詳情載列於本年報的環境、社會及管治報告內。

#### 股東週年大會

股東週年大會將於2023年5月31日(星期三)舉行。召開股東週年大會的通告將按上市規則的規定適時刊發及寄送予本公司股東。

**Directors' Report (Continued)****董事會報告 (續)****CLOSURE OF REGISTER OF MEMBERS**

In order to determine the entitlement to attend and vote at the AGM, the register of members will be closed from Thursday, 25 May 2023 to Wednesday, 31 May 2023, both dates inclusive, during which period no transfer of share will be effected. In order to be eligible to attend and vote at the AGM, all transfer documents accompanied by the relevant share certificates must be lodged with the Company's share registrar and transfer office in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong for registration not later than 4:30 pm on Wednesday, 24 May 2023. The record date for such purpose is Wednesday, 31 May 2023.

In order to determine the entitlement to the proposed final dividend for the year ended 31 December 2022, the transfer books and register of members of the Company will be closed from Monday, 19 June 2023 to Wednesday, 21 June 2023, both days inclusive. During the above period, no transfer of shares will be registered. In order to qualify for the entitlement to the proposed final dividend, all transfer documents accompanied by the relevant share certificates must be lodged with the Company's branch share registrar and transfer office in Hong Kong, Tricor Investor Services Limited, at 17/F, Far East Finance Centre, 16 Harcourt Road, Hong Kong before 4:30 p.m. on Friday, 16 June 2023.

On behalf of the Board

**Zeng Zhijun**

*Chairman*

Hong Kong, 24 March 2023

**暫停辦理股份過戶登記**

為釐定出席股東週年大會及於會上投票的資格，將於2023年5月25日(星期四)至2023年5月31日(星期三)(包括首尾兩日)期間內暫停辦理股份過戶登記手續，期間將不會辦理任何股份過戶登記。為符合資格出席股東週年大會及於會上投票，所有股份過戶文件連同有關股票必須於2023年5月24日(星期三)下午四時三十分前，送交本公司的香港股份過戶登記分處卓佳證券登記有限公司(地址為香港夏愨道16號遠東金融中心17樓)進行登記。有關上述事項的記錄日期為2023年5月31日(星期三)。

為釐定收取截至2022年12月31日止年度建議末期股息的資格，本公司股東名冊的過戶及登記將於2023年6月19日(星期一)至2023年6月21日(星期三)期間暫停辦理(包括首尾兩日)。於上述期間，不會辦理股份過戶手續。為符合資格收取建議末期股息，所有過戶文件連同相關股票必須於2023年6月16日(星期五)下午四時三十分前，送交本公司的香港股份過戶登記分處卓佳證券登記有限公司(地址為香港夏愨道16號遠東金融中心17樓)進行登記。

代表董事會

**董事長**

**曾之俊**

香港，2023年3月24日



## Human Resources

### 人力資源

#### PROFILE OF HUMAN RESOURCES

As of 31 December 2022, the Group had 1,459 employees in total, most of whom were based in the PRC. The Group has established independent labor union branches. Currently, the Group has entered into employment agreements with all employees, which specify the position, duties, remuneration, employment benefits, training, confidentiality obligations relating to trade secrets, grounds for termination and other aspects pursuant to PRC Labor Law and other relevant regulations.

The table below sets forth the number of employees as of 31 December 2022 categorised by their functions:

Function	職能	Number of employees 僱員人數	Percentage of the total number of employees 人數百分比
Concession operation management personnel	特許經營管理人員	95	6.51%
Engineering and technical personnel	工程技術人員	141	9.67%
Sales personnel	銷售人員	37	2.54%
Research and development personnel	研發人員	67	4.59%
Administrative and management personnel	行政管理人員	38	2.60%
Manufacture personnel	生產人員	1,081	74.09%
Total	總計	1,459	100%

#### EMPLOYEE INCENTIVE

Guided by business strategies and annual business targets, the Company adheres to the concept of “service builds trust, and professionalism creates value”. Taking a customer-oriented approach, the Company strives to meet the ecological, green and environmental protection needs of customers in an all-round way. Through the management policy of “emphasizing on authorization from management, strict assessment and incentive schemes”, we can stimulate the vitality of the team and create value for the corporate.

#### 人力資源情況

於2022年12月31日，我們共聘用1,459名僱員，其中絕大多數僱員常駐中國。本集團設有獨立工會分支。目前，本集團已與全部員工訂立了勞動合同，按照中國勞動法和其他相關法規的規定，明確約定了僱員的職位、職責、薪酬、員工福利、培訓、有關商業秘密的保密責任及終止理由等事項。

下表列示於2022年12月31日按職能劃分的員工人數：

#### 員工激勵

本公司以經營戰略和年度經營目標為指導，秉承「服務建立信任、專業創造價值」的理念，以客戶為中心，滿足客戶全方位的生態綠色環保需求。通過「高授權、嚴考核、重激勵」的管理方針，激發團隊活力，為企業創造價值。

## Human Resources (Continued)

### 人力資源 (續)

During the Reporting Period, the Company implemented a responsibility system on operation and management targets. Based on the work performance of managers and employees at all levels, we have established a comprehensive assessment system and incentive mechanism with the concept of core assessment which is objective, fair, open and standardized. Focusing on performance and results and through reward schemes such as profit sharing, we stimulate the ability of employees to create efficiency and encourage each business center to achieve business indicators and fulfill the requirements relating to risk management. We have increased the incentives for the marketing team to maintain the stable development of the flue gas market, as well as actively develop new businesses and seek new breakthroughs. Through reasonable planning of organizational structure and implementation of training plans, we improve the development path of employees, promote the construction of talent echelons, fully stimulate employees' enthusiasm for work and guide employees to create efficiency and excellence, so as to improve the overall profitability of the Group.

#### THE EMPLOYEES REMUNERATION POLICY

The remuneration package of the employees includes salaries, bonuses and allowances. Our employees are also entitled to supplementary medical provision, transportation allowances, meal allowances, communication subsidies and other benefits. During the Reporting Period, the Company carried out performance appraisals of employees at all levels, and have implemented a performance-based salary system in the positions of management, project managers, sales directors and authorized legal representatives. We have promoted the realization of business indicators through the evaluation, reward and punishment mechanism based on responsibilities and rights and the staged performance review mechanism. The appraisal results are linked to performance-based remuneration and annual performance bonus. Taking into account of the characteristics of different business segments, the Company has established, improved and implemented various reward systems. By actively promoting the excess profit sharing mechanism, we has encouraged management team and employees to exert their subjective initiative to create greater efficiency for the Company.

於報告期內，實行經營管理目標責任制，以各級管理人員及員工的工作業績為考核基礎，以客觀、公正、公開、規範為核心考核理念，建立完善考核體系與激勵機制；以績效結果為導向，通過利潤分享等獎勵方式，激發員工創效能力，激勵各業務中心達成經營指標並落實管理紅線要求；加大對市場團隊的激勵，保持煙氣市場穩定發展的同時，積極開拓新業務取得新突破；通過合理規劃組織架構及落實培訓計劃，完善員工發展路徑，促進人才梯隊建設，充分激發員工工作熱情，引導員工創效創優，提升集團公司整體盈利水平。

#### 員工薪酬政策

我們員工的薪酬組合包括薪金、獎金、津貼。我們的員工亦享有補充醫療、交通補貼、午餐補貼、通訊補貼及其他福利費。於報告期內我們推行全員業績考核，在管理層、項目經理、銷售總監、特許法代崗位執行績效工資制，通過責權利相結合的考評獎懲機制與階段性績效回顧機制，促進經營指標實現；考核結果與績效薪資、年度績效獎金掛鉤；結合不同業務板塊特點，建立完善各類獎勵制度並實施；積極推進超額利潤共享機制，鼓勵管理團隊及員工發揮主觀能動性，為公司創造更好的效益。

## Human Resources (Continued)

### 人力資源(續)

During the Reporting Period, pursuant to applicable PRC laws and regulations, the Group has contributed to social insurance funds (including pension plans, basic medical insurance, employment injury insurance, unemployment insurance and maternity insurance) and housing provident funds for all employees.

### TRAINING FOR EMPLOYEES

In 2022, the Group focused on the cultivation of management ideas and the enhancement of professional skills to promote the healthy and orderly development of all business segments of the Group. During the year, the Group paid more attention to the training of the Company's management personnel and business supporting personnel. Through the transmission of our business philosophy, we will manage our operations in an all-round way from the perspective of an operator of the Company, and improve output value, enhance profit and reduce cost through training in business management. We will enable the managers at all levels cultivate and establish the basic concept of operation to enhance their capabilities from the management dimension to the operation dimension, thus finally ensuring the precise implementation of various tasks.

### PROTECTION OF THE EMPLOYEES' RIGHTS

During the Reporting Period, the Group complied with the Labour Law of PRC and the Labour Contract Law of PRC in all material respects, including making contributions to the Social Insurance Fund and Housing Provident Fund for its employees, among which the social insurance includes basic pension insurance, basic medical insurance, employment injury insurance, unemployment insurance and maternity insurance.

於報告期內，我們已按中國法律法規要求為員工繳納社保基金(包括養老保險、基本醫療保險、工傷保險、失業保險及生育保險)及住房公積金。

### 員工培訓

本集團於2022年度專注管理思維培養及專業技能提升，推動集團各業務板塊健康有序發展。本年度更加重視公司管理人員及業務骨幹人員培訓，通過經營理念傳遞，立足於公司經營者的視角做好全方面管理；通過經營管理方面培訓提高產值、利潤、降低成本；使各級管理者培養和建立經營者基礎思維，從管理維度上升到經營維度，最終保證各項工作精準落實。

### 員工權利保障

在報告期內，本集團於所有重大方面均遵守中國勞動法和中國勞動合同法，包括為員工繳納了社會保險及住房公積金，其中社會保險包括基本養老保險、基本醫療保險、工傷保險、失業保險及生育保險。

# ESG Report

## 環境、社會及管治報告

### 1. ABOUT THE ESG REPORT

This report is an environmental, social and governance report (hereinafter referred to as “**ESG Report**” or “**this report**”) issued by China Boqi Environmental (Holding) Co., Ltd. (hereinafter referred to as the “**Group**”, “**Boqi Environmental**” or “**us**”). The purpose of this report is to outline the principles and sustainable development concepts that the Group upheld in fulfilling its corporate social responsibility in 2022, the challenges it faced, and to put forward a vision and commitment to corporate social responsibility.

#### 1.1. Standard of reporting

This report has been prepared in accordance with the Environmental, Social and Governance Reporting Guide (hereinafter referred to as the “**Guide**”) in Appendix 27 to the Rules Governing the Listing of Securities (the “**Listing Rules**”) on the Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”). This report has complied with all the “comply or explain” provisions in the Guide, and contents covered also align with the requirements of “materiality”, “quantitative”, “balance” and “consistency” in the Guide.

**Materiality:** The materiality of the Group’s ESG issues is determined by the board of directors (the “**Board**”). The communication with stakeholders and the process and matrix of identification of material issues are disclosed in this report.

**Quantitative:** Statistical standards, methods, assumptions and/or calculation tools for quantitative key performance indicators herein and source of conversion factors are all explained in the definitions of this report.

### 1. 關於環境、社會及管治報告

本報告為中國博奇環保(控股)有限公司(下稱「**本集團**」,「**博奇環保**」或者「**我們**」)所發佈的環境、社會及管治報告(下稱「**ESG報告**」或「**本報告**」)。報告旨在概述本集團2022年履行企業社會責任所秉持的原則及可持續發展理念,所面對的挑戰,並對企業社會責任提出願景和承諾。

#### 1.1. 報告標準

本報告的編撰按照香港聯合交易所有限公司(「**聯交所**」)的《香港聯合交易所有限公司證券上市規則》(「**上市規則**」)附錄二十七《環境、社會及管治報告指引》(下稱「**指引**」)編製而成,本報告已符合《指引》中「不遵守就解釋」,涵蓋內容亦符合《指引》中的「重要性」、「量化」、「平衡性」、「一致性」的要求。

**重要性:** 本集團ESG事宜重要性由董事會決定,本報告中披露了與利益相關者的溝通以及識別重大議題的過程和矩陣。

**量化:** 本報告中量化關鍵績效指標的標準、方法、假設和/或計算工具及和轉換因素的來源,均在報告釋義中進行說明。





## ESG Report (Continued)

### 環境、社會及管治報告(續)

**Balance:** This report presents the environmental, social, and governance performance of the Group during the Reporting Period in an impartial manner, and the presentation has avoided selection and omission, so as to avoid undue influence on the decision or judgment by the readers of this report.

**Consistency:** The statistical methodologies and standards applied to the data disclosed in this report shall be consistent with the previous year unless otherwise specified.

**平衡性：**本報告不偏不倚地呈報本集團在報告期內的環境、社會和管治表現，避免選擇、遺漏表述方式，以避免可能不適當地影響報告讀者的決定或判斷。

**一致性：**本報告中披露的數據所採用的統計方法和標準，除非另有說明，均與往年保持一致。

#### 1.2. Scope of report

Unless otherwise specified, this report covers the overall sustainability performance of the business directly controlled by the Group from 1 January 2022 to 31 December 2022 (hereinafter referred to as the “Year” or “Reporting Period”). The environmental data disclosed in this report were collected from the Group’s flue gas treatment projects, water treatment projects, hazardous and solid waste treatment/disposal projects, dual-carbon energy saving projects and offices in the PRC<sup>1</sup>. For detailed information on the corporate governance of the Group, please refer to the “Corporate Governance Report” section of our annual report or visit the official website of the Group (<http://www.chinaboqi.com/>).

#### 1.3. Approval of the report

This report was approved by the board of directors on 24 March 2022 after being confirmed by the management.

#### 1.4. Feedback on the report

We attach great importance to your views on this report. If you have any enquiries or suggestions, please feel free to contact us via the email address, [irhk@chinaboqi.com](mailto:irhk@chinaboqi.com).

#### 1.2. 報告範圍

除特別註明外，本報告涵蓋本集團直接控制的業務於2022年1月1日至2022年12月31日(下稱「本年度」或「報告期」)期間有關可持續發展的整體表現。本集團所披露的環境範疇數據的收集範圍為本集團在中國的煙氣治理項目、水處理項目、危固廢處理處置項目、雙碳節能項目及辦公室<sup>1</sup>。有關本集團企業管治的詳細信息，請參閱我們年報「企業管治報告」之章節及本集團官方網站(<http://www.chinaboqi.com/>)。

#### 1.3. 報告批准

本報告經管理層確認後，於2023年3月24日獲董事會通過。

#### 1.4. 報告反饋

我們非常重視您對此報告的看法，若閣下有任何查詢或建議，歡迎以電郵形式發送至以下郵箱([irhk@chinaboqi.com](mailto:irhk@chinaboqi.com))。

<sup>1</sup> Since the Group’s hazardous and solid waste treatment/disposal projects and dual-carbon energy saving projects were in stable operation during the Reporting Period, the scope of data collection in the environmental field has increased accordingly.

<sup>1</sup> 由於報告期內，集團危固廢處理處置項目和雙碳節能項目均已穩定運營，因此環境範疇數據收集範圍相應增加。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

## 2. STRATEGY ON ENVIRONMENT, SOCIAL AND GOVERNANCE

The Group has always adhered to the concept of “let all people live under the blue sky and white clouds”, and is committed to becoming a world-class comprehensive environmental industry group and a smart environmental management service provider. As a green ecological governance enterprise, the Group mainly provide comprehensive services comprising flue gas treatment, water treatment, hazardous and solid waste treatment/disposal and dual-carbon energy saving and new energy\* to industrial enterprises (including electricity, steel and coaling plants) through a variety of business models such as environmental protection facility engineering (EPC), operation and maintenance (O&M) and concession operations (BOT), so as to meet customers' all-round ecological green environmental protection needs. The Group has actively integrated ESG concepts into its overall development strategy and strives to fulfil its corporate social responsibilities.

### 2.1. Statement of the Board

In order to strengthen the management of the Group's environmental, social and governance and promote the Group's sustainable development, we have established an ESG working group. The Board is responsible for overall supervision of the sustainable development of the entire Group, and regularly discusses, reviews and approves the Group's ESG management policies, strategies, risks and opportunities. Under the authority of the Board, the ESG working group conducted a materiality assessment during the Reporting Period to prioritize major ESG issues in order to establish effective ESG management policies, strategies and targets. At the same time, we have identified and assessed ESG risks that may have a significant impact on us, including climate risks, and have developed relevant measures to manage these risks. During the Year, the Board has reviewed the ESG environmental goals set last year, and promised to continue to monitor the progress of the goals in the future and formulate corresponding measures whenever appropriate to promote the Group's objective of sustainable development.

## 2. 環境、社會及管治策略

本集團始終秉持「讓所有人生活在藍天白雲之下」的理念，致力成為國際一流的綜合性環境產業集團和智慧環境管家服務商。我們主要向工業企業（電力、鋼鐵及焦化等）及城市通過環保設施工程(EPC)、運營與維護（運維）和特許經營(BOT)等多種業務模式，提供煙氣治理、水處理、危固廢處理處置、雙碳節能及新能源+綜合服務的綠色生態治理企業，滿足客戶全方位的生態綠色環保需求。本集團積極將ESG理念全面融入到整體發展戰略中，積極履行企業社會責任。

### 2.1. 董事會聲明

為了加強本集團的環境、社會和管治方面的管理，促進本集團的可持續發展，我們已設立本集團的ESG工作小組。董事會負責全面監管整集團的可持續發展工作事宜，並定期討論、檢討及審批本集團的ESG的管理方針、策略、風險及機遇。在董事會授權下，ESG工作小組於報告期內進行了重要性評估，以確定優先處理重大的ESG議題，以便建立有效的ESG管理方針、策略和目標。同時，我們已識別及評估可能對我們產生重大影響的ESG風險，包括氣候風險，並制定相關的應對措施，以管理這些風險。本年度，董事會已審視去年訂立的ESG環境目標，並承諾日後將持續監察目標進程，在適當時候制定相應措施，以推進本集團實現可持續發展的目標。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 2.2. ESG governance structure

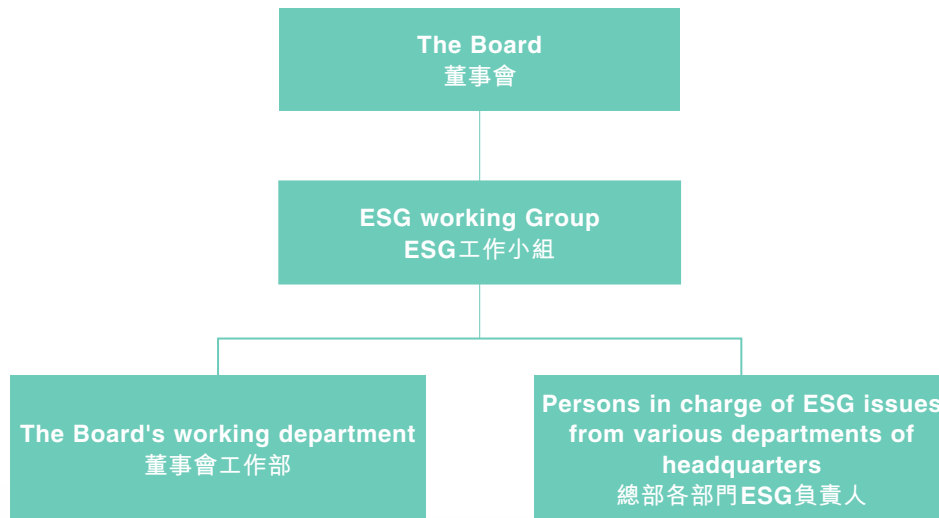
As the highest governance level of the Group's ESG governance structure, the Board is ultimately responsible for ESG governance strategies and reporting. The responsibilities of the Board include, among others, assessing and determining ESG risks relating to the Group, ensuring that we have established effective ESG risk management and internal control systems, regularly reviewing our ESG performance and approving ESG-related information disclosure.

The ESG working group is composed of the Board's working department and personnel in charge of ESG issues from various departments. The ESG working group needs to report ESG-related matters to the Board on a regular basis. Its specific responsibilities include: assisting the Board to perform ESG management obligations in accordance with applicable laws, fulfill ESG management obligations as permitted by the Group's articles of associations and Board policies; reviewing major ESG issues and making recommendations to the Board; formulating ESG development strategies, guidelines, phased targets and key tasks and advising the Board on strategies for the integration of ESG into corporate development; and assisting the Board to monitor and manage ESG risk control and to achieve related targets.

#### 2.2. ESG管治架構

董事會作為本集團的ESG管治架構的最高管治層，對ESG管治策略及匯報承擔最終責任。董事會的職責包括評估及釐定本集團有關的ESG風險，確保我們有效的ESG風險管理和內部監控系統，定期檢討我們的ESG表現，以及審批ESG相關的信息披露等。

ESG工作小組由董事會工作部及各部門的ESG負責人所組成，ESG工作小組需定期向董事會匯報ESG有關事項，具體負責內容如：協助董事會在遵守適用法律、本集團的章程以及董事會政策和許可的情況下履行ESG管理義務；審查ESG重要議題並向董事會提出建議；制定ESG發展戰略、指導方針、階段性目標和關鍵任務，並就將ESG納入企業發展的戰略向董事會提供建議；協助董事會監督和管理ESG風險控制和目標的實現。



ESG管治架構  
ESG Governance Structure

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 2.3. Engagement of stakeholders

The Group attaches great importance to the feedback from various stakeholders on its sustainable business. Through the establishment of diversified communication channels, the Group fully understands and addresses the concerns of various stakeholders, and formulates short-term and long-term sustainable development policies for the Group. The Group's stakeholders include shareholders/investors, business partners/industry peers, employees, customers, suppliers, regulators, community/non-governmental organizations and media.

#### 2.3. 利益相關者參與

本集團重視各利益相關者對其可持續發展業務的反饋意見，本集團透過建立多種溝通渠道，充分了解及解決各利益相關者的關注範疇，並制定本集團的短期和長期可持續發展政策。本集團的利益相關者包括股東／投資者、業務夥伴／同業、員工、客戶、供應商、監管機構、社區／非政府團體、傳媒。

Stakeholders 利益相關者	Main concerns and expectations 主要關注與期望	Main communication channels 主要溝通渠道
Shareholders/ investors 股東／投資者	<ul style="list-style-type: none"> <li>• Sound compliance operation 穩健合規運營</li> <li>• Good return on investment 良好投資回報</li> </ul>	<ul style="list-style-type: none"> <li>• Annual general meeting and other general meetings 股東週年大會與其他股東大會</li> <li>• Corporate communications, such as letter/circular and notice of meeting to shareholders 企業通訊，如致股東信件／通函及會議通知</li> <li>• Interim report and annual report 中期報告與年報</li> <li>• Investor hotline 投資者熱線</li> <li>• Results announcement 業績公佈</li> <li>• Meeting of senior management 高級管理人員會議</li> <li>• Conference 會議</li> </ul>

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Stakeholders 利益相關者	Main concerns and expectations 主要關注與期望	Main communication channels 主要溝通渠道
<b>Business partners/ industry peers</b> 業務夥伴／同業	<ul style="list-style-type: none"> <li>Exchanges and communication 交流與溝通</li> <li>Mutual development 共同發展</li> </ul>	<ul style="list-style-type: none"> <li>Group announcement 集團通告</li> <li>Conference 會議</li> <li>Visit 探訪</li> <li>Seminar 講座</li> </ul>
<b>Employees</b> 員工	<ul style="list-style-type: none"> <li>Optimization of working environment 優化工作環境</li> <li>Reasonable welfare package 合理福利待遇</li> </ul>	<ul style="list-style-type: none"> <li>Employee opinion survey 員工意見調查</li> <li>Channels for employees to express their opinions (forms, suggestion boxes, etc.) 員工表達意見的渠道(表格、意見箱等)</li> <li>Special advisory committee/thematic discussion group 特別諮詢委員會／專題討論小組</li> <li>Symposium/workshop/seminar 研討會／工作坊／講座</li> <li>Performance appraisal and interview 工作表現評核及晤談</li> <li>Group discussion 小組討論</li> <li>Meeting and interview 會議面談</li> <li>Business presentation 業務簡報</li> <li>Volunteer activities 義工活動</li> <li>Staff intranet 員工內聯網</li> </ul>

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Stakeholders 利益相關者	Main concerns and expectations 主要關注與期望	Main communication channels 主要溝通渠道
<b>Customers</b> 客戶	<ul style="list-style-type: none"> <li>• Quality management and service 優質管理及服務</li> <li>• Privacy protection 隱私保護</li> </ul>	<ul style="list-style-type: none"> <li>• Publication (such as employee newsletter) 刊物(如員工通訊)</li> <li>• Staff meeting 員工溝通大會</li> <li>• Staff intranet 員工內聯網</li> <li>• Customer satisfaction survey and feedback 客戶滿意度調查和意見表</li> <li>• Visit by customer relationship manager 客戶關係經理探訪</li> <li>• Daily operation/communication 日常營運／交流</li> <li>• Online service platform 網上服務平台</li> <li>• Customer advisory group 客戶諮詢小組</li> <li>• Customer service center 客戶服務中心</li> <li>• Telephone call 電話</li> <li>• Mail 郵箱</li> </ul>



**ESG Report (Continued)**

## 環境、社會及管治報告(續)

<b>Stakeholders</b> 利益相關者	<b>Main concerns and expectations</b> 主要關注與期望	<b>Main communication channels</b> 主要溝通渠道
<b>Suppliers</b> 供應商	<ul style="list-style-type: none"> <li>Integrity and mutual benefit 誠信互惠</li> </ul>	<ul style="list-style-type: none"> <li>Evaluation system for suppliers/contractors 供應商／承辦商評估制度</li> <li>Management procedures on suppliers 供應商管理程序</li> <li>On-site inspection 實地視察</li> <li>Conference 會議</li> <li>Supplier satisfaction survey 供應商滿意度調查</li> </ul>
<b>Regulators</b> 監管機構	<ul style="list-style-type: none"> <li>Environmental compliance 環保合規</li> </ul>	<ul style="list-style-type: none"> <li>Written response to public consultation 對公眾諮詢的書面回應</li> <li>Compliance report 合規報告</li> </ul>
<b>Community/ non-governmental organizations</b> 社區／非政府團體	<ul style="list-style-type: none"> <li>Supporting the livelihood of the community 支持社區民生</li> </ul>	<ul style="list-style-type: none"> <li>Donation 捐獻</li> <li>Conference 會議</li> </ul>
<b>Media</b> 傳媒	<ul style="list-style-type: none"> <li>Coordinating social relations 協調社會關係</li> </ul>	<ul style="list-style-type: none"> <li>Visit by senior management 高級管理人員訪問</li> <li>Press conference 新聞發佈會</li> <li>Results announcement 業績公佈</li> <li>Press release 新聞稿</li> </ul>

## ESG Report (Continued)

### 環境、社會及管治報告(續)

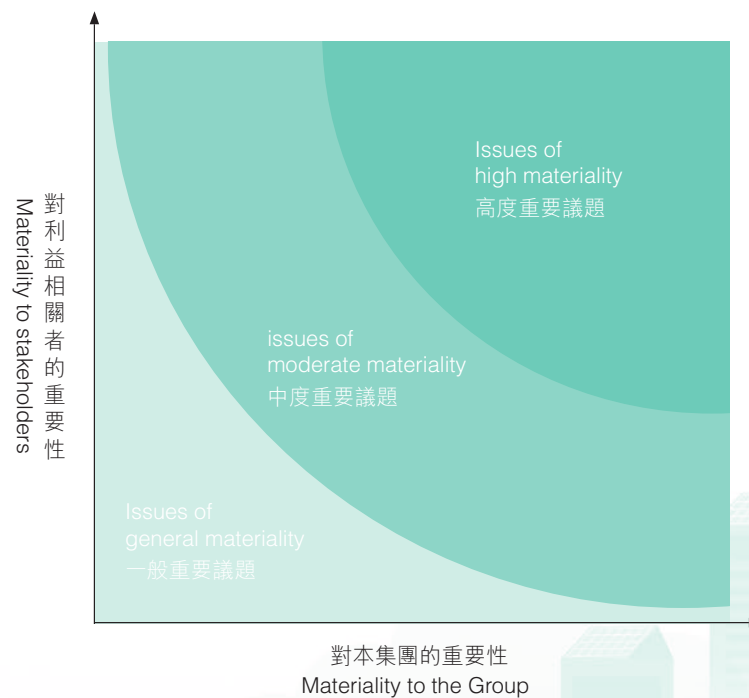
#### 2.4. Materiality assessment

Since the Group's strategic direction and the development of its business operation have not changed significantly during the Year, and considering the mutual importance and impact of various ESG issues on stakeholders, the Group's management and the ESG working group confirmed that the results for 2021 are still applicable to the situation during the Year. The Group has carried out the identification of material ESG issues with reference to the disclosure obligations covered by the Guide and the Database of Material Issues of the Sustainability Accounting Standards Board (SASB) of the United States, and with consideration of its own business conditions, the expectations and demands of various stakeholders and the actual situation of the Group. We eventually identified a total of 18 material issues, of which 10 were of high materiality, 6 were of moderate materiality and 2 were of general materiality.

#### 2.4. 重要性評估

由於本集團的策略方向及營運的業務發展於本年度沒有重大變化，綜合考慮各項ESG議題對持份者的相互重要性及影響，本集團的管理層及ESG工作小組確認2021年度的結果仍然適用於本年度的情況。本集團參考《指引》所涵蓋的披露責任及美國永續會計準則委員會(SASB)的《重要議題庫》、考慮自身業務狀況及各利益相關者的期望和訴求、以及本集團的實際情況進行ESG重要議題識別。最終，我們確認了共18項重要議題，當中10項為高度重要議題、6項為中度重要議題、2項為一般重要議題。

### ESG material issue matrix ESG重要議題矩陣





**ESG Report (Continued)**

## 環境、社會及管治報告(續)

<b>Issues of high materiality</b> 高度重要議題	<b>Issues of moderate materiality</b> 中度重要議題	<b>Issues of general materiality</b> 一般重要議題
Greenhouse gas emission and management 溫室氣體排放及管理	Energy management and energy saving 能源管理與節能	Customer service 客戶服務
Flue gas emission and management 廢氣排放及管理	Labor practice and rights protection 勞工慣例及權益保障	Community charity 社區公益慈善
Waste discharge and management 廢棄物排放及管理	Staff development and training 員工發展與培訓	
Water resources consumption 水資源消耗	Employment equality, diversity and inclusion 僱傭平等、多元化與包容	
Sewage treatment 污水處理	Planning for disaster and emergency measures 災難及應急預案規劃	
Employee health and safety 員工健康與安全	Procurement and supply chain management 採購及供應鏈管理	
Product soundness and safety 產品健康安全		
Product quality management 產品質量管理		
Anti-corruption 反貪污		
Compliance operation 合規運營		

## ESG Report (Continued)

### 環境、社會及管治報告(續)

### 3. GREEN OPERATION

Boqi Environmental strives to build a “environmental dual-carbon management” platform, and actively adjust its business structure, optimize its resource allocation and continuously expand its market share. Focusing on the development of multiple business segments such as flue gas treatment, water treatment, hazardous and solid waste treatment/disposal, dual-carbon energy saving and new energy, the Group will gradually develop into a world-class environmental industry group and actively participate in the construction of an ecologically civilized and beautiful China.

The Group strictly abides by relevant state and local laws and regulations such as the Environmental Protection Law of the People's Republic of China (中華人民共和國環境保護法), the Air Pollution Prevention and Control Law of the People's Republic of China (中華人民共和國大氣污染防治法), the Water Pollution Prevention and Control Law of the People's Republic of China (中華人民共和國水污染防治法), the Law of the People's Republic of China on the Prevention and Control of Pollution Caused by Solid Wastes (中華人民共和國固體廢物污染防治法), and the Energy Conservation Law of the People's Republic of China (中華人民共和國節約能源法), the Circular Economy Promotion Law of the People's Republic of China (中華人民共和國循環經濟促進法) and Beijing Municipal Regulations on the Management of Domestic Waste (北京市生活垃圾管理條例) in order to persist in the practice of the green culture. In the meantime, we have also formulated and implemented, among others, the Environmental Protection Management System, the Environmental Protection Supervision and Management System (Trial) and the Civilized Construction Management System, to continuously carry out landscaping and ecological and environmental construction in plant areas.

### 3. 綠色運營

博奇環保致力於打造「環保雙碳管理平台」，積極調整業務結構，優化資源分配，持續擴展市場份額。本集團將重點圍繞煙氣治理、水處理、危固廢處理處置、雙碳節能及新能源等多業務領域發展，逐步將本集團發展成為國際一流的環境產業集團，積極投身生態文明美麗中國建設。

本集團嚴格遵守《中華人民共和國環境保護法》、《中華人民共和國大氣污染防治法》、《中華人民共和國水污染防治法》、《中華人民共和國固體廢物污染防治法》、《中華人民共和國節約能源法》、《中華人民共和國循環經濟促進法》、《北京市生活垃圾管理條例》等國家及地方的相關法律法規，並制定及實施有關的環保管理條例，規範園區內持續開展綠化地帶和生態環境建設，堅持綠色文化。同時，我們亦制定和實施了《環保管理制度》、《環境保護監督管理制度(試行)》及《文明施工管理制度》，以持續在工廠範圍內建立景觀美化及保護生態環境建設。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

During the Year, neither did the Group violate any laws and regulations related to environmental protection policies or have any major environmental pollution incidents, nor did the Group receive any complaints or notice of penalties related to environmental pollution issues.

The Group has set environmental targets last year, aiming to maintain or reduce energy consumption, water resource utilization, greenhouse gas emissions and waste generation under similar business operation levels. Although the scope of the Group's environmental data collection has expanded during the Year, under the Group's efforts to implement energy-saving and emission-reduction measures, we have made certain preliminary progress on the environmental targets as compared with the data for 2021. In the future, we will continue to monitor our progress on the targets in order to implement our targeted energy-saving and emission-reduction measures.

#### 3.1. Emission

The Group is mainly engaged in environmental protection projects. By improving its level of scientific research and technology, the Group is committed to making contribution to the improvement of environmental pollution, the optimal utilization of resources and the protection of ecological environment and becoming an internationally recognized comprehensive environmental industry organization and a provider of intelligent environmental solutions.

本年度，本集團沒有違反任何與環境保護政策相關的法律法規、沒有發生重大環境污染事故、及沒有接收到任何有關環境污染問題的投訴或罰款。

本集團已於去年制定環境目標，旨在於類似業務運營水平下維持或減少能源使用、水資源使用、溫室氣體排放及廢棄物產生。儘管，本集團於本年度的環境數據收集範圍有所增加，在本集團努力實施的節能減排措施下，部份環境目標對標2021年數據經已得到初步進展。日後，我們會持續監察目標的進展，以實施針對性的節能減排措施。

#### 3.1. 排放物

本集團主要從事環保工程，致力通過提升科研及技術水準從而協助改善環境污染，優化資源使用及保護生態環境，並成為國際認可的綜合環境產業組織和智能環境解決方案的提供者。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.1.1. Greenhouse gas

In response to climate change, China has implemented a series of low-carbon economic policies such as the Energy Production and Consumption Revolution Strategy (2016-2030) (能源生產和消費革命戰略(2016-2030)), National Climate Change Adaptation Strategy (國家適應氣候變化戰略) and the 2020 Annual Report on China's Policies and Actions for Coping with Climate Changes (中國應對氣候變化的政策與行動 2020 年度報告). Actively responding to the carbon reduction policy of the state, the Group has conducted greenhouse gas emission survey for its flue gas treatment projects, water treatment projects, hazardous and solid waste treatment/disposal projects, dual-carbon energy saving projects and offices in Mainland China with reference to the Greenhouse Gas Protocol (溫室氣體盤查議定書) jointly developed by the World Resources Institute and the World Business Council for Sustainable Development and ISO 14064-1 formulated by the International Organization for Standardization. During the Year, the Group's greenhouse gas emissions performance was as follows:

#### 3.1.1. 溫室氣體

為應對氣候變化，國家已實施一系列低碳經濟方針，例如：《能源生產和消費革命戰略(2016-2030)》、《國家適應氣候變化戰略》及《中國應對氣候變化的政策與行動 2020 年度報告》等。本集團積極響應國家的減碳方針，在量化過程中參考由世界資源研究所與世界可持續發展工商理事會開發的《溫室氣體盤查議定書》及國際標準化組織制定的ISO14064-1，為本集團在中國內地的煙氣治理項目、水處理項目、危固廢處理處置項目、雙碳節能項目及辦公室進行盤查。本年度，本集團的溫室氣體排放表現如下：

Greenhouse gas emissions <sup>2</sup>	Unit	2021	2022
溫室氣體排放量 <sup>2</sup>	單位	2021年	2022年
Direct greenhouse gas emissions (Scope 1) 直接溫室氣體排放(範圍1)	Tonnes CO <sub>2</sub> equivalent 公噸二氧化碳當量	568.16	603.10
Indirect greenhouse gas emissions (Scope 2) 間接溫室氣體排放(範圍2)	Tonnes CO <sub>2</sub> equivalent 公噸二氧化碳當量	1,062,487.09	749,725.03
Total greenhouse gas emissions (Scope 1 and 2) 溫室氣體排放總量(範圍1及2)	Tonnes CO <sub>2</sub> equivalent 公噸二氧化碳當量	1,063,055.25	750,328.13
Greenhouse gas emissions intensity (Scope 1 and 2) 溫室氣體排放密度(範圍1及2)	Tonnes CO <sub>2</sub> equivalent/ten thousand of revenue 公噸二氧化碳當量/萬元營收	5.08	3.95

2 The greenhouse gas emissions of the Group in scope 1 and 2 were calculated with reference to "How to Prepare an ESG Report – Appendix 2: Reporting Guidance on Environmental KPIs" issued by the HKEX.

2 參考香港聯交所《如何準備環境、社會及管治報告 – 附錄二：環境關鍵績效指標匯報指引》來計算本集團的範圍1和範圍2的溫室氣體排放

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Scope 1: Direct greenhouse gas emissions from sources owned and controlled by the Group.

Scope 2: Greenhouse gas emissions indirectly generated during power generation, heating or cooling which were purchased by the Group.

The Group's greenhouse gas emissions mainly come from the fuel consumption of the Group's fixed equipment and motor vehicles registered under its name (Scope 1) and the power usage during business operations (Scope 2). During the Reporting Period, the total greenhouse gas emissions of the Group's flue gas treatment projects, water treatment projects, hazardous and solid waste treatment/disposal projects, dual-carbon energy saving projects and offices in Mainland China were 750,328.13 tonnes CO<sub>2</sub> equivalent, and the greenhouse gas emissions intensity was 3.95 tonnes CO<sub>2</sub> equivalent per ten thousand of revenue.

The Group has implemented relevant measures to reduce direct greenhouse gas emissions (Scope 1) due to the consumption of gasoline by motor vehicles in business operations. For instance, driving routes should be planned in advance to avoid fuel consumption due to repeated routes, vehicles should be turned off when idling, and regular vehicle inspections should be conducted to ensure engine performance and optimal fuel usage. In addition, the Group has taken measures to reduce energy consumption, and further details of such measures are set out in the section headed "3.2.1 Energy".

範圍1：由本集團自身擁有及控制的來源所產生的直接溫室氣體排放

範圍2：由本集團向外購入的發電、供熱或製冷期間所產生的間接溫室氣體排放

本集團的溫室氣體排放主要來自本集團的固定設備的燃料耗用及名下機動車的燃料耗用(範圍一)，以及在業務運營時的電力使用(範圍二)。於報告期內，本集團在中國內地的煙氣治理項目、水處理項目、危固廢處理處置項目、雙碳節能項目及辦公室的溫室氣體排放總量為750,328.13公噸二氧化碳當量，而溫室氣體排放密度則為每萬元營收3.95公噸二氧化碳當量。

本集團已實施相關措施以減少業務營運中因機動車耗用汽油而直接排放的溫室氣體(範圍一)，如：提前規劃行車路線，避免因路線重複導致燃料消耗、汽車處於空轉狀態時關掉引擎及定期為車輛檢查確保引擎性能及燃料使用優化等。此外，本集團已採取措施減少能源消耗，有關措施載於「3.2.1能源」一節。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.1.2. Flue gas treatment

The Group is one of the first batch of recognized high-tech enterprises in China and is among the first participants in the flue gas treatment industry. We are committed to providing desulfurization, denitrification, dust removal and comprehensive flue gas treatment services for power, steel, coking and other industries, contributing to reducing sulfur dioxide, nitrogen oxides and soot emitted into the atmosphere, as well as helping to improve productivity of customers. In order to improve the effect of the reduction of pollutant emission, we have continuously made improvements on technology, conducted independent research and development, carried out in-depth research and development on all aspects of flue gas pollution control and devoted ourselves to the development of new technologies with a view to introducing advanced technologies to China to meet for the ever changing market demands.

The advantages of the “ZFD Flue Gas Pollution Control Technology” independently developed by the Company are unparalleled. Our integrated flue gas treatment system, known as the “Green Island” which are combined with various flue gas pollution control technologies, has achieved an efficiency of 99.8% for SO<sub>2</sub> removal, 98% for NO<sub>x</sub> removal and an ultra-low emission level of 1mg/m<sup>3</sup> for dust removal, all adequately meeting the requirements of ultra-low emission technologies in China. Such technologies have been successfully applied to Nanshan Group Yili Power Plant, Shanghai Petrochemical Cogeneration, Hebei Jinxi Iron and Steel and other ultra-low emission projects.

#### 3.1.2. 煙氣治理

本集團是中國首批認定的高新技術企業，亦是中國煙氣處理行業的首批參與者。我們致力為電力、鋼鐵、焦化等多個行業提供脫硫、脫硝、除塵和綜合煙氣治理服務，為減少排放到大氣中的二氧化硫、氮氧化物和煙塵作出貢獻，同時有助提高客戶的生產效率。為了提高污染物減排的效果，我們不斷改進技術，進行自主研發，對煙氣污染控制的各個環節進行深入研究和開發，致力於新技術的開發，以滿足不斷變化的市場需求，將先進技術引入中國。

本集團的自主研發的「ZFD煙氣污染控制技術」的優勢是無可比擬的。與各類煙氣污染控制技術相結合而成的「環保島」綜合煙氣處理系統，達到了脫除二氧化硫效率達到99.8%、脫除氮氧化物效率達到98%、除塵排放達到1mg/m<sup>3</sup>的超低排放標準，均超過國家對超低排放技術的要求。並成功應用於南山集團怡力電廠、上海石化熱電聯產、河北津西鋼鐵等超低排放工程。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

During the Reporting Period, the major atmospheric emissions were discharged after desulfurization and denitrification treatment in our business operation (including concession operation projects) and the emission data is as follows:

於報告期內，本集團業務運營，包括特許經營項目經過脫硫、脫硝處理後的主要大氣排放物及排放的數據如下：

Atmospheric emissions 大氣排放物	Unit 單位	2021 2021年	2022 2022年
SO <sub>2</sub> 二氧化硫	Tonnes 噸	2,531.00	2,257.17
NO <sub>x</sub> 氮氧化物	Tonnes 噸	3,472.00	3,537.18

During the Year, Boqi Environmental won the “Influential Enterprise of Iron and Steel Flue Gas Treatment Award 2022” in the “Polaris Cup” Most Influential Flue Gas Treatment Enterprises Selection, in recognition of the the Group’s achievements in reducing sulfur dioxide, oxygenate and flue gas emissions.

本年度，博奇環保「北極星杯」煙氣治理影響力企業評選中，榮獲2022年度「鋼鐵煙氣治理影響力企業」獎項。以表揚本集團在過去一年為減少大氣中的二氧化硫、氮氧化物和煙氣的排放的成果。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Case study 案例

#### Commissioned Operation Project for the Gray Vulcanization Auxiliary Control System of Shouguang

##### 壽光灰硫化輔控系統委託運行項目

In 2022, the Group has been rated as an excellent contractor by the owner of the project for three consecutive years due to the operation of the project. The main work scope of the project includes: ash removal system, dust collector system, desulfurization system, preparation and supply system of denitrification of urea for public use, ash and gravel coal bunker equipment system, plant-wide rainwater system, fresh sea water intake system, chemical water treatment and regeneration system, plant-wide refrigeration system and external heating system, etc. The designed sulfur dioxide emission index for the project is  $35\text{mg}/\text{m}^3$ . After our operation, the sulfur dioxide emission index is far superior to the national emission standard, which not only marks the solid design level of the Group in flue gas treatment for thermal power industries, but also reflects the Group's advanced implementation and management level.

2022年，本集團因運行該項目已連續三年被業主評為優秀承包商，項目主要工作範圍包括：除灰系統、除塵器系統、脫硫系統、脫硝公用尿素制備供給系統、灰渣石子煤倉設備系統、全廠雨水系統、淡海水取水系統、化學水處理及再生系統、全廠製冷系統和對外供熱系統等。該項目設計二氧化硫排放指標為： $35\text{mg}/\text{m}^3$ 。經我方運營後，二氧化硫排放指標遠遠優於國家排放標準，這不光標誌着本集團在火電煙氣治理方面紮實的設計水平，同時更是體現出集團在後期運維方面先進的執行及管理水平。





## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.1.3. Water treatment

The Group is committed to assisting industrial enterprises in complying with increasingly stringent discharge regulations and improving the quality of the water environment. Accordingly, the Group's service business has gradually expanded to water treatment.

During the Reporting Period, the average discharge intensity of the main pollutants discharged from the Group's Lubao Industrial Park Wastewater Treatment Project after treatment are as follows:

#### 3.1.3. 水處理

本集團致力協助工業企業遵守日益嚴格的排放規則，改善水環境的質量。因此，本集團的服務業務已逐步擴大到包括水處理。

於報告期內，本集團的潞寶工業園區污水處理項目經過處理後的主要污染物排放物的平均排放濃度如下：

#### Environmental indicators of sewage

discharge 污水排放物環境指標	Unit 單位	2021 2021年	2022 2022年
Ammonia nitrogen 氨氮	mg/litre 毫克／升	2.17	1.74
Biochemical oxygen demand 生物需氧量	mg/litre 毫克／升	12.08	14.55
Chemical oxygen demand 化學需氧量	mg/litre 毫克／升	75.23	69.87
pH value 酸鹼值	-	7.69	7.48

#### Case 1 案例一

#### Lubao Sewage Treatment Center

##### 潞寶污水處理中心

During the Year, the Group's Lubao Sewage Treatment Center in Shanxi, China was operating stably, providing wastewater treatment services for various chemical companies in the park and ensuring the reuse of water resources. The water quality of the advanced treatment system, the circulating sewage treatment system and the intensified treatment system for concentrated wastewater of Lubao Sewage Treatment Center has reached the specified standards of the quality of recycled water used in circulating and cooling water stipulated in the "Design Specification for Sewage Recycling Engineering (GB50335-2016)", thereby realizing the reuse and resource utilization of reclaimed water and greatly saving the amount of fresh supplementary water for the park.

本年度，本集團位於中國山西的潞寶污水處理中心運行穩定，為園區內各化工企業提供廢水處理服務，保證園區水資源再利用。潞寶污水處理中心的深度處理系統、循環水排污水處理系統、濃水深度處理系統的產水水質達到《污水再生利用工程設計規範(GB50335-2016)》中規定的再生水利用到循環冷卻水中水質指標規範標準，實現了中水回用和資源化，很大程度上為園區節省了新鮮補充水水量。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.1.4. Waste treatment

The major non-hazardous waste generated by the Group is desulfurized gypsum and paper produced in the flue gas desulfurization process, and the hazardous waste generated is mainly waste catalyst produced in the flue gas denitrification process. We preferentially sell desulfurized gypsum to users who have the utilization ability to reuse. For the desulfurized gypsum that cannot be reused, it is used in the construction of storage and disposal sites that are constructed in accordance with the Standard for Pollution Control of General Industrial Solid Waste in Storage and Disposal Sites “一般工業固體廢物儲存、處置場所污染控制標準”.

At present, the Group has sold all the desulfurized gypsum generated from its concession operation projects to third parties for their comprehensive use in the cement plant additive materials and gypsum board processing industries. In addition, all hazardous waste is sent to professionally qualified recyclers for disposal after approval by relevant environmental protection departments of the projects.

During the Reporting Period, the total amount of non-hazardous waste generated by the Group was 3,258,025.46 tonnes<sup>3</sup>, with an intensity of 17.15 tonnes per ten thousand RMB of revenue, while the total amount of hazardous waste generated was 15,190.85 tonnes, with an intensity of 0.08 tonnes per ten thousand RMB of revenue. In the future, we will continue to monitor the amount of non-hazardous waste and hazardous waste generated by the Group in order to improve its measures on pollution prevention and control.

3 Due to the corresponding increase in the scope of data collection in the environmental field during the Reporting Period and the increase in the total operation period of the flue gas projects as compared with the same period last year, the total amount of non-hazardous waste generated has increased.

#### 3.1.4. 廢棄物處理

本集團的主要無害廢物是煙氣脫硫過程中產生的硫石膏及紙張，而其主要有害廢物是煙氣脫硝過程中產生的廢舊催化劑。我們優先將硫石膏出售給有可能再使用的用戶，而不能再使用的硫石膏會按照「一般工業固體廢物儲存、處置場所污染控制標準」建設處置場所作存置用途。

目前，本集團已將其特許經營項目產生的硫石膏全部出售給第三方，供其在水泥廠添加劑材料和石膏板加工行業中綜合使用。此外，全部的危害廢棄物則經由項目的環保局批准後，把其有害廢棄物送到具有專業資格的回收商進行處理。

於報告期內，本集團的無害廢棄物產生總量為3,258,025.46噸<sup>3</sup>，無害廢棄物產生的密度為17.15每萬元營收噸。而有害廢棄物產生總量則為15,190.85噸，密度為0.08每萬元營收噸。日後，我們會繼續監察本集團的無害廢棄物及害廢棄物產生，以完善污染物排放控制措施。

3 由於報告期內環境範疇數據收集範圍相應增加，且煙氣項目總運營期間較去年同期增長，因此導致無害廢棄物產生總量增長。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Case study 案例

#### Haixi Jingze Project

##### 海西景澤項目

Haixi Jingze is located in Yinmaxia Industrial Park, Xitieshan Town, Dachaidan, Haixi, Qinghai Province. It mainly carries out the collection and stable disposal of hazardous solid waste. It is the only rigid landfill in Qinghai Province so far, with a total planned area of 500 acres and a hazardous waste disposal capacity of approximately 90,000 tonnes per year.

The Group's Haixi Jingze Project has further promoted the Group's strategic transformation and business upgrade under the concept of "Carbon Peaking and Carbon Neutrality", and accelerated the Group's expansion of new business areas. Haixi Jingze is the Group's first equity merger and acquisition project. The acquisition of Haixi Jingze marked Boqi's solid step of expanding to the field of hazardous and solid waste treatment/disposal business, laying a solid foundation for our development of such business. The acquisition has accelerated the promotion of the new four-in-one development pattern of "gas, water, solid waste and dual-carbon new energy+" of the Group and enhanced the Group's core competitiveness and comprehensive strength.

海西景澤位於青海省海西州大柴旦錫鐵山鎮飲馬峽工業園區，主要開展固體危險廢棄物的收集與穩定化處置，是截至目前青海省唯一的一家剛性填埋場，總規畫面積500畝，危廢處置規模約9萬噸/年。

本集團的海西景澤項目，進一步促進了「碳达峰•碳中和」理念下本集團的戰略轉型和業務升級，加快了本集團的新業務領域的拓展。海西景澤是本集團第一個股權併購項目。海西景澤的收購標誌着博奇向危固廢處理處置業務領域邁向堅實性的步伐，為我們危固廢處理處置業務發展奠定了堅實的基礎，加快推動本集團「氣•水•固•雙碳新能源+」四位一體的新發展格局，增強了本集團的核心競爭力和綜合實力。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.2. Use of resources

The Group is committed to promoting the responsible use of natural resources and enhancing the efficiency of resource use in business operations by implementing comprehensive energy saving, energy consumption reduction and recycling measures. In addition, we have established a “small performance indicator on consumption planning” to monitor the consumption of resources used in project operation, such as power, limestone and liquid ammonia. A review meeting is held once a month and evaluation is carried out by relevant project department. Energy saving tasks are delegated to employees at all levels to ensure energy saving targets are met.

#### 3.2. 資源使用

本集團致力推行負責任地使用自然資源，並透過開展全面節能、降低能源消耗、及回收措施，以提升業務營運中的資源使用效益。此外，我們成立了「小型消耗計劃表現指標」，以監察項目的資源消耗，如電力、石灰石和液氨等，每月舉行一次檢討會，並由項目部進行評估，將節能任務下放到不同崗位的員工，以確保節能目標得以實現。



## ESG Report (Continued)

## 環境、社會及管治報告(續)

## 3.2.1. Energy

The energy consumed by the Group is mainly the fuel used by vehicles and equipment and the electricity power consumed during the operation of projects. During the Year, the total power consumption of the Group was 1,228,855,982.64 kWh, representing a total power consumption intensity of 6,466.82 kWh per ten thousand RMB of revenue.

## 3.2.1. 能源

本集團的能源消耗來源主要為車輛及設備所使用的燃料和營運項目期間所使用的電力。本年度，本集團的總耗電量為1,228,855,982.64千瓦時，即每萬元營收的總耗電密度為6,466.82千瓦時。

Types of energy 能源類型	Unit 單位	2021 2021年	2022 2022年
<b>Power</b>			
<b>電力</b>			
Power consumption in offices 辦公室耗電量	kWh 千瓦時	819,121.63	760,451.92
Power consumption for project operations 營運項目耗電量	kWh 千瓦時	1,740,677,505.50	1,228,095,530.72
• Flue gas treatment projects • 煙氣治理項目	kWh 千瓦時	1,730,658,429.50	1,203,108,005.12
• Sewage treatment projects • 污水處理項目	kWh 千瓦時	10,019,076.00	12,627,658.60
• Hazardous and solid waste treatment/disposal projects • 危固廢處理處置項目	kWh 千瓦時	–	494,247.00
• Dual-carbon energy saving projects • 雙碳節能項目	kWh 千瓦時	–	11,865,620.00
Total consumption 耗用總量	kWh 千瓦時	1,741,496,627.13	1,228,855,982.64
Consumption intensity 耗用密度	kWh/RMB ten thousand of revenue 千瓦時／人民幣萬元營收	8,324.55	6,466.82
<b>Fuel</b>			
<b>燃料</b>			
Gasoline consumption 汽油耗用量	Tonnes 噸	156.81	160.98
Gasoline consumption intensity 汽油耗用密度	Tonnes/RMB ten thousand of revenue 噸／人民幣萬元營收	0.00075	0.00085
Diesel consumption 柴油耗用量	Tonnes 噸	4.34	8.4
Diesel consumption intensity 柴油耗用密度	Tonnes/RMB ten thousand of revenue 噸／人民幣萬元營收	0.00002	0.00004

## ESG Report (Continued)

### 環境、社會及管治報告(續)

As mentioned above, the Group strictly abides by the codes of the state and relevant agencies on the use of energy. Meanwhile, we have formulated and implemented the Energy Saving and Consumption Reduction Management System, with the primary goal of minimizing energy consumption by establishing and improving energy-saving systems, upgrading existing equipment and promoting low-carbon life.

The Group has made energy-saving adjustments to the demister, and modified the cyclone blades on the intake side of the condensing and wet film layer of high-efficient demister of absorbing column; transformed some circulating pump motors into permanent magnet motors; carried out energy-saving adjustment to low-load and low-sulfur oxidation blowers; and applied the addition of synergists to projects, so as to further enhance the operating efficiency of power units and reduce the carbon footprint.

In addition, the Group has undertaken the BOT project of Tianjin Iron Works Co., Ltd's CDQ work, which includes three parts, namely coking CDQ, sintering 360m<sup>2</sup> waste heat power generation, and power steam turbine. By using CDQ technology, more than 80% of the sensible heat contained in red coke can be recovered for power generation which not only enhances energy efficiency, but also improves coke quality and productivity while avoiding pollution. The energy-saving service industry is increasingly important in the areas of conserving energy, improving energy efficiency and reducing carbon dioxide emissions, and has also made positive contributions to controlling smog and mitigating climate change. This is the first coke CDQ waste heat power generation unit (25MW) undertaken by the Group. The successful commissioning of this unit has laid a solid foundation for the Group's dual-carbon energy saving strategic layout.

如上文所提及，本集團嚴格遵守國家及相關機構在能源使用方面的守則。同時，我們制定並實施《節能降耗管理制度》，通過設立完善節能系統、升級原有設備、提倡低碳生活等，以盡量減少能源消耗為首要目標。

本集團對除霧器進行了節能調整，對吸收塔高效除霧器冷凝濕膜層進氣側的旋風葉片進行了改造；將部份循環泵電機改造為永磁電機；對低負荷、低硫氧化鼓風機進行了節能調整；在項目中增加增效劑，以進一步提高機組運行效率，減少碳足跡。

此外，本集團承運的天津鐵廠有限公司干熄焦工程BOT項目。項目包含焦化乾熄焦、燒結360m<sup>2</sup>餘熱發電、動力汽輪機三部份。通過使用乾熄焦技術，紅焦中含有的80%以上的顯熱可以被回收用於發電，不僅提高了能源效率，而且提高了焦炭質量和生產率，同時避免了污染。節能服務行業在節約能源、提高能效、減少二氧化碳排放方面越來越重要，也為控制霧霾和減緩氣候變化做出了積極貢獻。是本集團承運的第一台乾熄焦餘熱發電機組(25MW)，該機組的順利投產為本集團雙碳節能的戰略佈局打下了堅實的基礎。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

The Group's new office decoration design also caters to the needs of energy saving and pollution reduction. We choose energy-efficiency luminaires (such as T5 fluorescent lamps and light-emitting diodes) and electronic equipment with safety as priority, reduce the number of luminaires at places with low demand for brightness and use natural light during daytime as much as possible. We also avoid installing air conditioners at locations exposed in direct sunlight to prevent the sun from affecting the capacity of the air conditioner, and clean the luminaires and electrical filters regularly to maximize its energy efficiency. At the same time, we also remind employees to turn off lighting systems, air conditioners, electronic devices and electrical appliances when the office is not in use, and allow employees to dress in casual wear at work every Friday in order to reduce the use of air conditioners.

本集團的新辦公室裝飾設計亦迎合了節能和減少污染的需要。我們選用高能源效益的燈具(如T5熒光燈及發光二極管)及電子設備，並會以安全為首要，在低需求亮度的地方減少電燈數量，並盡量採用白天自然光；避免安裝空調於太陽光能直接照射的位置，以防日曬影響空調的負載力及定期清洗照明裝置、電器過濾網，盡量提高其能源效益。同時，我們亦提醒員工於不使用辦公室時關掉照明系統、空調、電子設備、電器及在炎熱天氣下及每星期五，容許員工穿着輕便便服上班，以減少使用空調。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.2.2. Water resources

The water resources consumed by the Group are mainly running water used in equipment cleaning, project operation and daily office work. We have not encountered any problems in the process of obtaining suitable water sources. During the Year, the total water consumption by the Group was 18,457,264.90 tonnes, representing a total water consumption intensity of 97.13 tonnes per ten thousand RMB of revenue.

#### 3.2.2. 水資源

本集團的水資源消耗來源主要為設備清洗、營運項目、辦公室日常生活使用的自來水。我們於求取適用水源過程中並沒有發現任何問題。本年度，本集團的總耗水量為18,457,264.90噸，即每萬元營收的總耗水密度為97.13噸。

Water resources consumption 水資源消耗	Unit 單位	2021 2021年	2022 2022年
Water consumption in offices 辦公室耗水量	Tonnes 噸	11,849.00	6,386.00
Water consumption for project operations 營運項目耗水量	Tonnes 噸	18,943,387.30	18,450,878.90
• Flue gas treatment projects • 煙氣治理項目	Tonnes 噸	16,830,664.30	15,682,338.90
• Sewage treatment projects • 污水處理項目	Tonnes 噸	2,112,723.00	2,063,936.00
• Hazardous and solid waste treatment/disposal projects • 危固廢處理處置項目	Tonnes 噸	–	10,754.00
• Dual-carbon energy saving • 雙碳節能	Tonnes 噸	–	693,850.00
Total consumption 耗用總量	Tonnes 噸	18,955,263.00	18,457,264.90
Consumption intensity 耗用密度	Tonnes/RMB ten thousand of revenue 噸／人民幣萬元營收	90.61	97.13

We also adopt the following methods and measures to promote water conservation:

- Posting water saving signs in toilets to remind employees turning off faucets after use
- Regularly checking the water meter readings and hidden leakage problems, and promptly arranging maintenance services with relevant department in case of leakage
- Using faucets and toilets with water efficiency labels and dual-flush toilets

我們亦採取以下方式 and 措施提倡節約用水：

- 在各洗手間內張貼節約用水的提醒標貼，如使用後需關緊水龍頭
- 定期檢查水表讀數及隱藏漏水的情況，如遇上滴水的水龍頭，會立即與相關部門聯絡進行維修服務
- 使用具有節水效能標籤的水龍頭和企廁，以及雙沖水式馬桶



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.2.3. Paper consumption

The paper consumed by the Group is mainly for employees' daily work, such as the printing of documents, financial statements, and circulars.

We also adopt the following methods and measures to reduce paper consumption:

- Replacing the paper-based office administration system with an electronic office system (OA system)
- Maximizing the reuse of paper, using smaller fonts for the necessary printing of documents, using electronic communication technology to transmit information and regularly monitoring and setting printing quotas for users to reduce paper usage
- Posting notice in a prominent place next to printers and copiers to remind employees of double-sided photocopying or paper reuse
- Purchasing paper made of recycled materials
- Establishing a recycling station to collect paper products such as waste paper, posters, letters and envelopes. Except for papers containing confidential information, all recovered papers are sent to waste paper recycling companies for recycling.

#### 3.3. Environment and natural resources

As our main business is environmental protection engineering, the impact of our business operation on the environment is minimal. The main environmental impacts of our business operation are emissions from the consumption of energy, electricity power and paper in project operations and offices.

#### 3.2.3. 紙張使用

本集團的紙張使用主要用於員工的日常工作，例如打印文件、財務表、通告。

我們亦採取以下方式 and 措施針對紙張的使用量：

- 使用電子辦公系統(OA system)取代以紙張記錄為主的辦公室行政系統
- 盡可能重複使用紙張、雙面使用紙張、把必須打印的文件較細字型、利用電子通訊技術傳遞信息、定期監督並為使用者設定打印限額，以減少使用紙張
- 在打印機及複印機旁邊當眼位置張貼告示，提醒員工採用雙面影印或使用再用紙
- 購買可再造物料的紙張
- 設有回收站收集紙類製品，如廢紙、海報、信件及信封等，除了含有保密信息的紙張外，所有經回收的紙張均送往廢紙回收公司進行循環再造處理

#### 3.3. 環境及天然資源

由於我們的主要業務是環保工程，故對環境影響甚微。業務的主要環境影響是於營運項目及辦公室中使用能源、電力、紙張所產生的排放物。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

The Group has reduced its impact on the environment by adopting the emission reduction and energy saving measures mentioned in the sections headed “3.1 Emission” and “3.2 Use of Resources”. We are committed to fostering an environmentally responsible culture for all employees by promoting an environmental friendly living. In terms of diet, we will choose low-carbon ingredients or locally produced food to reduce the carbon emission of food delivery, and try to avoid the use of disposable cutlery or food packaging in activities. In the meantime, we also encourage employees to take public transportation. In 2022, the Group frequently organized and participated in environmental protection activities. On 12 March 2022, Boqi Environmental participated in the Arbor Day Event to promote green production, energy conservation and emission reduction, contributing to the realization of the objective of “carbon peaking and carbon neutrality”. The Group also participated in the Earth Day Event and the Environment Day Event on 22 April 2022 and 5 June 2022, respectively.

本集團已透過採用章節3.1排放物及3.2資源使用中所提及的減排節能措施，減少對環境的影響。我們致力通過推廣環保生活，為全體員工培養對環境負責任的文化。飲食方面，我們會選擇低碳食材或本地生產的食物，以減少食物運送的碳排放；在活動上盡量避免使用一次性餐具或產品包裝。同時，我們亦鼓勵員工乘搭公共交通工具。2022年集團多次組織參與環保活動。2022年3月12日，博奇環保通過種下科技之樹，推動綠色生產和節能減排，為實現「碳達峰、碳中和」目標貢獻自己的力量。2022年4月22日參與地球日活動；2022年6月5日參與環境日活動。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 3.4. Climate change

Climate change refers to the increase in the overall global temperature and the impact of extreme weather, which has a profound impact on the earth and may change our living environment forever, so it has become an important issue today. Companies around the world are taking actions to address climate change, and the Group is no exception. We will actively respond to the possible impacts of climate change in order to prevent climate change from causing damage to operating entities and the communities where our operations are located. We will also pay attention to and meet the ever-changing regulatory requirements for responding to climate change, as well as monitor our own resources consumption and emissions, with particular emphasis on mitigating greenhouse gas effects.

The Group has identified the following risks related to climate change:

- **Physical risk:** Situations such as flooding, abnormal rainfall patterns, extremely hot weather. The situations may lead to temporary closure of office locations, and extreme weather such as typhoons may cause casualties to employees, sudden power outages at office locations and facilities affected by floods;
- **Transition risk:** Failure to adapt to relevant climate change policies and regulatory measures strengthened by the state may lead to business closure, loss of profits and reputational damage.

#### 3.4. 氣候變化

氣候變化是指全球整體溫度上升並帶來極端天氣影響，對地球產生深遠影響，並可能永遠改變我們的生活環境，因此成為當今的重要議題。全球企業正採取行動應對氣候變化，本集團也不例外，我們將積極應對氣候變化可能帶來的影響，避免氣候變化對運營實體及運營點所在社區造成破壞，關注並滿足不斷變化的應對氣候變化監管要求，並監管自身資源消耗及排放，尤其注重減緩溫室氣體效應。

本集團已識別以下有關氣候變化相關的風險：

- **實體風險：**如水浸、異常降雨模式、極端炎熱天氣等，可能導致辦公地點可能需要暫時關閉、颱風等極端天氣可能會造成員工傷亡、辦公地點突然停電、設施受洪水影響等；
- **轉型風險：**如無法適應國家加強的相關氣候變化政策和管制措施，可能導致停業整頓、盈利受損、聲譽受損等。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

The Group has planned the following measures in response to the risks of climate change:

- For new and expanded projects, the Group will promote the investment on the research of green energy conservation and strengthen the ability to tackle long-term climate change and respond to climatic disasters;
- The Group will actively promote theoretical and technological innovations such as green islands and environmental management, in order to reduce the impact of operations on the ecology and the environment, so as to mitigate the process of climate change;
- The Group will formulate measures to ensure employee safety and strictly follow relevant extreme weather guidelines issued by the government;
- The Group will integrate climate change risks into the decision-making process of the top management, regularly identify climate change risks and potential impacts and update its management strategies on climate change;
- The international carbon emission reduction regulations and best industry practices will be adopted, and the Group's carbon emission information will be publicly disclosed regularly;
- The Group will maintain communication with employees, customers, contractors, suppliers and other stakeholders to promote and encourage the reduction of greenhouse gas emissions from day-to-day operations where applicable.

本集團已就氣候變化風險計劃以下應對措施：

- 對於新建及擴建項目，推動綠色節能研究投入，加強抵禦長期氣候變化及應對氣候災害的能力；
- 積極推動環保島、環保管家等理論和技術創新，以爭取降低運營對生態及環境的影響，以減緩氣候變化進程；
- 制定保障員工安全的措施，嚴格遵循政府發佈的相關極端天氣指引；
- 將氣候變化風險納入最高管理機構決策程序，定期識別氣候變化風險以及潛在的影響，更新氣候變化管理策略；
- 納入國際與最佳同業實踐的碳減排規定，定期對本集團的碳排放信息進行公開披露；
- 與僱員、客戶、承辦商、供應商及其他持份者保持溝通，推廣和鼓勵他們在可行情況下減少日常運作所產生的溫室氣體排放。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 4. ESTABLISHING BUSINESS WITH INTEGRITY

As a comprehensive environmental protection engineering technology service enterprise, brand integrity is an important consideration for the Group. We strictly abide by the laws and regulations of the state and regulatory agencies, adhere to compliant operations and foster a culture of integrity. While maintaining a safe working environment, we also attach great importance to the rights and interests of our customers and put great efforts to continuously improve and enhance our service and supplier management system. We are committed to providing customers with high-quality comprehensive environmental management services and continuously promoting the development of the industry.

##### 4.1. Quality management

The Group adheres to the principle of “sustaining by quality, developing by reputation and benefiting by management” to continuously improve the quality management of its projects. We strictly complies with relevant national and industry requirements and standards such as the Building Law of the People’s Republic of China (中華人民共和國建築法) and the Regulation on the Quality Management of Construction Projects (建設工程質量管理條例). To this end, the Group has formulated the Management System for the Investigation and Control of Potential Safety Accidents, the Management System for the Safe and Civilized Construction of EPC Projects, the Engineering Quality Management System, the Engineering Quality Inspection and Acceptance System, the Safety and Quality Management Reward and Punishment System, the Management Manual for the Safety and Quality Management Department and the Management Regulations for Safety Education and Training (Revised), thereby constituting a three-level quality supervision and management system, with a view to improving the internal quality management of projects during the preparation, construction, inspection and acceptance stages:

#### 4. 誠信立業

本集團作為一家綜合性環保工程技術服務企業，品牌誠信是本集團的一個重要考慮。我們嚴格遵守國家和監管的法律法規，堅持合規營運和提倡廉潔文化。在維護安全工作環境的同時，我們亦重視客戶的權益，並努力不斷改進、改善我們的服務和供應商管理系統，致力為客戶提供高質量的綜合環境治理服務，推動整個行業的發展。

##### 4.1. 質量管理

本集團秉承「以質量求生存，以信譽求發展，以管理求效益」為原則，持續提高項目質量管理。我們嚴格遵守《中華人民共和國建築法》、《建設工程質量管理條例》等國家及行業的相關規範和標準。為此，本集團已制定《安全事故隱患排查和治理管理制度》、《EPC工程項目安全文明施工管理制度》、《工程質量管理制度》、《工程質量檢查驗收制度》、《安全質量管理獎懲制度》、《安全質量管理部管理手冊》、《安全教育培訓管理規定(修訂)》等組成的三級質量監督管理系統，以完善工程在籌備、施工、驗收階段的內部質量管理工作：

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Preparation stage

##### 籌備階段

We have established a quality management system for each project department, and incorporated the construction team into the management system to prepare construction and quality inspection plans; carried out strict quality control measures in the design of project plans and in the tender and procurement process; and prepared and approved the industrial guidance for various tasks.

我們建立了項目部質量管理系統，將施工隊伍納入管理系統以編製施工及質量檢驗計劃；在項目方案設計及招標採購環節中進行嚴格質量控制工作；進行編製和審批各項工作的工業指導書。

#### Construction stage

##### 施工階段

We will carry out quality inspection and technical guidance throughout the construction process, and closely monitor the important processes and procedures of each project, including: strengthening process management, inspecting the ongoing construction projects, preparing quality supervision and inspection reports, reporting quality issues and corrective measures in a timely manner, and closely monitoring the solution of quality issues; strengthening the management of personnel entering the site, requiring construction units to be stationed with dedicated quality inspectors and workers with special duties must hold relevant qualification certificates; and strengthening the management of inspection and acceptance of incoming materials and equipment.

我們會全過程進行質量檢查和技術指導，對每個項目的重要過程和工序情況嚴格監控，包括：加強過程管理，檢查正在施工的項目，編寫質量監督檢查報告，及時報告質量問題和糾正措施，密切關注質量問題的解決；加強對進場人員的管理，要求施工單位必需配備專職質量檢驗人員，特殊工種人員必需持有特許工作證明文件；加強對進場的材料、設備的驗收管理。

#### Inspection and acceptance stage

##### 驗收階段

We will carry out inspection and acceptance in strict accordance with the design plan and relevant national and industry norms and standards; carry out multi-level inspection according to the inspection plan to ensure acceptance at four levels; and rectify unqualified items and inspect the items again for acceptance to form a closed loop system.

我們會嚴格按照設計方案，國家及行業的相關規範和標準進行驗收；按照檢驗計劃逐級驗收，確保四級驗收；若驗收項目評為不合格，必須經過整改和再次驗收，形成封閉系統。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

The Group has also obtained ISO9001, ISO14001 and ISO45001 certifications for quality management system and will regularly pay attention to the latest national and industry standards to ensure the updating and improvement of our quality management and assurance system.

During the Year, neither did the Group experience any major accident, abnormal shutdowns and unusual operation events due to quality reasons and safety and health reasons, nor did any products have to be recalled due to quality problems.

In the meantime, the Group has formulated a comprehensive operation assurance strategy to ensure the normal operation of O&M services, facilities and equipment. The strategy includes, among others, team building, standardized management, inspection and maintenance, material management and cross-departmental collaboration.

本集團亦通過了質量管理體系ISO9001、ISO14001、ISO45001認證，以及定期關注適時的國家和行業標準，以確保我們的質量管理和保證系統的更新和改進。

本年度，本集團沒有發生重大事故、因質量原因及安全與健康理由導致不正常停機和運作以及需對產品進行回收的事件。

同時，本集團制定了全面的運行保障策略，以確保運營和維修服務、設施、設備正常運行，包括：建立團隊、規範管理、檢查維修、物資管理、跨部門協作等。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

	<b>Duties/team members</b> 內容／團隊成員	<b>Main purpose</b> 主要目的
<b>Team building</b> 建立團隊	<ul style="list-style-type: none"> <li>Project manager 項目經理</li> <li>Dedicated management personnel (including various functions such as security, operation, inspection and repair, materials, finance and logistics) 專職管理人員(包括：安全、運行、檢修、物資、財務、後勤等)</li> </ul>	<ul style="list-style-type: none"> <li>Carrying out management work in collaboration with each other, with each person assuming their own responsibility 分工協作開展管理工作，各負其責</li> </ul>
<b>Standardized management</b> 規範管理	<ul style="list-style-type: none"> <li>Formulating rules and regulations covering operation procedures, equipment management, operation management, recording, inspection and emergency response 制定運行規程、設備管理、操作管理、記錄、檢驗以及緊急事故應變等規章</li> </ul>	<ul style="list-style-type: none"> <li>Ensuring normal operation of the system 確保系統正常運作</li> </ul>
<b>Inspection and maintenance</b> 檢查維修	<ul style="list-style-type: none"> <li>Professionals on the fields of equipment maintenance, electricity and thermal control, etc. 專業人員(包括：機務、電氣、熱控)</li> </ul>	<ul style="list-style-type: none"> <li>Carrying out 24-hour inspection and maintenance service 開展24小時檢查和維修服務</li> <li>Ensuring normal operation of equipment 確保設備正常運作</li> </ul>
<b>Material management</b> 物資管理	<ul style="list-style-type: none"> <li>Creating a material database 建立物資數據庫</li> <li>Establishing a material procurement team 物資採購小組</li> </ul>	<ul style="list-style-type: none"> <li>Providing required spare parts and materials for the site readily according to the planning of projects 按照項目計劃隨時為現場提供所需要的物資和材料</li> </ul>
<b>Inter-departmental collaboration</b> 跨部門協作	<ul style="list-style-type: none"> <li>Back office 後台部門</li> </ul>	<ul style="list-style-type: none"> <li>Providing labor, financial, material and technical support and analysis of difficult problems for each project 為各項目提供員工、財政、物資、技術支持以及疑難問題分析工作</li> </ul>



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 4.2. Safe production management

The Group adheres to the safety management principle of “zero accident, zero damage and zero casualty” and continuously improves the standard of safe production management. We strictly comply with 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 Prevention and Control of Occupational Diseases (中華人民共和國職業病防治法) and the relevant laws and regulations of the place of operation. In order to effectively implement safety management, the Group continues to promote the formulation and implementation of safety standardization. The following are the three main stages of our work:

#### 4.2. 安全生產管理

本集團秉承「零事故、零傷害、零傷亡」為安全管理原則，不斷提高安全生產管理方面的標準。我們嚴格遵守《中華人民共和國安全生產法》、《中華人民共和國職業病防治法》及運營地方相關的法律法規。為了有效地實施安全管理，本集團持續推廣制定和實施安全標準化的工作。以下三項是我們的主要開展工作：

##### The stage of formulating safe production standardization

###### 制定安全生產標準化階段

- Establish a safety and quality management system according to different professional processes  
按照不同專業工序，制定安全質量管理體系
- Starting with a detailed study on each procedure to enhance the overall level of safety standardization  
仔細從每一工序步驟着手研究，以提高整體安全標準化水平

##### The stage of identifying potential risks on safe production

###### 制定安全生產風險隱患階段

###### The Safety Hazard Detection and Governance and Management System

###### 《安全事故隱患排查和治理管理制度》

- Standardize the execution of a closed-loop safe process  
規範封閉式的安全流程

###### The Special Weather Safe Production Management System

###### 《特殊天氣安全生產管理制度》

- Prohibit operations under extreme weather conditions such as gales, heavy snow, earthquake, extreme cold and scorching heat.  
禁止在極端天氣下進行工作，包括：大風、大雪、地震、極寒、炎熱等

##### The stage of ensuring employees’ safe production

###### 制定員工安全生產階段

###### The Safety Education and Training Management System

###### 《安全教育培訓管理制度》

- According to the needs of employees in different positions, formulate practical education and training programs on safety to improve the quality of safe production of employees.  
按照不同崗位的員工需要，制定實用性的安全教育培訓，以提高員工的安全生產質素

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Targets 對象	Contents of training 培訓內容
Administrative managers and project managers 行政管理人員及項目管理人員	<ul style="list-style-type: none"> <li>• Providing training courses on relevant policies and regulations as well as basic management and technical knowledge 提供有關政策法規、基本管理及技術知識的培訓課程</li> <li>• Mastering basic safe production technology and safe management methods 掌握基本安全生產技術和安全管理的方法</li> <li>• Enhancing the management personnel's understanding on work safety, thus providing sound conditions for safe production 提高管理人員對安全生產工作的認識，為安全生產提供良好條件</li> </ul>
Safe production management personnel 安全生產管理人員	<ul style="list-style-type: none"> <li>• Providing professional training courses related to regulations, policies, standards, safe production management, technology, unexpected accidents, work-related injury and occupational diseases 提供專業化的法規、政策、標準、安全生產管理、技術、突發意外、工傷事故和職業病等相關的培訓課程</li> <li>• Improving the safety management level of professionals 提升專業人員的安全管理水平</li> </ul>
General employees 一般員工	<ul style="list-style-type: none"> <li>• Providing training on occupational health and safe production for frontline employees through three-level education, special projects and regular inspections 透過三級教育、特種項目、定期檢查，為前線員工提供職業健康和安全生產主題培訓</li> <li>• Serving to enhance employees' safety awareness and ability 有助提升員工安全意識和能力</li> </ul>

### Operating stage

#### 運行時間

The Safe Production Responsibility System and Job Safety Duties

《安全生產責任制及崗位安全職責》

- Implementing safety accountability  
實施安全責任制
- Adopting a two-tier and three-level management model  
採用雙層三級管理模式

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Case study 案例

#### Speech Activity in the Safety Month for Nanyang O&M Project

##### 南陽運維項目安全月演講活動

In order to further strengthen the concept of safety development, we adhere to the goal of “safety in priority and prevention first”. The Safety and Quality Management Department has consistently implemented the Group’s “Notice on Carrying out the 2022 Safety Production Month Activities”. Through organizing various kind of activities, the Group has actively publicized national safe production regulations and safety knowledge, improved the safety quality of all employees involved in our projects, implemented safety management measures at all levels, and effectively prevented and reduced the occurrence of production safety accidents during the safety month.

From 1 June 2022 to 30 June 2022, the department responsible for the Nanyang O&M Project launched a safety production month activity with the theme of “obeying the safety production law and taking primary responsibility “. The various activities of the “Safety Production Month” were conducted under the guiding ideology of preventing and resolving major production risks, timely eliminating potential safety hazards in production, effectively implementing safety responsibilities and promoting safe development. The Group has organized and carried out a series of safety production publicity and education activities that are both influential and effective. Through the participation of all employees and comprehensive investigation on hidden hazards, we have eliminated the risks around employees. The Group has continuously improved the safety and protective equipment for employees to create a safe and comfortable working environment, as well as organized emergency trainings based on the annual drill plan formulated for related projects and the actual production site on a regular basis, so as to cultivate employees’ capabilities of self-rescue and mutual aid and improve each employee’s sense of responsibility for safety.

為進一步鞏固安全發展理念，堅持以「安全第一、預防為主」為目標。安全質量管理部積極貫徹落實集團《關於開展2022年「安全生產月」活動的通知》，通過舉辦各類型活動，大力宣傳國家安全生產法規和安全知識，提高項目全體員工的安全素質，落實各級安全管理措施，有效預防和減少以安全月為中心的生產安全事故的發生。

南陽運維項目部於2022年6月1日至2022年6月30日開展了以「遵守安全生產法，當好第一責任人」為主題的安全生產月活動。本次「安全生產月」的各項活動，以防範化解重大生產風險、及時消除生產安全隱患、有效落實安全責任，推動安全發展為指導思想。組織開展一系列既有聲勢又有實效的安全生產宣傳教育活動。通過全員參與、全面覆蓋的隱患排查，消除員工身邊的風險；不斷完善員工安全防護用品的配備，創建安全舒適的作業環境；根據項目制定的年度演練計劃及根據生產現場實際定期組織開展應急培訓，培養員工自救、互救能力，提高每個員工的安全責任心。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 4.3. Anti-corruption

The Group adopts a zero-tolerance attitude towards corruption, bribery, extortion, fraud and money laundering, and strictly abides by the natural laws and regulations related to integrity operation such as the Company Law of the People's Republic of China (中華人民共和國公司法) and the Anti-Money Laundering Law of the People's Republic of China (中華人民共和國反洗黑錢法). In order to implement honest and ethical operations, the Group has established an anti-corruption system which covers early prevention, monitoring process of corruption incidents and post-incident evaluation and handling procedures. In the meantime, we have also formulated and implemented relevant rules and regulations such as the Management Regulations for Administrative Penalties, the Internal Control Guidelines, the Internal Audit Guidelines, the Administrative Measures on Anti-Money Laundering (Trial), the Boqi Environmental Professional Code and the Officer Professional and Ethics Agreement to regulate employee behavior, thereby promoting integrity and self-discipline and requiring employees to sign the related agreements for the strict compliance by employees.

We also encourage employees and related persons to report potential unethical and dishonest conduct within the Group. Whistleblowers can report violations of laws and regulations through e-mail and other reporting methods. In order to safeguard the privacy of whistleblowers, the Group has established a dedicated investigation department responsible for handling reports on corruption, bribery, extortion, fraud and money laundering. Upon receipt of the reported information, the department head will immediately verify the relevant information, arrange an investigation or conduct an independent audit as appropriate and put forward handling advice.

#### 4.3. 反貪污

本集團對貪污、賄賂、勒索、欺詐及洗黑錢等行為採取零容忍態度，並嚴格遵守《中華人民共和國公司法》、《中華人民共和國反洗黑錢法》等國家及相關廉潔運營機關的法律法規。為了實行廉潔道德營運，本集團建立反貪污系統，覆蓋事前預防、事中監督和事後評估及處理程序。同時，我們亦制定並實施相關規章和制度，如：《行政處罰管理規定》、《內部控制管理制度》、《內部審計管理制度》、《反洗錢工作管理辦法(試行)》、《博奇環保職業規範》、《員工職業操守承諾書》等規範員工行為、提倡廉潔自律，並要求員工簽訂條例及嚴格遵守。

我們亦鼓勵員工及有關人士舉報本集團內部潛在的不道德及誠信行為。告密者可透過電子郵件等的舉報方式，舉報違紀違法行為。為了維護告密者的個人私隱，本集團設立專門調查部門負責處理有關貪污、賄賂、勒索、欺詐及洗黑錢等的舉報。在接收到舉報信息後，部門主管會立刻核實相關信息，並視乎情況安排調查或展開獨立審計，以及提出處理意見。



**ESG Report (Continued)****環境、社會及管治報告(續)**

During the Year, the Group organized anti-corruption training activities for directors, management and employees, which enhanced their awareness on practicing integrity and established a strong ideological defense against corruption.

本年度，本集團為董事、管理層和員工舉辦了反貪污培訓活動，增強了董事、管理層和員工廉潔從業的意識，築牢反貪污的思想防線。

Training hours 培訓時長	Number of attendees 參加人數		Percentage of training participation(%) 參加培訓比率(%)
	Directors 董事	Employees 僱員	
6.5 hours	8 persons	all employees	100%
6.5小時	8人	全體員工	100%



During the Year, the Group was not aware of any lawsuits related to corruption, bribery, extortion, fraud and money laundering brought against the Group or its employees.

本年度，本集團並沒有得悉任何對本集團或員工提出的任何有關貪污、賄賂、勒索、欺詐及洗黑錢等的訴訟案件。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 4.4. Promoting the development of environmental protection technology

The Group has always adhered to the principle of “innovation is an inexhaustible driving force for enterprise development” to actively pursue technological innovation, thereby driving the advancement of environmental protection technology in the Company and the industry and making contribution to the solution of environmental problems.

##### 4.4.1. Innovative development

The Group has actively invested in the development of new technologies. Our established large-scale construction projects have equipped with work stations with simulation of different work scenarios, laboratories for physical model and flow field, seawater desulfurization thermal experimental platforms and R&D test platforms, as well as an enterprise technology center which was accredited by the Beijing Municipality and a post-doctoral research station. We have also promoted scientific and technological achievements through technology introduction, exchanges, cooperation, talent development and scientific experiments. In addition, we have also actively participated in the formulation and promotion of national and industry standards to help improve the overall level of the industry. Due to its superior R&D strength, the Group has been rated as an “Innovative Pilot Enterprise in Zhongguancun Science and Technology Park” and a “Standardized Pilot Unit in Zhongguancun Science and Technology Park”, and its R&D projects have been acclaimed as “SCR Flue Gas Denitrification Key Technology and Equipment R&D and Industrialization Major Project in Zhongguancun”.

#### 4.4. 推動環保技術發展

本集團始終秉持「創新是企業發展的不竭動力」的原則，積極推動技術創新，為推動本集團和行業的環保技術進步，解決環境難題做出了貢獻。

##### 4.4.1. 創新發展

本集團積極投資新技術發展，我們配有大型搭建項目包括：全工況仿真培訓基地、物模流場試驗室、海水脫硫熱態實驗平台和研發試驗平台、北京市認定的企業技術中心以及企業博士後科研工作站。我們亦通過技術引進、交流、合作、人才培養，以及科學實驗，促進科技成果達成。此外，我們亦積極參與國家和行業標準的制定與推廣工作，以協助提升行業整體水平。本集團憑藉優越的研發實力，獲得「中關村科技園區创新型試」、「中關村科技園標準化試點單位」以及研發項目獲得「中關村SCR煙氣脫硝關鍵技術和裝備研發與產業化重大項目」的評級。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 4.4.2. Protection of intellectual property rights

The Group attaches great importance to the protection of intellectual property rights, and strictly abides by the Advertising Law of the People's Republic of China (中華人民共和國廣告法), the Trademark Law of the People's Republic of China (中華人民共和國商標法), the Patent Law of the People's Republic of China (中華人民共和國專利法), the Copyright Law of the People's Republic of China (中華人民共和國著作權法) and the Intellectual Property Law of the People's Republic of China (中華人民共和國知識產權法) and other laws and regulations in the regions of operation. Besides, the Group has also formulated and implemented relevant regulations such as the Patent Application and Incentive Regulations and R&D Results Delivery and Utilization System. The Group regards trademarks, patents, copyrights, confidential data and other intellectual property rights as our important assets which should be safeguarded. In order to ensure the orderly development of intellectual property management, we have established a patent management department, which is responsible for creating patent management systems and strategies, arranging patent applications and maintaining independent intellectual property rights.

During the Year, the Group maintained a total of 67 registered patents and was granted 10 new patents.

#### 4.5. Protection of interests

The Group attaches great importance to protecting the rights and interests of customers, and strictly abides by laws and regulations such as the Confidentiality Law of the People's Republic of China (中華人民共和國保密法), the Consumer Rights Protection Law of the People's Republic of China (中華人民共和國消費者權益保護法), the Labor Contract (勞動合同) and the Confidentiality Agreement (保密協議). We have formulated and implemented the Boqi Environmental Professional Code, which requires employees to strictly keep confidential of customers' privacy and business secrets, and specifies that "all employees are obliged to keep the information related to the Group confidential, including information related to the Group's assets, products and customers, and no information related to the Group may be disclosed to third parties the Group's authorization". As such, the rights and interests of customers are highly protected.

#### 4.4.2. 保護知識產權

本集團高度重視對知識產權的維護，嚴格遵守《中華人民共和國廣告法》、《中華人民共和國商標法》、《中華人民共和國專利法》、《中華人民共和國著作權法》、《中華人民共和國知識產權法》等運營當地的法律法規，且制定並實施有關條例，如：《專利申請及獎勵規定》、《研發成果交付使用制度》等，視商標、專利、創作權、機密數據及其他知識產權為我們重要的資產並予以保護。為了確保知識產權管理的有序發展，我們設立了專利管理部門，負責創建專利管理制度和戰略，安排專利申請，維護自主知識產權等。

本年度，本集團共保持67項註冊專利，並獲得10項新專利。

#### 4.5. 權益保障

本集團高度重視保護客戶的權益，嚴格遵守《中華人民共和國保密法》、《中華人民共和國消費者權益保護法》、《勞動合同》、《保密協議》等法律法規，我們制定並實施《博奇環保職業規範》，規範員工對客戶的私隱及商業機密嚴格保密，明確列明「所有員工有責任對與本集團利益相關的信息，如本集團的資產、產品和客戶信息進行保密，未經本集團許可，不得向其他方透露本集團的任何信息」以維護客戶的權益。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

In addition, the Group has formulated and implemented the Owner Satisfaction Survey Form, established a comprehensive customer communication and feedback system, and actively communicates with customers to enhance the level of customer satisfaction. At the same time, we also require employees to seek satisfaction evaluations from owners of projects every year, and they have to interview with the owners to listen to their evaluation opinions when project inspection and guidance work are being conducted. We will gather feedback from the owners and convene necessary departments to develop improvement plans for specific issues.

During the Year, the Group did not receive any complaint about products and services, and received a total of 45 commendation letters from owners, who highly affirmed the Group's project operation and management in 2022.

#### 4.6. Supply chain management

The Group believes that maintaining solid and stable supplier relationships is critical to the quality of its products and services. To this end, we have formulated and implemented the Regulations for the Management of Qualified Suppliers, the Regulations for the Procurement Management of Engineering Equipment/Material, the Project Tender Management System and the O&M Tender Management System. Through continuous improvement of cooperation and communication with suppliers and its management system, the Group has standardized its supplier management work, thus ensuring that the purchased products comply with contract specifications and national or industry mandatory standards as well as the stable and healthy growth of the Group's business.

During the Year, a total of 643 suppliers from Mainland China provided services to the Group, which can be classified into suppliers of process equipment, electrical equipment, thermal control equipment, denitrification equipment, materials and spare parts.

此外，本集團制定並實施《業主滿意度調查表》，建立了完善的客戶溝通回饋系統，積極與客戶溝通，提升客戶滿意程度水平。同時我們亦規範員工在每年度向業主查詢滿意程度評價、在項目檢查和指導工作時需與業主進行會談聽取對方的評價意見。我們將收集業主的回饋意見，並召集必要的部門制定具體問題的改進計劃。

本年度，本集團概無接獲關於產品及服務的投訴，且共計收到來自業主的45封表揚信，業主高度肯定了本集團在2022年度項目運營和管理工作。

#### 4.6. 供應鏈管理

本集團認為，保持堅實和穩定的供應商關係對其產品和服務的質量至關重要。我們制定並實施《合格供應商管理規定》、《工程設備／材料採購管理規定》、《工程類招標管理制度》及《運維類招標管理制度》等，透過不斷改善與供應商的合作和溝通，及其管理系統，以規範供應商管理工作及確保產品符合合同、國家或行業強制性標準，以及本集團的業務持有穩定健康增長。

本年度，共有643名來自中國內地的供應商為本集團提供服務，主要類別可分為工藝設備、電氣設備、熱控設備、脫硝設備、材料和備件供應商。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

When conducting supplier tenders, we will consider various aspects of suppliers to avoid environmental and social risks in the supply chain:

- Security management and corporate legal credibility
- Industry performance
- Operation and market conditions, environmental and social responsibility performance
- Financial, production and operation conditions
- Certifications on quality, environmental management, occupational health and safety system
- Technical standards

We attach great importance to eco-friendly and energy-efficient products and actively promote such products. Green procurement is an important consideration for us. At present, all of the Group's high-voltage motors comply with the "Secondary Energy Efficiency IE3" standard in the national standard "Minimum allowable values of energy efficiency and energy efficiency grades for small and medium three-phase asynchronous motors" (中小型三相異步電動機能效限定值及能效等級) (GB18613-2012), thereby reducing the energy consumed.

在進行供應商招標時，我們會從供應商的多方面作考慮因素，以此來避免供應鏈中的環境和社會風險：

- 安全管理及企業法律信譽
- 行業業績
- 經營、市場情況、環境及社會履行責任情況
- 財務、生產經營狀況
- 質量、環境管理、職業健康安全體系認證
- 技術指標

我們高度重視生態友好型、節能型產品，並積極推廣這些產品。綠色採購是我們的重要考慮因素。目前本集團所有的高壓電機都符合國家標準《中小型三相異步電動機能效限定值及能效等級》(GB18613-2012)中的「二級能效IE3」標準，降低了能源消耗。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

In terms of supplier management, we will regularly evaluate supplier performance based on the following factors, and classify suppliers into different cooperation categories according to the evaluation results. We will also give feedback to relevant business departments and supervise the progress of improvement, so as to drive the continuous progress of suppliers:

- Contract performance capabilities
- After-sales services
- The quality of products, projects and construction
- Safe production and environmental management
- Integrity, honesty and cases of violations of laws and regulations

#### 5. PEOPLE ORIENTED

The Group cares for and respects employees and insists to share its achievements with them, so as to continuously enhance employees' sense of belonging and happiness. Through the establishment of a human resources system, we have rationally formulated a human resources management platform and a complaint management platform for employees, in order to safeguard the rights and interests of employees and establish good relations with them. The Group strictly abides by the Labor Law of the People's Republic of China (中華人民共和國勞動法), the Labor Contract Law of the People's Republic of China (中華人民共和國勞動合同法), the Minors Protection Law of the People's Republic of China (中華人民共和國未成年人保護法) and the Prohibition of Child Labor Provisions (禁止使用童工規定) and other national and related laws and regulations. Meanwhile, we have also formulated and implemented policies such as the Regulations on Recruitment and Employment Management, the Regulations on Attendance and Leave Management and the Professional Code of China Boqi Environmental (Holdings) Co., Ltd., striving to create an ideal workplace environment for employees based on the principle of fairness, impartiality and openness. During the Year, the Group had a total of 1,459<sup>4</sup> employees and most of them are based in Mainland China. Our workforce distribution is as follows:

- 4 The decrease in the number of employees compared to the last year was due to the Group's continuous increase in investment in its information technology construction, which improved the per capita efficiency of its projects and optimized part of the personnel structure in line with the needs of business transformation.

在供應商管理方面，我們會根據以下因素定期評估供應商表現，並根據其評估結果把供應商劃分合作類別，亦會跟相關業務部門作出回饋並督促問題改善進度，推動供應商持續進步：

- 合同履行能力
- 售後服務
- 產品、工程、施工質量
- 安全生產及環境管理情況
- 誠信履約及違法違規情況

#### 5. 以人為本

本集團愛護員工、尊重員工，堅持成果共享，不斷努力提升員工的歸屬感和幸福感。通過建立人力資源系統、合理化建議管理平臺、員工投訴管理平臺維護員工的權益，促進與員工的良好關係。本集團嚴格遵守《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、《中華人民共和國未成年人保護法》、《禁止使用童工規定》等國家與相關的法律法規。同時，我們亦制定並實施政策，如：《招聘與錄用管理規定》、《考勤及休假管理規定》、《中國博奇環保科技(控股)有限公司職業規範》等，致力為員工打造公平、公正、公開的理想職場環境。本年度，本集團的員工團隊共有1,459<sup>4</sup>當中中國內地為大部份員工的常駐地區。我們的員工分佈如下：

- 4 僱員人數較上年減少是由於本集團持續加大信息化建設投入，提升了項目人均效率及結合業務轉型所需進行了部分人員結構優化。

**ESG Report (Continued)**

## 環境、社會及管治報告(續)

**Employee composition****2022**

## 僱員組成

**2022年**

Total number of employees 僱員總數	1,459
By gender 按性別	
• Male 男性	1,098
• Female 女性	361
By age group 按年齡組別	
• Aged below 30 30歲以下	328
• Aged 30 to 40 30-40歲	681
• Aged above 40 40歲以上	450
By region 按地區	
• North China 中國華北區	985
• East China 中國華東區	122
• Central China 中國華中區	96
• Northwest China 中國西北區	127
• South China 中國南方區	129

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Employee composition 僱員組成

2022  
2022年

##### By employment group

##### 按僱傭組別

• Concession operation management staff 特許經營管理人員	95
• Engineering and technical staff 工程技術人員	141
• Sales staff 銷售人員	37
• Research and development staff 研發人員	67
• Administrative staff 行政管理人員	38
• Production staff 生產人員	1,081

##### Employee type

##### 就業模式

• Full-time 全職	1,459
• Part-time 兼職	0



**ESG Report (Continued)****環境、社會及管治報告(續)**

The employee turnover rate for the Year by gender, age group and employment region was as follows:

本年度按性別、年齡組別、僱傭組別劃分的僱員離職率如下：

<b>Turnover of employees<sup>5</sup></b> <b>僱員離職率<sup>5</sup></b>	<b>2022 (%)</b> <b>2022年 (%)</b>
By gender 按性別	
• Male 男性	21.52
• Female 女性	8.36
By age group 按年齡組別	
• Aged below 30 30歲以下	10.28
• Aged 30 to 40 30-40歲	9.18
• Aged above 40 40歲以上	10.41
By region 按地區	
• North China 中國華北區	13.63
• East China 中國華東區	5.48
• Central China 中國華中區	2.19
• Northwest China 中國西北區	3.90
• South China 中國南方區	5.00

5 Turnover of employees = number of lost employees/total number of employees at year end×100%

5 僱員離職率 = 流失僱員人數 / 年終僱員人數 × 100%

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 5.1. Employment management

We treat all employees equally and ensure fair opportunities in areas such as recruitment, promotion and career-related development. When recruiting employees, we give equal consideration to every job applicant, and prohibit any discrimination arising from race, gender, marital status, religious belief and other factors. We enter into the Labor Contract and the Confidentiality Agreement with each employee we recruited, which specifies the working hours, labor conditions, labor remuneration, welfare benefits, training and confidentiality of business secrets, so as to protect the basic rights and interests of employees and eliminate forced labor. Meanwhile, we will require job applicants to verify identification documents to eliminate any possibility of employing child labor. In case of any violation, the Group will handle the case in accordance with the Labor Contract and terminate the employment contract immediately. In the event of dismissal or voluntarily resignation of employees, we will strictly comply with the procedures set out in the Labor Law of the People's Republic of China (中華人民共和國勞動法) and the Labor Contract Law of the People's Republic of China (中華人民共和國勞動合同法) and prohibit any unfair or unreasonable dismissal. We will also arrange interviews with exiting employees to understand the reasons for leaving and make corresponding improvements.

During the Year, the Group did not violate any laws or regulations related to compensation and dismissal, recruitment and promotion, working hours, equal opportunity, diversity, anti-discrimination, prevention of sexual harassment, violation of child labor or forced labor.

#### 5.1. 僱傭管理

我們對全體員工採取一視同仁的態度，確保在招聘、升職、與職業有關的發展等方面為員工提供公平的機會。在招聘員工時，我們對每位求職者都給予同等的考慮，禁止任何因種族、性別、婚姻狀況、宗教信仰等的歧視行為；在錄取員工時，我們與員工簽訂《勞動合同》及《保密協議》，通過規範工作時間、勞動條件、勞動報酬、福利待遇、培訓、商業秘密的保密等，保護員工的基本權益，杜絕強制勞工。同時我們會要求求職者核實身份證明文件，杜絕任何聘用童工的可能性。如發現任何違規情況，本集團將按照《勞動合同》執行處理，並立即終止其工作合約。在解僱員工或員工自願離職時，我們嚴格按照《中華人民共和國勞動法》及《中華人民共和國勞動合同法》中列明的程序執行，禁止任何不公或無理解僱的事件發生。我們亦會安排離職面談，了解離職原因，並做相應的改進。

本年度，本集團沒有違反任何有關薪酬和解僱、招聘和晉升、工作時間、平等機會、多元化、反歧視、防止性騷擾、違反童工或強迫勞動的法律或法則。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 5.2. Benefits and caring

The Group has formulated its employee welfare policy based on the principle of legality and fairness. Employee benefit plans are established according to legal and reasonable standards. We have developed a salary structure of “basic salary + bonus + allowance” coupled with an appraisal system guided by “performance result”. We will consider group and individual performance to ensure that employees receive their fair remuneration on time. In addition, we also provide equity incentive for core management personnel and key employees to motivate them to continuously improve their performance.

In addition to fixed remuneration, the Group also provides employees with a variety of benefits to meet the needs of different employees:

- Personal leave, sick leave, work-related injury leave, marriage leave, bereavement leave, maternity leave and paternity leave
- Employees are provided with paid annual leave based on their working experience and length of service
- Pension insurance, basic medical insurance, unemployment insurance, work injury insurance, maternity insurance and housing provident fund are paid for eligible employees
- Accidental commercial insurance and supplementary medical insurance are purchased for general employees
- Employees are provided with transportation allowance, meal allowance and other benefits as appropriate

#### 5.2. 福利關愛

本集團將員工福利政策建立在合法和公平的原則之上。員工福利計劃是按照合法和適度的標準制定的。我們設計了「基本薪金+獎金+津貼」的薪酬結構，並同時採用以「績效結果」為導向的考核制度，同時考慮團體和個人的績效，以保證員工得到公平的報酬，並按時領取薪金。此外，我們亦為核心管理層和重要人員提供股權激勵策略，以激勵他們不斷提升工作表現。

除了固定薪酬外，本集團為員工提供多元化的福利，以滿足不同員工的需要：

- 事假、病假、工傷假、婚假、喪假、產假及陪產假
- 根據員工的工作經驗和服務年期安排帶薪年假
- 為符合條件的員工支付養老保險、基本醫療保險、失業保險、工傷保險、生育保險和住房屋積金
- 為一般員工購買意外商業保險及補充醫療保險
- 視乎情況向員工發放交通津貼、午餐津貼及其他福利津貼

## ESG Report (Continued)

### 環境、社會及管治報告(續)

In addition, the Group also pursues a democratic management approach, respects the demands of employees and strives to create a harmonious working environment. We have established various mechanisms to provide communication channels for employees to protect their rights of expression and participation:

- Independent trade union branches
- Mechanism for the open discussion of corporate affairs
- Mechanism for meetings of representatives of employees
- Mechanism for communication between employees and directors or supervisors

### 5.3. Development and training

The Group regards employees as its most valuable asset. Adhering to the principle of “on-demand training and serving the practical purpose”, the Group strives to provide employees with personal development opportunities and personalized development scope, so that employees with different positions and functions can continuously develop their careers and improve their overall quality and ability, while at the same time providing the Group with sufficient talents for the implementation of its plan in the technology industry. The Group has implemented its Training Management Regulations and carried out its talent training program based on internal management strategies, annual management targets and various needs of employees, so as to provide a diversified training plan:

- Corporate culture training
- Talent development and employee motivation training
- Technology and knowledge training related to energy storage for new business and joint frequency modulation of thermal storage
- Training on general skills and management such as ROE
- Training on key account growth

此外，本集團亦遵循民主的管理方式，尊重員工的要求，努力創造和諧的工作環境。我們建立了各項機制，為員工提供溝通管道，保障員工的發言和參與權利：

- 獨立的工會分支
- 企業事務公開機制
- 職工代表大會機制
- 職工董事及職工監事機制

### 5.3. 發展及培訓

本集團視員工為最寶貴的財富，堅持「按需培訓，學以致用」為原則，努力為員工提供個人發展機會和個性化的發展空間，使不同崗位、不同職能的員工都能在職業生涯中持續發展，不斷提高員工的整體素質和能力，同時為本集團提供充足的人才來實施技術產業計劃。本集團實施《培訓管理規定》，並以內部管理戰略、年度管理目標、員工的各種需要，實施人才培訓計劃，提供多元化的培訓計劃：

- 公司企業文化培訓
- 人才培養及員工激勵培訓
- 新業務儲能、火儲聯合調頻相關技術和知識培訓
- 通用技能及ROE等管理類培訓
- 大客戶成長培訓



## ESG Report (Continued)

### 環境、社會及管治報告(續)

Meanwhile, we also pay attention to the career development of employees, therefore we have formulated and implemented the Promotion Administrative Measures for the Engineering Management Center, which regulates the basis and standards for employee promotion. We have also established the positions of R&D personnel and project managers, laying out a clear career path for employees. We have actively built a dedicated and professional workforce by improving the talent development system.

During the Year, the training attendance rates of employees by gender and employment group were as follows:

同時，我們亦關注員工的職業發展，制定並實施《工程管理中心職級晉升辦法》，規範了員工的晉升依據和標準，並且專門成立研發人員和項目經理的職位，為員工的職業道路進行了明確的規定。我們通過完善人才發展系統，積極構建專業及職業化的員工隊伍。

本年度，僱員培訓出席比率按性別和僱傭組別如下：

Training attendance rate of employees <sup>6</sup> 僱員培訓出席比率 <sup>6</sup>	2022(%) 2022年(%)
By gender 按性別	
• Male 男性	100
• Female 女性	100
By employment group 按僱傭組別	
• Concession operation management staff 特許經營管理人員	100
• Engineering and technical staff 工程技術人員	100
• Sales staff 銷售人員	100
• Research and development staff 研發人員	100
• Administrative staff 行政管理人員	100
• Production staff 生產人員	100

6 Training attendance rate of employees = number of trained employees in that group/total number of employees in that group

6 僱員培訓比率=該類別受培訓僱員人數/該類別僱員人數

## ESG Report (Continued)

### 環境、社會及管治報告(續)

During the Year, the completed training hours per person by gender and employment group were as follows:

本年度，按性別及僱傭組別劃分的培訓人均完成培訓小時如下：

Training	Average training hours (hours/person) <sup>7</sup>
培訓	平均培訓小時 (小時／僱員) <sup>7</sup>
	2022 2022年
By gender	
按性別	
• Male	6.00
• 男性	
• Female	6.00
• 女性	
By employment group	
按僱傭組別	
• Concession operation management staff	6.00
特許經營管理人員	
• Engineering and technical staff	8.00
工程技術人員	
• Sales staff	6.00
銷售人員	
• Research and development staff	6.00
研發人員	
• Administrative staff	6.00
行政管理人員	
• Production staff	8.00
生產人員	

<sup>7</sup> Average training hours of employees by group = total training hours of employees by group/total number of employees in that group

<sup>7</sup> 按類別劃分的僱員平均受訓時數=按類別僱員的總受訓時數／該類別僱員人數

## ESG Report (Continued)

## 環境、社會及管治報告(續)

Case study  
案例

## The Group's 20th Anniversary

## 集團20週年慶典

On 24 June 2022, Boqi celebrated its 20th anniversary with the theme of “Achieving its Goals with Constant Efforts in 20 Years” in Beijing. Mr. Zeng Zhijun, Chief Executive Officer of the Group, reviewed the Group's 20-year history of ecological and environmental governance in the celebration, expressed gratitude to all employees who have worked hard for the Group, and extended sincere thanks to investors, owners and business partners for their caring and support. The Group presented trophies to loyal employees who have served the Group for more than 15 years. The Group regards employees as its most valuable asset and is always proud of them.

Through the 20th anniversary celebration activities, the spirit of Boqi has been further strengthened, which is conducive to the Group's stable and solid industrial chain. Adhering to the attitude of “being realistic, seeking innovation and pursuing excellence”, the Group will continue to strive for its development to usher in an even brighter future for the next 20 years.

2022年6月24日，博奇「廿念不忘，行則將至」主題20週年慶典活動在北京成功召開。本集團行政總裁曾之俊先生在慶典中深情回顧本集團在生態環境治理道路上的二十年曆程，並對所有為集團付出努力的員工、對給予本集團關心和支持的投資者、業主、合作夥伴表示衷心的謝意。本集團為司齡滿十五年以上的忠誠員工頒發了獎杯。本集團始終視員工為本集團最大的財富和驕傲。

通過二十週年慶典活動更加凝聚了博奇精神，更利於本集團穩固紮實產業鏈，繼續以「求實創新，追求卓越」的態度，為集團奮鬥下一個二十年再次發光發熱。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 5.4. Health and safety

The Group attaches paramount importance to the protection of the health and safety of its employees. The Group greatly emphasizes the safety and welfare of its employees, and strictly abides by the Law on Prevention and Control of Occupational Diseases of the People's Republic of China (中華人民共和國職業病防治法), the Production Safety Law of the People's Republic of China (中華人民共和國安全生產法), the Provisions on the Supervision and Administration of Occupational Health at Work Sites (工作場所職業衛生監督管理規定), the Work-related Injury Insurance Regulations (工傷保險條例), and the Management System on Labor Protection Products and Safety Tools (勞動防護用品及安全工器具管理制度) and other local laws and regulations, and formulated its own policies such as the Occupational Health and Safety Management System and the Notice of Occupational Hazards in Labor Contract. To this end, the Group will take various measures to establish a safe working environment. We will establish emergency measures such as fire or explosion response plans, and conduct rescue and fire drills. In addition, our management personnel are responsible for monitoring the work environment, systems and equipment to ensure that they are in a safe state. At the same time, we will also provide employees with any information, guidance, training and supervision needed to avoid work-related injuries. We also abide by the national regulations on the protection of employees, regularly distribute effective and qualified personal protective equipment to employees, and also issue notices to employees to ensure that they are aware of the potential hazards in the workplace beforehand. Besides, we conduct occupational health inspections for all employees every year, and regularly organize external and internal occupational health and safety activities, to enable employees understand their health status and help them prevent occupational diseases.

During the year, no employees of the Group lost working days due to work-related injuries.

In the past three years, no employee of the Group was involved in a work-related fatalities.

#### 5.4. 健康與安全

本集團視保護員工的健康和安全極為重要。本集團高度重視員工的安全和福利，嚴格遵守《中華人民共和國職業病防治法》、《中華人民共和國安全生產法》、《工作場所職業衛生監督管理規定》、《工傷保險條例》、《勞動防護用品及安全工器具管理制度》等運營當地的法律法規，並制定了《職業健康安全管理制度》、《勞動合同職業病危害因素告知書》政策。為此，本集團將採取各種措施，建立一個安全的工作環境。我們建立應急措施，如火警或爆炸的應對計劃、舉行救援及火警演習。此外，我們的管理層人員負責監察工作環境、系統及器械設備，確保處於安全狀態。同時，我們亦會為員工提供免受工傷所需要的任何信息、指導、培訓及監管。我們亦遵守國家保護員工條例，定時向員工發放有效合格的個人防護裝備，亦向員工發下通知書，讓員工在工作前得悉工作場地的潛在危險。另外，我們每年為所有員工進行職業健康檢查，並定期組織外部和內部的職業健康和活動，使員工們可以了解自己的健康狀況，幫助他們預防職業病。

本年度，本集團沒有員工因工傷損失工作日數。

於過去三年，本集團並沒有員工涉及因工死亡事故。

## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### Case study 案例

#### Red Cross first aid skills training

##### 紅十字救護技能培訓

On 21 July 2022, the Group invited instructors from Beijing Qiushi Vocational Skills Training School, a designated institution of the Beijing Red Cross First Aid Training Base, to train the Group's employees on cardiopulmonary resuscitation skills and comprehensive first aid skills. The training content covers first aid knowledge and skills such as sporting knowledge, on-site rescue concept, cardiopulmonary resuscitation CPR+AE, trauma rescue, etc. In the training, instructors used simulators to conduct on-site demonstrations, and demonstrate self-rescue and mutual-rescue knowledge on how to deal with common emergencies in daily rescue, AED operation procedures, respiratory foreign substance clearance, manual cardiopulmonary resuscitation compression techniques and implementation steps. Through this first aid training, the employees of Boqi have mastered the necessary first aid skills in the emergency rescue process, and can take on the ability to save themselves and others in work or social life.

2022年7月21日，集團邀請北京市紅十字會應急救護培訓基地指定機構——北京市求實職業技能培訓學校的老師對集團員工進行心肺復甦技能及綜合應急救護技能的培訓。培訓內容涵蓋紅十字運動知識、現場救護概念、心肺復甦CPR+AE、創傷救護等急救知識和技能。利用模擬人進行現場演示，現場演示日常救援中常見突發事件的處理方法、AED操作流程、氣道異物清理、徒手心肺復甦按壓手法和實施步驟等方面的自救互救知識。通過開展此次緊急救護培訓，讓博奇人熟練掌握了緊急救援過程中的必備急救技能，在工作或社會生活中能夠承擔起一份自救和救人的能力。



## ESG Report (Continued)

### 環境、社會及管治報告(續)

#### 6. SUPPORTING AGRICULTURE AND PUBLIC WELFARE

While endeavoring in its production and operation, the Group will also continue to pay attention to social public welfare undertakings to do charity works and solve social problems, and make efforts to maintain the harmony and stability of the enterprise and society.

- (1) In February 2022, the Group invested more than RMB110,000 in the purchase of Sinopec's public welfare agricultural products as holiday benefits to employees. This served both purposes of helping farmers to sell their products and distributing holiday benefits. The revitalization of the countryside brings great hope to the farmers, while the heart-warming welfare makes the employees feel happiness. Boqi Environmental earnestly fulfills its social obligations and participates in public welfare activities with practical actions.

#### 6. 助農、公益

本集團在做好生產經營的同時，一如既往的關注社會公益事業，做好事、解難事，為維護企業和社會的和諧穩定做出努力。

- (1) 2022年2月，集團投入人民幣十一萬餘元購買中石化公益農產品作為節日福利發給員工，幫助農民銷售產品與發放節日福利相結合。振興鄉村給農民送去殷殷希望，暖心福利讓員工感到滿滿幸福。博奇環保認真履行社會義務，用實際行動參與到公益活動中。



## ESG Report (Continued)

## 環境、社會及管治報告(續)

(2) On 24 March 2022, Boqi Environmental actively responded to the “Aiding Hong Kong in Unity to Fight Against the Pandemic” campaign initiated by the United Front Work Department of Fengtai District, Beijing, to fulfill corporate social responsibility, and donated RMB50,000 to assist the grassroots communities in Hong Kong, thus making contributions to Hong Kong in its fighting against the pandemic.

(2) 2022年3月24日，博奇環保積極響應北京豐台區統戰部發起的「聯心援港，抗疫有我」行動，踐行企業社會責任，捐款人民幣5萬元援助香港基層社區同心抗疫，為香港早日戰勝疫情作出了積極貢獻。



## 中共北京市丰台区委统战部

## 感谢信

北京博奇电力科技有限公司工会委员会：

贵单位在中共北京市丰台区委统战部发起的“联心援港·抗疫有我”行动中彰显企业公益精神，践行企业社会责任，踊跃援助香港基层社区同心抗疫，为香港早日战胜疫情做出了积极贡献。感谢贵单位对香港疫情防控工作的大力支持和无私奉献！

疫情无情，人间有爱。今年二月以来，香港第五波疫情蔓延全港，以习近平同志为核心的党中央高度重视，对香港抗疫提出“三个一切”和“两个确保”的明确要求，各企业纷纷行动起来，团结一心，在香港奋力抗疫的关键时刻，贵单位伸出援手，慷慨解囊，施大爱于无声，以善行显情怀，用义举铸担当，捐款助力香港基层社区抗击疫情，凝聚起京港心手相连、风雨同舟、共克时艰的磅礴力量，让香港市民再次真切感受到祖国的关爱和温暖！

再次对贵单位的大爱善举表示衷心感谢和崇高敬意！

中共北京市丰台区委统战部  
2022年3月24日

## ESG Report (Continued)

### 環境、社會及管治報告(續)

- (3) On 9 September 2022, the Group and the Beijing Xiangrong Public Welfare Foundation jointly launched a caring project on the Tencent Public Welfare Platform, aiming to build book corners for children in underdeveloped areas such as Hunan, Gansu, Sichuan, and Henan so that children in mountainous areas can have good books to read. A total of 79 people responded to Boqi Environmental's call to participate in the donation, which amounted to RMB27,140.10 in total. Though the amount was not much, but it represented Boqi Environmental's caring love, which gave hope and a feeling of warmth for children in the mountainous areas.

- (3) 2022年9月9日，本集團與北京市向榮公益基金會，在騰訊公益平台上共同發起愛心項目，旨在為湖南、甘肅、四川、河南等欠發達地區的孩子們建設班級圖書角，讓山區孩子有書讀，讀好書。博奇環保共號召79人次參與了捐贈，一起捐助善款27,140.10元。博奇環保集小善，成大愛，傳遞愛心，為山區孩子們點亮一盞明燈，奉獻一片溫暖。





## ESG Report (Continued)

## 環境、社會及管治報告(續)

## APPENDIX I: INDEX OF ESG REPORTING GUIDE OF THE STOCK EXCHANGE

## 附錄一：香港聯交所《環境、社會及管治報告指引》索引

Environment aspect 環境範疇		Related sections 相關章節	
<b>A1: Emissions</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and nonhazardous waste.	3. Emission 3.1 Emission
<b>A1：排放物</b>	一般披露	有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	3. 綠色運營 3.1 排放物
	A1.1	The types of emissions and respective emissions data.	3.1.2 Flue gas treatment
	A1.1	排放物種類及相關排放數據。	3.1.2 煙氣處理
	A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	3.1.1 Greenhouse gas
	A1.2	直接(範圍1)及能源間接(範圍2)溫室氣體排放量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。	3.1.1 溫室氣體
	A1.3	Total hazardous waste produced and intensity.	3.1.4 Waste treatment
	A1.3	所產生有害廢棄物總量及密度。	3.1.4 廢棄物處理
	A1.4	Total non-hazardous waste produced and intensity.	3.1.4 Waste treatment
	A1.4	所產生無害廢棄物總量及密度。	3.1.4 廢棄物處理

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Environment aspect 環境範疇		Related sections 相關章節
A1.5	Description of emission target(s) set and steps taken to achieve them.	3. Green operation 3.1.1 Greenhouse gas 3.1.2 Flue gas treatment 3.1.3 Sewage treatment 3.1.4 Waste treatment
A1.5	描述所訂立的排放量目標及為達到這些目標所採取的步驟。	3. 綠色營運 3.1.1 溫室氣體 3.1.2 煙氣處理 3.1.3 污水處理 3.1.4 廢棄物處理
A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	3. Green operation 3.1.4 Waste treatment
A1.6	描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。	3. 綠色營運 3.1.4 廢棄物處理
<b>A2:</b> <b>Use of resources</b>	General disclosure	3.2 Use of resources
<b>A2：資源使用</b>	一般披露	3.2 資源使用
A2.1	Direct and/or indirect energy consumption by type in total and intensity.	3.2.1 Energy
A2.1	按類型劃分的直接及／或間接能源總耗量及密度。	3.2.1 能源
A2.2	Water consumption in total and intensity.	3.2.2 Water resources
A2.2	總耗水量及密度。	3.2.2 水資源
A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	3. Green operation 3.2.1 Energy
A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。	3. 綠色營運 3.2.1 能源

## ESG Report (Continued)

## 環境、社會及管治報告(續)

Environment aspect			Related sections
環境範疇			相關章節
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	3. Green operation 3.2.2 Water resources	
A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。	3. 綠色營運 3.2.2 水資源	
A2.5	Total packaging material used for finished products and the amount per unit produced.	Not available, as packaging material is not involved in the Group's business	
A2.5	製成品所用包裝材料的總量及每生產單位佔量。	不適用，本集團業務不涉及包裝材料	
<b>A3:</b> <b>Environment and natural resources</b>	General disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	3.3 Environment and natural resources
<b>A3:</b> <b>環境及天然資源</b>	一般披露	減低發行人對環境及天然資源造成重大影響的政策。	3.3 環境及天然資源
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	3.3 Environment and natural resources	
A3.1	描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。	3.3 環境及天然資源	
<b>A4:</b> <b>Climate change</b>	General disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer. °	3.4 Climate change
<b>A4:</b> 氣候變化	一般披露	識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。	3.4 氣候變化
A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	3.4 Climate change	
A4.1	描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對行動。	3.4 氣候變化	

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Environment aspect 環境範疇		Related sections 相關章節	
<b>B. Society</b>			
<b>B. 社會</b>			
<b>B1: Employment</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, antidiscrimination, and other benefits and welfare.	5. People oriented 5.1 Employment management 5.2 Benefits and caring 5.3 Development and training
<b>B1: 僱傭</b>	一般披露	有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	5. 以人為本 5.1 僱傭管理 5.2 福利關愛 5.3 發展及培訓
	B1.1	Total workforce by gender, employment type (such as full-time or part-time), age group and geographical region.	5. People oriented
	B1.1	按性別、僱傭類型(如全職或兼職)、年齡組別及地區劃分的僱員總數。	5. 以人為本
	B1.2	Employee turnover rate by gender, age group and geographical region.	5. People oriented
	B1.2	按性別、年齡組別及地區劃分的僱員流失比率。	5. 以人為本
<b>B2: Health and Safety</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	4.2 Safe production management 5.4 Health and Safety
<b>B2: 健康與安全</b>	一般披露	有關提供安全工作環境及保障僱員避免職業性危害的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	4.2 安全生產管理 5.4 健康與安全
	B2.1	The number and rate of work-related fatalities in each of the past three years (including the reporting year).	5.4 Health and Safety
	B2.1	過去三年(包括匯報年度)每年因工亡故的人數及比率。	5.4 健康與安全

## ESG Report (Continued)

## 環境、社會及管治報告(續)

Environment aspect 環境範疇		Related sections 相關章節	
	B2.2	Number of days lost due to work-related injuries.	5.4 Health and Safety
	B2.2	因工傷損失工作日數。	5.4 健康與安全
	B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	4.2 Safe production management 5.4 Health and Safety
	B2.3	描述所採納的職業健康與安全措施，以及相關執行及監察方法。	4.2 安全生產管理 5.4 健康與安全
<b>B3:</b>	General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work.	5.3 Development and training
<b>Development and Training</b>	一般披露	Description of training activities.	
<b>B3：發展及培訓</b>	一般披露	有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。	5.3 發展及培訓
	B3.1	The percentage of employees trained by gender and employee category.	5.3 Development and training
	B3.1	按性別及僱員類別劃分的受訓僱員百分比。	5.3 發展及培訓
	B3.2	Average number of hours of training completed by each employee by gender and employee category.	5.3 Development and training
	B3.2	按性別及僱員類別劃分，每名僱員完成受訓的平均時數。	5.3 發展及培訓
<b>B4:</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	5.1 Employment management
<b>Labor standards</b>	一般披露	有關防止童工或強制勞工的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	5.1 僱傭管理
<b>B4：勞工準則</b>	一般披露		
	B4.1	Description of measures to review employment practices to avoid child and forced labor.	5.1 Employment management
	B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。	5.1 僱傭管理

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Environment aspect 環境範疇			Related sections 相關章節
	B4.2	Description of steps taken to eliminate such practices when violation is discovered.	5.1 Employment management
	B4.2	描述在發現違規情況時消除有關情況所採取的步驟。	5.1 僱傭管理
<b>B5: Supply Chain Management</b>	General disclosure	Policies on managing environmental and social risks of the supply chain.	4.6 Supply chain management
<b>B5 : 供應鏈管理</b>	一般披露	管理供應鏈的環境及社會風險政策。	4.6 供應鏈管理
	B5.1	Number of suppliers by geographical region.	4.6 Supply chain management
	B5.1	按地區劃分的供應商數目。	4.6 供應鏈管理
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	4.6 Supply chain management
	B5.2	描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法。	4.6 供應鏈管理
	B5.3	Describe the practices for identifying environmental and social risks at each stage of the supply chain, and how they are implemented and monitored.	4.6 Supply chain management
	B5.3	描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。	4.6 供應鏈管理
	B5.4	Describe the practices that promote the use of environmentally friendly products and services when selecting suppliers, and how they are implemented and monitored.	4.6 Supply chain management
	B5.4	描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。	4.6 供應鏈管理

## ESG Report (Continued)

## 環境、社會及管治報告(續)

Environment aspect 環境範疇		Related sections 相關章節	
<b>B6: Product Responsibility</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	4.1 Quality management 4.2 Safe production management
	<b>B6：產品責任</b>	一般披露	有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	4.1 Quality management
	B6.1	已售或已運送產品總數中因安全與健康理由而須回收的百分比。	4.1 質量管理
	B6.2	Number of products and service related complaints received and how they are dealt with.	4.1 Quality management
	B6.2	接獲關於產品及服務的投訴數目以及應對方法。	4.1 質量管理
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	4.4.2. Protection of intellectual property rights
	B6.3	描述與維護及保障知識產權有關的慣例	4.4.2. 保護知識產權
	B6.4	Description of quality assurance process and recall procedures.	4.1 Quality management 4.2 Safe production management
	B6.4	描述質量檢定過程及產品回收程序。	4.1 質量管理 4.2 安全生產管理
	B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	4.5 Protection of interests
	B6.5	描述消費者數據保障及私隱政策，以及相關執行及監察方法。	4.5 權益保障

## ESG Report (Continued)

### 環境、社會及管治報告(續)

Environment aspect 環境範疇		Related sections 相關章節	
<b>B7: Anti-corruption</b>	General disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	4.3 Anti-corruption
<b>B7：反貪污</b>	一般披露	有關防止賄賂、勒索、欺詐及洗黑錢的：(a)政策；及(b)遵守對發行人有重大影響的相關法律及規例的資料。	4.3 反貪污
	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the Reporting Period and the outcomes of the cases.	4.3 Anti-corruption
	B7.1	於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。	4.3 反貪污
	B7.2	Description of preventive measures and whistleblowing procedures, and how they are implemented and monitored.	4.3 Anti-corruption
	B7.2	描述防範措施及舉報程序，以及相關執行及監察方法。	4.3 反貪污
	B7.3	Description of anti-corruption training provided to directors and employees.	4.3 Anti-corruption
	B7.3	描述向董事及員工提供的反貪污培訓。	4.3 反貪污





**ESG Report (Continued)**

## 環境、社會及管治報告(續)

<b>Environment aspect</b>			<b>Related sections</b>	
環境範疇			相關章節	
<b>B8: Community investment</b>	General disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	6.	Supporting agriculture and public welfare
<b>B8: 社區投資</b>	一般披露	有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。	6.	助農、公益
	B8.1	Focus areas of contribution.	6.	Supporting agriculture and public welfare
	B8.1	專注貢獻範疇。	6.	助農、公益
	B8.2	Resources contributed to the focus areas.	6.	Supporting agriculture and public welfare
	B8.2	在專注範疇所動用資源。	6.	助農、公益

## Independent Auditor's Report 獨立核數師報告



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**Independent auditor's report**  
**To the shareholders of**  
**China Boqi Environmental (Holding) Co., Ltd.**  
*(Incorporated in the Cayman Islands with limited liability)*

### OPINION

We have audited the consolidated financial statements of China Boqi Environmental (Holding) Co., Ltd. (the "**Company**") and its subsidiaries (the "**Group**") set out on pages 217 to 412, which comprise the consolidated statement of financial position as at 31 December 2022, and the consolidated statement of profit or loss and 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 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("**IFRSs**") issued by the International Accounting Standards Board ("**IASB**") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

**獨立核數師報告**  
**致中國博奇環保(控股)有限公司**  
*(於開曼群島註冊成立的有限公司)*  
**股東**

### 意見

我們已審核第217至412頁所載中國博奇環保(控股)有限公司(「**貴公司**」)及其附屬公司(統稱「**貴集團**」)之綜合財務報表，包括於2022年12月31日之綜合財務狀況表及截至該日止年度之綜合損益表及綜合收益表、綜合權益變動表及綜合現金流量表以及綜合財務報表附註，其中包括主要會計政策概要。

我們認為，綜合財務報表已按照國際會計準則委員會(「**國際會計準則委員會**」)頒佈的國際財務報告準則(「**國際財務報告準則**」)真實公平地反映 貴集團於2022年12月31日之綜合財務狀況以及其於截至該日止年度之綜合財務表現及其綜合現金流量，並已按照香港公司條例之披露規定妥為編製。



## Independent Auditor's Report (Continued)

### 獨立核數師報告(續)

#### BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing (“**HKSAs**”) issued by the Hong Kong Institute of Certified Public Accountants (“**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 the 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.

#### 意見基準

我們已按照香港會計師公會(「香港會計師公會」)頒佈的香港核數準則(「香港核數準則」)進行審核工作。我們按上述準則而履行的責任進一步詳述於本報告核數師對審核綜合財務報表的責任一節。我們根據香港會計師公會職業會計師道德守則(「該守則」)獨立於 貴集團，並已根據該守則履行其他道德責任。我們相信，我們所取得的審核憑證就提出審核意見基礎而言屬充分及恰當。

#### 關鍵審核事項

根據我們的專業判斷，關鍵審核事項為我們審核本期間的綜合財務報表中最重要的事項。我們在審核整體綜合財務報表及就此達致意見時處理此等事項，而不會就此等事項單獨發表意見。就以下事項而言，關於我們的審核如何處理有關事項的表述均以此為準。

我們已履行本報告內「核數師就審核綜合財務報表承擔的責任」一節所述的責任，包括與此等事項相關之責任。據此，我們的審核範圍包括旨在回應我們對綜合財務報表進行重大錯誤陳述風險評估的程序的表現。審核程序(包括為處理下列事項而進行的程序)的結果為我們就隨附綜合財務報表發表審核意見提供基礎。

## Independent Auditor's Report (Continued)

## 獨立核數師報告(續)

## KEY AUDIT MATTERS (Continued)

## 關鍵審核事項(續)

## Key audit matter

## 關鍵審核事項

## How our audit addressed the key audit matter

## 我們的審計如何處理關鍵審核事項

Revenue from construction contracts  
建造合約的收益

We identified the revenue from construction contracts as a key audit matter due to the fact that the amount recognised was significant in the consolidated financial statements and the accounting treatments of which required significant estimations made by the directors of the Company.

The Group's revenue from construction contracts is recognised over time based on the stage of completion of the contracts, which is determined as the proportion of the costs incurred relative to the estimated total costs to complete the contracts.

The directors of the Company estimate both of the profit margin and contract costs at the beginning for each contract, revise the estimations of both profit margin and contract costs through regular reviews when the directors of the Company consider there are changes in the assumptions throughout the contract period.

The accounting policies, significant estimates and related disclosures are included in notes 2.4, 3 and 5 to the consolidated financial statements.

由於確認金額對該等綜合財務報表影響重大，且其會計處理方式涉及 貴公司董事的重大會計估計，因此我們將建造合約收益認定為關鍵審核事項。

貴集團的建造合約收益乃根據合約完成階段確認，而合約完成階段按所產生的成本佔完成合約的估計總成本的比例釐定。

貴公司董事在初始對各合約的毛利率及合約成本作出估計，在 貴公司董事認為整個合約期間的假設發生變化時，通過定期檢討來修訂有關毛利率及合約成本的估計。

會計政策、重要估計及相關披露載於綜合財務報表附註 2.4、3及5。

Our procedures in relation to revenue from construction contracts included:

- Evaluating the design and operating effectiveness of controls relevant to our audit on budget preparation and revenue recognition of construction contracts;
- Recalculating the proportion of the costs incurred relative to the estimated total costs to complete the contracts on a sampling basis;
- Evaluating the key assumptions adopted by the directors of the Company in determining the profit margin and total contract costs by cross-checking to the corresponding construction contracts and the respective budgets;
- Examining construction costs incurred during the year by tracing the supporting documentation on a sampling basis; and
- Reviewing the adequacy of the related disclosures included in the consolidated financial statements.

我們針對建造合約收益執行的程序包括：

- 對與建築合約預算編製及收益確認的審核相關的控制之設計及運作效率進行評價；
- 按抽樣基準重新計算所產生的成本佔完成合約的估計總成本之比例；
- 通過交叉檢查相應建築工程及相關預算，評估 貴公司董事於釐定合約利潤及合約成本總額採用的主要假設；
- 按抽樣基準追蹤證明文件，檢驗年內產生的建造成本；及
- 檢討綜合財務報表內的相關披露是否充份。

## Independent Auditor's Report (Continued)

### 獨立核數師報告(續)

#### 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.

#### 年報所載的其他資料

貴公司董事須對其他資料負責。其他資料包括載於年報的資料，惟不包括綜合財務報表及我們的核數師報告。

我們對綜合財務報表作出的意見並無涵蓋其他資料，而我們不會對其他資料發表任何形式的核證結論。

就審核綜合財務報表而言，我們的責任為閱讀其他資料，從而考慮其他資料是否與綜合財務報表或我們在審核過程中獲悉的資料存在重大不符，或似乎存在重大錯誤陳述的情況。倘若我們基於已進行的工作認為其他資料存在重大錯誤陳述，我們須報告有關事實。就此而言，我們沒有任何報告。

## Independent Auditor's Report (Continued)

### 獨立核數師報告(續)

#### 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 IFRSs issued by the IASB 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.

#### 董事對綜合財務報表須承擔的責任

貴公司董事須遵照國際會計準則理事會頒佈之國際財務報告準則及香港公司條例的披露規定，負責編製作出真實公平反映之綜合財務報表，以及落實董事認為就編製綜合財務報表必要之有關內部監控，以使綜合財務報表並無重大錯誤陳述（不論因欺詐或錯誤）。

在編製綜合財務報表時，貴公司董事須負責評估貴集團持續經營的能力，並披露與持續經營有關的事項（如適用）。除非貴公司董事擬將貴集團清盤或停止營運，或除此之外並無其他實際可行的辦法，否則須採用以持續經營為基礎的會計法。

貴公司董事由審核委員會協助履行監督貴集團財務報告過程的責任。



## Independent Auditor's Report (Continued)

### 獨立核數師報告(續)

#### 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 HKSA's 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 HKSA's, 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.

#### 核數師對審核綜合財務報表的責任

我們的目標為合理確定綜合財務報表整體而言不會存在由於欺詐或錯誤而導致的重大錯誤陳述，並發出載有我們意見的核數師報告。我們僅向閣下(作為整體)報告，除此之外，我們的報告不作其他用途。我們概不就本報告的內容對任何其他人士負責或承擔任何責任。

合理保證屬高水平的保證，惟根據香港核數準則進行的審計工作不能保證總能察覺所存在的重大錯誤陳述。錯誤陳述可因欺詐或錯誤產生，倘個別或整體在合理預期情況下可影響使用者根據此等綜合財務報表作出的經濟決定時，則被視為重大錯誤陳述。

在根據香港核數準則進行審計的過程中，我們運用專業判斷，保持專業懷疑態度。我們亦：

- 識別及評估由於欺詐或錯誤而導致綜合財務報表存在重大錯誤陳述的風險、設計及執行審計程序以應對該等風險，以及獲取充足和適當的審計憑證，作為我們的意見的基礎。由於欺詐可能涉及串謀、偽造、蓄意遺漏、虛假陳述或凌駕內部監控的情況，因此未能發現因欺詐而導致的重大錯誤陳述的風險高於未能發現因錯誤而導致的重大錯誤陳述的風險。
- 了解與審計相關的內部監控，以設計在有關情況下屬適當的審計程序，惟並非旨在對貴集團內部監控的有效性發表意見。

## Independent Auditor's Report (Continued)

## 獨立核數師報告(續)

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

*(Continued)*

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
  - Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
  - Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
  - Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- 評估董事所採用會計政策的恰當性及作出會計估計和相關披露的合理性。
  - 對董事採用持續經營會計基礎的恰當性作出結論，並根據所獲取的審計憑證，確定是否存在與事項或情況有關的重大不確定性，從而可能導致對貴集團的持續經營能力產生重大疑慮。倘我們認為存在重大不確定性，則有必要在核數師報告中提請使用者注意綜合財務報表中的相關披露。倘有關披露不足，則修訂我們的意見。我們的結論乃基於截至核數師報告日期止所取得的審計憑證。然而，未來事項或情況可能導致貴集團無法持續經營。
  - 評估綜合財務報表的整體呈報方式、結構及內容，包括披露資料，以及綜合財務報表是否中肯反映相關交易及事項。
  - 就貴集團內實體或業務活動的財務資料獲取充足及適當的審計憑證，以便對綜合財務報表發表意見。我們負責集團審計的方向、監督及執行。我們僅對我們的審計意見承擔責任。

## 核數師對審核綜合財務報表的責任(續)





## Independent Auditor's Report (Continued)

### 獨立核數師報告(續)

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

(Continued)

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

24 March 2023

#### 核數師對審核綜合財務報表的責任(續)

我們與審核委員會就(其中包括)審計的計劃範圍、時間安排及重大審計發現溝通,該等發現包括我們在審計過程中識別的內部監控的任何重大缺失。

我們亦向審核委員會作出聲明,指出我們已符合有關獨立性的相關道德要求,並與彼等溝通可能被合理認為會影響我們的獨立性的所有關係及其他事宜,以及(如適用)為消除威脅所採取的行動或所應用的防範措施。

從與審核委員會溝通的事項中,我們釐定對本期間綜合財務報表的審計至關重要的事項,因而構成關鍵審計事項。我們在核數師報告中描述該等事項,除非法律或法規不允許公開披露該等事項,或在極端罕見的情況下,倘合理預期在我們的報告中溝通某事項造成的不利後果超出產生的公眾利益,則我們決定不應在報告中傳達該事項。

出具本獨立核數師報告的審計項目合夥人為張明益。

#### 安永會計師事務所

執業會計師

香港

2023年3月24日

## Consolidated Statement of Profit or Loss

### 綜合損益表

Year ended 31 December 2022  
截至2022年12月31日止年度

		Notes 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Revenue	收入	5	1,900,248	2,092,172
Cost of sales and services	銷售及服務成本		(1,509,470)	(1,704,613)
Gross profit	毛利		390,778	387,559
Other income and gains	其他收入及收益	6	214,861	151,137
Other expense and losses	其他開支及虧損		(247,092)	(14,574)
Selling and distribution expenses	銷售及分銷開支		(19,910)	(30,189)
Administrative expenses	行政開支		(89,726)	(89,546)
Research and development expenses	研發開支		(58,662)	(40,040)
Impairment losses on financial and contract assets	金融資產及合約資產的減值虧損	7	(15,078)	892
Share of profit of an associate	分佔一家聯營公司溢利	7	14,395	30,601
Finance costs	財務成本	8	(13,667)	(9,786)
<b>PROFIT BEFORE TAX</b>	<b>除稅前溢利</b>	7	<b>175,899</b>	386,054
Income tax expenses	所得稅開支	10	(20,241)	(37,652)
<b>PROFIT FOR THE YEAR</b>	<b>年內溢利</b>		<b>155,658</b>	348,402
Profit attributable to:	以下應佔溢利：			
Owners of the parent	母公司擁有人		151,749	348,239
Non-controlling interests	非控股權益		3,909	163
			<b>155,658</b>	348,402
<b>EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT</b>	母公司普通股權益持有人應佔每股盈利	12		
– Basic (RMB)	– 基本(人民幣)		0.15	0.35
– Diluted (RMB)	– 攤薄(人民幣)		0.15	0.35

## Consolidated Statement of Comprehensive Income

### 綜合收益表

Year ended 31 December 2022  
截至2022年12月31日止年度

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>PROFIT FOR THE YEAR</b>	年內溢利	<b>155,658</b>	348,402
<b>OTHER COMPREHENSIVE INCOME</b>	其他全面收益		
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:	於往後期間不會重新分類至損益的其他全面收益：		
Equity investment designated at fair value through other comprehensive income:	指定按公允價值計入其他全面收益的股權投資：		
Changes in fair value	公允價值變動	<b>916</b>	-
Net other comprehensive income that will not be reclassified to profit or loss in subsequent periods	於往後期間不會重新分類至損益的其他全面收益淨額	<b>916</b>	-
<b>OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX</b>	年內其他全面收益， 經扣除稅項	<b>916</b>	-
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>	年內全面收益總額	<b>156,574</b>	348,402
Total comprehensive income attributable to:	以下應佔全面收益總額：		
Owners of the parent	母公司擁有人	<b>152,665</b>	348,239
Non-controlling interests	非控股權益	<b>3,909</b>	163
		<b>156,574</b>	348,402

## Consolidated Statement of Financial Position

### 綜合財務狀況表

31 December 2022  
2022年12月31日

	Notes 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>NON-CURRENT ASSETS</b>			
			<b>非流動資產</b>
Property, plant and equipment	13	627,349	590,267
Investment properties	14	9,627	10,271
Goodwill	16	6,488	147,957
Other intangible assets	17	576,797	650,714
Receivables under service concession arrangement	18	492,005	316,691
Investment in an associate	19	63,895	80,101
Equity investment designated at fair value through other comprehensive income	20	5,166	-
Long-term receivable		49,254	45,548
Contract assets	24	16,785	202,027
Amounts due from related parties	43	138,125	138,852
Deferred tax assets	32	45,656	33,158
Other non-current assets		55,046	98,606
<b>Total non-current assets</b>		<b>2,086,193</b>	<b>2,314,192</b>
<b>CURRENT ASSETS</b>			
			<b>流動資產</b>
Receivables under service concession arrangement	18	49,762	24,865
Debt instruments at fair value through other comprehensive income	26	287,538	284,168
Inventories	21	33,129	29,549
Financial assets at fair value through profit or loss	25	24,661	178,771
Contract assets	24	420,655	240,308
Trade receivables	22	872,121	885,420
Prepayments, deposits and other receivables	23	217,946	157,426
Amounts due from related parties	43	232,545	177,547
Pledged time deposits and bank balances	27	98,266	142,009
Cash and cash equivalents	27	402,488	342,958
<b>Total current assets</b>		<b>2,639,111</b>	<b>2,463,021</b>
<b>CURRENT LIABILITIES</b>			
			<b>流動負債</b>
Trade and bills payables	28	1,134,240	1,136,336
Other payables, deposits received and accrued expenses	29	341,495	392,200
Contract liabilities	30	109,009	116,197
Income tax payable		44,890	26,222
Interest-bearing bank and other borrowings	31	92,108	82,566
Lease liabilities	15	3,529	3,264
Amounts due to related parties	43	7,249	15,701

## Consolidated Statement of Financial Position (Continued)

## 綜合財務狀況表(續)

31 December 2022  
2022年12月31日

		Notes 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Total current liabilities	流動負債總額		1,732,520	1,772,486
<b>NET CURRENT ASSETS</b>	<b>流動資產淨值</b>		<b>906,591</b>	690,535
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>	<b>資產總額減流動負債</b>		<b>2,992,784</b>	3,004,727
<b>NON-CURRENT LIABILITIES</b>	<b>非流動負債</b>			
Interest-bearing bank and other borrowings	計息銀行及其他借款	31	82,029	83,399
Lease liabilities	租賃負債	15	35,092	35,020
Deferred tax liabilities	遞延稅項負債	32	26,735	28,942
Contingent consideration	或然代價	33	—	10,060
Long-term payable	長期應付款項	34	—	99,420
Total non-current liabilities	非流動負債總額		143,856	256,841
<b>Net assets</b>	<b>資產淨值</b>		<b>2,848,928</b>	2,747,886
<b>EQUITY</b>	<b>權益</b>			
Equity attributable to owners of the parent	母公司擁有人應佔權益			
Share capital	股本	36	67	67
Treasury shares	庫存股份		(1)	(1)
Other reserves	其他儲備	37	2,834,437	2,741,045
			2,834,503	2,741,111
<b>Non-controlling interests</b>	<b>非控股權益</b>		<b>14,425</b>	6,775
<b>Total equity</b>	<b>權益總額</b>		<b>2,848,928</b>	2,747,886

Zhijun Zeng

曾之後

Director

董事

# Consolidated Statement of Changes in Equity

## 綜合權益變動表

Year ended 31 December 2022  
截至2022年12月31日止年度

Notes	附註	Attributable to owners of the parent 母公司擁有人應佔										
		Share capital	Share premium	Treasury shares	Merger reserve	Other reserve	Fair value reserve of financial assets at fair value through other comprehensive income	Statutory surplus reserve	Retained profits	Sub-total	Non-controlling interests	Total equity
		RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	67	861,562	(1)	371,500	(128,167)	-	266,170	1,080,776	2,451,907	(1,089)	2,450,818
Profit for the year	年內溢利	-	-	-	-	-	-	-	348,239	348,239	163	348,402
<b>Total comprehensive income for the year</b>	<b>年內全面收益總額</b>	-	-	-	-	-	-	-	348,239	348,239	163	348,402
Transfer to statutory surplus reserve	轉撥至法定盈餘儲備	-	-	-	-	-	-	25,103	(25,103)	-	-	-
Final 2020 dividend declared	已宣派2020年末期股息	-	-	-	-	-	-	-	(62,073)	(62,073)	-	(62,073)
Repurchase and cancellation of ordinary shares	購回及註銷普通股	-	(1,486)	-	-	-	-	-	-	(1,486)	-	(1,486)
Share-based payments	以股份為基礎的付款	36	4,524	-	-	-	-	-	-	4,524	-	4,524
Acquisition of a subsidiary	收購一家附屬公司	38	-	-	-	-	-	-	-	-	-	3,701
Capital injection from non-controlling shareholders**	非控股股東注資**	-	-	-	-	-	-	-	-	-	4,000	4,000
At 31 December 2021 and 1 January 2022	於2021年12月31日及2022年1月1日	67	864,600	(1)	371,500	(128,167)	-	291,273	1,341,839	2,741,111	6,775	2,747,886
Profit for the year	年內溢利	-	-	-	-	-	-	-	151,749	151,749	3,909	155,658
Other comprehensive income for the year	年內其他全面收益	-	-	-	-	-	-	-	-	-	-	-
Equity investments designated at fair value through other comprehensive income, net of tax	指定為按公允價值計入其他全面收益的股權投資，扣除稅項	-	-	-	-	-	916	-	-	916	-	916
<b>Total comprehensive income for the year</b>	<b>年內全面收益總額</b>	-	-	-	-	-	916	-	151,749	152,665	3,909	156,574
Transfer to statutory surplus reserve	轉撥至法定盈餘儲備	-	-	-	-	-	-	15,264	(15,264)	-	-	-
Final 2021 dividend declared	已宣派2021年末期股息	11	-	-	-	-	-	-	(63,821)	(63,821)	-	(63,821)
Repurchase and cancellation of ordinary shares	購回及註銷普通股	-	(60)	-	-	-	-	-	-	(60)	-	(60)
Share-based payments	以股份為基礎的付款	36	4,334	-	-	-	-	-	-	4,334	-	4,334
Partial disposal of a subsidiary	部分出售附屬公司	-	-	-	274	-	-	-	-	274	1,241	1,515
Capital injection from non-controlling shareholders**	來自非控股股東的注資**	-	-	-	-	-	-	-	-	-	2,500	2,500
At 31 December 2022	於2022年12月31日	67	868,874*	(1)	371,500*	(127,893)*	916*	306,537*	1,414,503*	2,834,503	14,425	2,848,928

\* These reserve accounts comprise the consolidated other reserves of RMB2,834,437,000 (2021: RMB2,741,045,000) in the consolidated statement of financial position.

\*\* In 2022, Beijing Boqi Tianqi Environmental Protection Technology Co., Ltd received a capital injection of RMB2,000,000 from a non-controlling shareholder, and Handan Boqi Environmental Technology Co., Ltd. received a capital injection of RMB500,000 (2021: RMB4,000,000) from a non-controlling shareholder.

\* 該等儲備賬包括在綜合財務狀況表內的綜合其他儲備人民幣2,834,437,000元(2021年: 人民幣2,741,045,000元)。

\*\* 於2022年, 北京博奇天啟環保科技有限公司已從一名非控股股東收取注資金額人民幣2,000,000元, 而邯鄲博奇環保科技有限公司已從一名非控股股東收取注資金額人民幣500,000元(2021年: 人民幣4,000,000元)。

## Consolidated Statement of Changes in Equity (Continued)

### 綜合權益變動表(續)

Year ended 31 December 2022

截至2022年12月31日止年度

*Notes:*

*附註：*

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(i) Other reserves mainly represent the distribution amounting to RMB130,310,000 made to the shareholder in the form of settlement of a bank loan for the shareholder during the year ended 31 December 2016.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <p>(i) 其他儲備主要是於截至2016年12月31日止年度以為股東結算銀行貸款形式向股東作出金額為人民幣130,310,000元的分派。</p>                                                                                                  |
| <p>(ii) In accordance with the articles of association of all subsidiaries established in the People's Republic of China ("PRC"), PRC subsidiaries are required to set aside 10% of their profit after tax as per statutory financial statements determined under PRC laws and regulations for the statutory surplus reserve fund until the reserve reaches 50% of their registered capital. Transfer to this reserve must be made before distributing dividends to equity owners of the subsidiaries. The statutory surplus reserve can be used to make up for previous years' losses, expand the existing operations or converted into additional capital of the respective subsidiaries.</p> | <p>(ii) 根據於中華人民共和國(「中國」)成立的所有附屬公司的組織章程細則，中國附屬公司須將法定財務報表所示根據中國法律及法規釐定的除稅後溢利10%撥往法定盈餘儲備金，直至儲備達到其註冊資本50%。於分派股息予附屬公司權益擁有人前須先向該儲備撥款。法定盈餘儲備可用於抵銷過往年度虧損、擴展現有營運或轉換為相關附屬公司的額外資本。</p> |
| <p>(iii) The Group did not have material non-controlling interests during both years and hence disclosure of material non-controlling interests is not made.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p>(iii) 本集團於報告期間均無重大非控股權益，因此並無作出重大非控股權益披露。</p>                                                                                                                             |

## Consolidated Statement of Cash Flows

### 綜合現金流量表

Year ended 31 December 2022  
截至2022年12月31日止年度

	Notes 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Profit before tax		175,899	386,054
Adjustments for:			
Finance costs		13,667	9,786
Share of profit of an associate		(14,395)	(30,601)
Interest income	6	(11,064)	(15,660)
Profit from construction service under concession operation		(375)	(849)
Depreciation of property, plant and equipment	7	42,585	35,620
Depreciation of investment properties	7	644	808
Impairment of property, plant and equipment	7	-	479
Amortisation of other intangible assets	7	72,084	57,169
Impairment of other intangible assets	7	27,612	-
Amortisation of other non-current assets	7	8,115	6,514
Impairment of other non-current assets	7	-	3,513
Impairment of goodwill	7	141,469	-
Impairment/(reversal of impairment) of trade receivables	7	11,188	(5,382)
Impairment of other receivables	7	3,758	859
Impairment of long-term receivable	7	294	1,072
Impairment of contract assets	7	148	1,915
Impairment/(reversal of impairment) of amounts due from related parties	7	926	(1,735)
(Reversal of impairment)/impairment of receivables under service concession arrangement	7	(1,236)	2,379
(Reversal of provisions)/provisions for inventories	7	(190)	160
Gain on disposal of an investment in an associate	6	-	(1,101)
Loss/(gain) on disposal of non-current assets		2,437	(153)
Loss/(gain) on fair value changes in financial assets at fair value through profit or loss		9,536	(106,362)
Loss/(gain) on disposal of equity investments at fair value through profit or loss		63,134	(4,586)
Dividend income from financial assets at fair value through profit or loss	6	(1,533)	(4,423)
Gain on fair value adjustment of contingent consideration	6	(10,060)	-
Gain on adjustment of acquisition consideration		(160,921)	-
Share-based payment expenses	7	4,334	4,524
Foreign exchange difference, net		(11,930)	6,965



## Consolidated Statement of Cash Flows (Continued)

## 綜合現金流量表(續)

Year ended 31 December 2022  
截至2022年12月31日止年度

	Notes 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Operating cash flows before movements in working capital</b>	<b>營運資金變動前之經營現金流量</b>	<b>366,126</b>	346,965
Increase in inventories	存貨增加	<b>(3,390)</b>	(1,659)
Increase in contract assets	合約資產增加	<b>(134,465)</b>	(296,700)
Decrease/(increase) in trade receivables	貿易應收款項減少／(增加)	<b>113,195</b>	(167,825)
Decrease in prepayments, deposits and other receivables	預付款項、按金及其他應收款項減少	<b>10,479</b>	65,228
Decrease in receivables under service concession arrangement	服務特許經營安排的應收款項減少	<b>19,274</b>	23,479
Increase in debt instruments at fair value through other comprehensive income	按公允價值計入其他全面收益的債務工具增加	<b>(3,370)</b>	(98,812)
Increase in amounts due from related parties	應收關連方款項增加	<b>(55,637)</b>	(43,429)
Decrease/(increase) in trade and bills payables	貿易應付款項及應付票據減少／(增加)	<b>(2,096)</b>	102,259
Increase/(decrease) in other payables, deposits received and accrued expenses	其他應付款項、已收按金及應計開支增加／(減少)	<b>20,704</b>	(16,074)
(Decrease)/increase in contract liabilities	合約負債(減少)／增加	<b>(175,436)</b>	44,324
(Decrease)/increase in amounts due to related parties	應付關連方款項(減少)／增加	<b>(8,452)</b>	8,095
Cash generated from/(used in) operations	經營所得／(所用)現金	<b>146,932</b>	(34,149)
Interest received	已收利息	<b>6,431</b>	10,092
Income tax paid	已付所得稅	<b>(16,319)</b>	(31,808)
<b>Net cash flows from/(used in) operating activities</b>	<b>經營活動所得／(所用)現金淨額</b>	<b>137,044</b>	(55,865)

## Consolidated Statement of Cash Flows (Continued)

## 綜合現金流量表(續)

Year ended 31 December 2022  
截至2022年12月31日止年度

		2022	2021
		2022年	2021年
	Note	RMB'000	RMB'000
	附註	人民幣千元	人民幣千元
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>	<b>來自投資活動之現金流量</b>		
Placement of pledged bank deposits	存入已抵押銀行存款	<b>(345,667)</b>	(763,277)
Withdrawal of pledged bank deposits	提取已抵押銀行存款	<b>389,410</b>	714,171
Interest received	已收利息	<b>860</b>	1,568
Proceeds from disposal of an associate	出售聯營公司所得款項	–	3,980
Dividend received from an associate	自聯營公司收取股息	<b>30,601</b>	17,573
Dividend received from financial assets at fair value through profit or loss	自按公允價值計入損益的金融資產收取股息	<b>1,533</b>	4,423
Proceed on disposal of financial assets at fair value through profit or loss	出售按公允價值計入損益的金融資產所得款項	<b>84,493</b>	11,572
Purchase of property, plant and equipment	購買物業、廠房及設備	<b>(84,892)</b>	(64,376)
Proceeds from disposal of property, plant and equipment	出售物業、廠房及設備所得款項	<b>398</b>	221
Purchase of intangible assets and cost capitalised under service concession arrangements	購買無形資產及服務特許經營安排的資本化費用	<b>(25,408)</b>	(3,006)
Acquisition of financial assets at fair value through profit or loss	購買按公允價值計入損益的金融資產	<b>(3,054)</b>	(33,797)
Purchases of equity investment designated at fair value through other comprehensive income	購買指定為按公允價值計入其他全面收益的股權投資	<b>(4,250)</b>	–
Decrease of advance to related parties	向關連方墊款減少	<b>440</b>	313
Acquisition of a subsidiary	收購附屬公司	<b>(49,690)</b>	(5,662)
Purchase of other non-current assets	購買其他非流動資產	<b>(17,679)</b>	(12,906)
<b>Net cash flows used in investing activities</b>	<b>投資活動所用現金淨額</b>	<b>(22,905)</b>	(129,203)

**Consolidated Statement of Cash Flows (Continued)**

## 綜合現金流量表(續)

Year ended 31 December 2022  
截至2022年12月31日止年度

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
	<i>Note</i> 附註		
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>	<b>來自融資活動之現金流量</b>		
New bank and other borrowings raised	新籌得銀行及其他借款	<b>73,500</b>	50,000
Capital injection from non-controlling shareholders	來自非控股股東的注資	<b>2,500</b>	4,000
Proceeds from discounted notes receivable from banks	銀行已貼現應收票據所得款項	<b>22,313</b>	50,009
Repayment of principal portion of lease liabilities	償還租賃負債的本金部分	<b>(1,722)</b>	(1,722)
Repurchase of ordinary shares	購回普通股	<b>(60)</b>	(1,486)
Repayments of bank borrowings	償還銀行借款	<b>(87,641)</b>	(14,898)
Interest paid	已付利息	<b>(11,608)</b>	(7,967)
Dividends paid	已付股息	<b>(63,821)</b>	(62,073)
<b>Net cash flows (used in)/from financing activities</b>	<b>融資活動(所用)/所得現金淨額</b>	<b>(66,539)</b>	15,863
<b>NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>現金及現金等價物增加/(減少)淨額</b>	<b>47,600</b>	(169,205)
<b>Cash and cash equivalents at beginning of year</b>	<b>於年初之現金及現金等價物</b>	<b>342,958</b>	519,128
<b>Effect of foreign exchange rate changes, net</b>	<b>匯率變動之影響淨額</b>	<b>11,930</b>	(6,965)
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>於年終之現金及現金等價物</b>	<b>402,488</b>	342,958

## Notes to the Consolidated Financial Statements

### 綜合財務報表附註

31 December 2022  
截至2022年12月31日止年度

#### 1. CORPORATE AND GROUP INFORMATION

China Boqi Environmental (Holding) Co., Ltd. (the “**Company**”) was incorporated as an exempted company with limited liability in the Cayman Islands on 30 January 2015 and its shares were listed on the Main Board of The Stock Exchange of Hong Kong Limited on 16 March 2018. The addresses of the registered office of the Company and principal place of business of the Company and its subsidiaries (collectively referred to as the “**Group**”) are disclosed in the section headed “Corporate Information” in the annual report.

The Company is an investment holding company. During the year, the Group was involved in the following principal activities:

- Flue gas treatment business
- Water treatment business
- Hazardous and solid waste treatment/disposal service
- Dual-carbon energy saving business

In the opinion of the directors of the Company (“**Directors**”), there is no single entity that could be considered as the ultimate holding company.

#### 1. 公司及集團資料

中國博奇環保(控股)有限公司(「**本公司**」)於2015年1月30日在開曼群島註冊成立為獲豁免有限公司，其股份於2018年3月16日在香港聯合交易所有限公司主板上市。本公司的註冊辦事處及本公司及其附屬公司(統稱「**本集團**」)的主要營業地點的地址披露於年報「公司資料」一節。

本公司為投資控股公司。年內，本集團從事以下主要業務：

- 煙氣處理業務
- 水處理業務
- 危固廢處理處置業務
- 雙碳節能業務

本公司董事(「**董事**」)認為，並無單一實體被視為最終控股公司。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 1. CORPORATE AND GROUP INFORMATION 1. 公司及集團資料(續)

(Continued)

### Information about subsidiaries

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

有關附屬公司的資料

有關本公司主要附屬公司之詳情如下：

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 註冊及營業地點	Issued ordinary/registered share capital 已發行普通股/ 註冊股本	Percentage of equity attributable to the Company 本公司應佔權益百分比		Principal activities 主要業務
			Direct 直接	Indirect 間接	
CBEE Holdings Co., Ltd. ("CBEE")*	British Virgin Islands ("BVI") 英屬處女群島	–	100%	–	Investment holding 投資控股
Beijing Shengyi Tiancheng Environmental SCI-TECH Co., Ltd. ("Beijing Shengyi")*	PRC/Mainland China 中國/中國大陸	RMB521,500,000 人民幣521,500,000元	100%	–	Investment holding 投資控股
Beijing Bosheng Environmental SCI – TECH Co., Ltd. 北京博聖環保科技有限公司	PRC/Mainland China 中國/中國大陸	RMB10,000,000 人民幣10,000,000元	–	100%	Investment holding 投資控股
Beijing Boqi Electric Power SCI – TECH Co., Ltd. ("Beijing Boqi")	PRC/Mainland China 中國/中國大陸	RMB550,000,000 人民幣550,000,000元	–	100%	Environmental protection facilities engineering, operation and maintenance services 環保設施工程、 運營與維護服務
Jiangxi Jinggangshan Boqi Environmental Technology Co., Ltd. ("Jinggangshan Boqi")	PRC/Mainland China 中國/中國大陸	RMB81,000,000 人民幣81,000,000元	–	100%	Concession operation services 特許經營服務

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 1. CORPORATE AND GROUP INFORMATION (Continued)

## 1. 公司及集團資料(續)

## Information about subsidiaries (Continued)

## 有關附屬公司的資料(續)

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 註冊及營業地點	Issued ordinary/registered share capital 已發行普通股/ 註冊股本	Percentage of equity attributable to the Company		Principal activities 主要業務
			Direct 直接	Indirect 間接	
Shanxi Puzhou Boqi Environmental Technology Co., Ltd. ("Puzhou Boqi") 山西蒲州博奇環保科技有限公司 (「蒲州博奇」)	PRC/Mainland China 中國/中國大陸	RMB55,000,000 人民幣55,000,000元	-	100%	Concession operation services 特許經營服務
Shanxi Hejin Boqi Environmental Technology Co., Ltd. ("Hejin Boqi") 山西河津博奇環保科技有限公司 (「河津博奇」)	PRC/Mainland China 中國/中國大陸	RMB25,000,000 人民幣25,000,000元	-	100%	Concession operation services 特許經營服務
Anhui Nengda Fuel Co., Ltd. 安徽能達燃料有限公司	PRC/Mainland China 中國/中國大陸	RMB20,000,000 人民幣20,000,000元	-	100%	Sale of coal and chemicals 煤及化學品銷售
Shanxi Bo Yuan Qi Cheng Environmental Equipment Service Co., Ltd. 山西博源奇晟環保設備服務有限公司	PRC/Mainland China 中國/中國大陸	RMB10,000,000 人民幣10,000,000元	-	100%	Operation and maintenance services 運營與維護服務
Changjizhou Boqi Environmental Technology Co., Ltd. ("Changjizhou Boqi") 昌吉州博奇環保科技有限公司 (「昌吉州博奇」)	PRC/Mainland China 中國/中國大陸	RMB140,000,000 人民幣140,000,000元	-	100%	Environmental protection facility engineering, operation and maintenance services, concession operation services 環保設施工程、運營與維護 服務、特許經營服務

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 1. CORPORATE AND GROUP INFORMATION 1. 公司及集團資料(續)

(Continued)

### Information about subsidiaries (Continued)

### 有關附屬公司的資料(續)

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 註冊及營業地點	Issued ordinary/registered share capital 已發行普通股/ 註冊股本	Percentage of equity attributable to the Company		Principal activities 主要業務
			Direct 直接	Indirect 間接	
Beijing Boqi Environmental Remediation Tech Co., Ltd.	PRC/Mainland China	RMB10,000,000	-	60%	Technology services, engineering and exploration services 技術服務、工程及勘探服務
北京博奇環境修復有限公司	中國/中國大陸	人民幣10,000,000元			
Huainan Boqi Environmental Technology Co., Ltd. ("Huainan Boqi")	PRC/Mainland China	RMB50,000,000	-	100%	Environmental protection facility engineering, operation and maintenance services 環保設施工程、 運營與維護服務
淮南博奇環保科技有限公司(「淮南博奇」)	中國/中國大陸	人民幣50,000,000元			
Laibin Boqi Environmental Technology Co., Ltd. ("Laibin Boqi")	PRC/Mainland China	RMB80,000,000	-	100%	Environmental protection facility engineering, operation and maintenance services 環保設施工程、 運營與維護服務
來賓博奇環保科技有限公司(「來賓博奇」)	中國/中國大陸	人民幣80,000,000元			
Changzhi Boqi Environmental Technology Co., Ltd. ("Changzhi Boqi")	PRC/Mainland China	RMB128,000,000	-	100%	Water treatment business 水處理業務
長治博奇環保科技有限公司(「長治博奇」)	中國/中國大陸	人民幣128,000,000元			
Tangshan Boqi Environmental Technology Co., Ltd.	PRC/Mainland China	RMB30,000,000	-	100%	Hazardous and solid waste treatment/ disposal service 危固廢處理處置服務
唐山博奇環保科技有限公司	中國/中國大陸	人民幣30,000,000元			

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 1. CORPORATE AND GROUP INFORMATION (Continued)

## 1. 公司及集團資料(續)

## Information about subsidiaries (Continued)

## 有關附屬公司的資料(續)

Name 名稱	Place of incorporation/ registration and business 註冊成立/ 註冊及營業地點	Issued ordinary/registered share capital 已發行普通股/ 註冊股本	Percentage of equity attributable to the Company		Principal activities 主要業務
			Direct 直接	Indirect 間接	
Handan Boqi Environmental Technology Co., Ltd. ("Handan Boqi") 邯鄲博奇環保科技有限公司(「邯鄲博奇」)	PRC/Mainland China 中國/中國大陸	RMB75,000,000 人民幣75,000,000元	-	70%	Dual-carbon energy saving services 雙碳節能服務
Qinghai Boqi Ecological Environmental Technology Co., Ltd. ("Qinghai Boqi") 青海博奇生態環境科技有限公司 (「青海博奇」)	PRC/Mainland China 中國/中國大陸	RMB30,000,000 人民幣30,000,000元	-	92%	Hazardous and solid waste treatment/ disposal service 危固廢處理處置服務
Beijing Boqi Tianqi Environmental Protection Technology Co., Ltd. 北京博奇天啟環保科技有限公司	PRC/Mainland China 中國/中國大陸	RMB10,000,000 人民幣10,000,000元		60%	Water treatment business 水處理業務

\* Except for CBEE and Beijing Shengyi, all of the above subsidiaries are indirectly held by the Company.

\* 除CBEE及北京聖邑外，上述所有附屬公司均由本公司間接持有。

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.

上表列出董事認為主要影響年內業績或組成本集團資產淨值重大部分之本公司附屬公司。董事認為，如列出其他附屬公司詳情，會使篇幅過於冗長。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRSs”) (which include all IFRSs, International Accounting Standards (“IASs”) and Interpretations) issued by the International Accounting Standards Board (“IASB”) and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for debt investments, contingent consideration and equity investments which have been measured at fair value. These consolidated financial statements are presented in Renminbi (“RMB”) and all values are rounded to the nearest thousand except when otherwise indicated.

##### Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the “Group”) for the year ended 31 December 2022. 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).

#### 2.1 編製基準

本財務報表乃根據國際會計準則理事會(「國際會計準則理事會」)頒佈的國際財務報告準則(「國際財務報告準則」),包括所有國際財務報告準則、國際會計準則(「國際會計準則」)及詮釋)及香港公司條例的披露規定編製。本財務報表乃按歷史成本法編製,惟按公允價值計量的債務投資、或然代價及權益投資除外。本財務報表以人民幣(「人民幣」)呈列,而除另有列明者外,所有數值均四捨五入至最接近的千位數。

##### 綜合基準

綜合財務報表包括本公司及其附屬公司(統稱為「本集團」)截至2022年12月31日止年度的財務報表。附屬公司是由本公司直接或間接控制的實體(包括結構性實體)。當本集團通過參與被投資方的相關活動而承擔可變回報的風險或享有可變回報,並有能力運用其對被投資方的權力(即本集團有能力指導被投資方相關活動的現有權利)影響有關回報時,即取得控制權。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.1 BASIS OF PREPARATION (Continued)

## Basis of consolidation (Continued)

Generally, there is a presumption that a majority of voting rights results in control. 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.

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.

## 2.1 編製基準(續)

## 綜合基準(續)

一般而言，假定取得大多數投票權即導致取得控制權。當本集團直接或間接擁有少於被投資方大多數投票或類似權利的權利時，本集團於評估其是否擁有對被投資方的權力時會考慮一切相關事實及情況，包括：

- (a) 與被投資方其他投票持有人的合同安排；
- (b) 其他合同安排所產生的權利；及
- (c) 本集團的投票權及潛在投票權。

附屬公司的財務報表使用一致的會計政策按相同呈報期編製。附屬公司的業績自本集團獲得控制權時開始綜合入賬，於喪失控制權時則終止入賬。

損益及其它全面收益的各組成部分歸屬於本公司權益擁有人及非控股權益，即使其導致非控股權益出現虧蝕結餘。所有集團內公司間的資產及負債、權益、收入、開支及本集團成員公司間交易有關的現金流量於綜合入賬時全額抵銷。

倘事實及情況表明三項控制因素其中一項或多項改變，則本集團會重估是否仍然控制被投資方。附屬公司的擁有權權益變動(並無失去控制權)按股權交易方式入賬。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.1 BASIS OF PREPARATION (Continued)

##### Basis of consolidation (Continued)

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 IFRSs for the first time for the current year's financial statements.

Amendments to IFRS 3	<i>Reference to the Conceptual Framework</i>
Amendments to IAS 16	<i>Property, Plant and Equipment: Proceeds before Intended Use</i>
Amendments to IAS 37	<i>Onerous Contracts – Cost of Fulfilling a Contract</i>
<i>Annual Improvements to IFRS Standards 2018-2020</i>	Amendments to IFRS 1, IFRS 9, Illustrative Examples accompanying IFRS 16, and IAS 41

#### 2.1 編製基準(續)

##### 綜合基準(續)

倘本集團喪失對某一附屬公司的控制權，本集團會終止確認以下各項：(i)該附屬公司的資產(包括商譽)及負債；(ii)任何非控股權益的賬面值；及(iii)於權益內錄得的累計匯兌差額；並確認以下各項：(i)所收取代價的公允價值；(ii)所保留任何投資的公允價值；及(iii)因此出現的任何損益盈餘或虧絀。本集團分佔之前於其他全面收益確認的部分則重新分類至損益或保留溢利(視情況而定)，所依據基準與本集團直接出售相關資產或負債時所須遵循者相同。

#### 2.2 會計政策之變動及披露

本集團已於本年度財務報表首次採納以下經修訂國際財務報告準則。

國際財務報告準則第3號(修訂本)	概念框架的提述
國際會計準則第16號(修訂本)	物業、廠房及設備：未作擬定用途前的所得款項
國際會計準則第37號(修訂本)	虧損合約 – 履行合約的成本
國際財務報告準則2018年至2020年之年度改進	國際財務報告準則第1號、國際財務報告準則第9號、國際財務報告準則第16號相應闡釋範例及國際會計準則第41號之修訂

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

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

The nature and the impact of the revised IFRSs that are applicable to the Group are described below:

- (a) Amendments to IFRS 3 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* (the “**Conceptual Framework**”) issued in March 2018 without significantly changing its requirements. The amendments also add to IFRS 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 IAS 37 or IFRIC 21 if they were incurred separately rather than assumed in a business combination, an entity applying IFRS 3 should refer to IAS 37 or IFRIC 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 has applied the amendments prospectively to business combinations that occurred on or after 1 January 2022. As there were no business combinations during the year, the amendments did not have any impact on the financial position and performance of the Group.

## 2.2 會計政策之變動及披露(續)

下文列出適用於本集團的經修訂國際財務報告準則的性質及影響：

- (a) 國際財務報告準則第3號(修訂本)以2018年3月頒佈的引用財務報告概念框架(「概念框架」)取代引用先前財務報表編製及呈列框架，而毋須大幅度改變其規定。該等修訂亦就國際財務報告準則第3號就實體引用概念框架以釐定構成資產或負債的內容之確認原則增設一項例外情況。該例外情況規定，對於可能屬於國際會計準則第37號或國際財務報告詮釋第21號範圍內的負債及或然負債而言，倘該等負債屬單獨產生而非於企業合併中產生，則應用國際財務報告準則第3號的實體應分別參考國際會計準則第37號或國際財務報告詮釋第21號，而非概念框架。此外，該等修訂澄清或然資產於收購日期不符合確認條件。本集團已將該等修訂前瞻性地應用於2022年1月1日或之後發生的業務合併。由於年內並無業務合併，因此該等修訂對本集團的財務狀況及表現並無任何影響。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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## 2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (Continued) 2.2 會計政策之變動及披露(續)

- (b) Amendments to IAS 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 as determined by IAS 2 Inventories, in profit or loss. The Group has applied the amendments retrospectively to items of property, plant and equipment made available for use on or after 1 January 2021. Since there was no sale of items produced prior to the property, plant and equipment being available for use, the amendments did not have any impact on the financial position or performance of the Group.
- (b) 國際會計準則第16號(修訂本)禁止實體從物業、廠房及設備的成本中扣除有關項目達到管理層預定的可使用狀態(包括位置與條件)過程中產生的全部出售所得款項。反之,實體必須將該等項目的出售所得款項及按國際會計準則第2號存貨所釐定的該等項目的成本計入損益。本集團已將該等修訂追溯應用於2021年1月1日或之後可供使用的物業、廠房及設備項目。由於在物業、廠房及設備項目可供使用前並無出售該等項目,因此該等修訂對本集團的財務狀況或表現並無任何影響。
- (c) Amendments to IAS 37 clarify that for the purpose of assessing whether a contract is onerous under IAS 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 Group has applied the amendments prospectively to contracts for which it has not yet fulfilled all its obligations at 1 January 2022 and no onerous contracts were identified. Therefore, the amendments did not have any impact on the financial position or performance of the Group.
- (c) 國際會計準則第37號(修訂本)澄清,就根據國際會計準則第37號評估合約是否屬繁重性質而言,履行合約的成本包括與合約直接相關的成本。與合約直接相關的成本包括履行該合約的增量成本(例如直接勞工及材料)及與履行合約直接相關的其他成本分配(例如分配履行合約所用物業、廠房及設備項目的折舊開支以及合約管理及監管成本)。一般及行政成本與合約並無直接關連,除非根據合約明確向對手方收取費用,否則不包括在內。本集團已將該等修訂前瞻性地應用於2022年1月1日仍未履行其所有責任的合約,而並無識別任何虧損性合約。因此,該等修訂對本集團的財務狀況或表現並無任何影響。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

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

## 2.2 會計政策之變動及披露(續)

(d) *Annual Improvements to IFRS Standards 2018-2020* sets out amendments to IFRS 1, IFRS 9, Illustrative Examples accompanying IFRS 16, and IAS 41. Details of the amendment that is applicable to the Group are as follows:

- IFRS 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. The Group has applied the amendment prospectively from 1 January 2022. As there was no modification or exchange of the Group's financial liabilities during the year, the amendment did not have any impact on the financial position or performance of the Group.

(d) *國際財務報告準則2018年至2020年之年度改進*載列國際財務報告準則第1號、國際財務報告準則第9號、國際財務報告準則第16號相應闡釋範例及國際會計準則第41號之修訂。有關預期適用於本集團的該等修訂之詳情如下：

- 國際財務報告準則第9號金融工具：闡明當評估新承擔或經修改的金融負債的條款是否與原先金融負債不同時實體所計入的費用。該等費用僅包括借款人與貸款人之間支付或收取的費用，其中包括借款人或貸款人代表另一方支付或收取的費用。本集團已自2022年1月1日起前瞻性地應用該修訂。由於年內本集團的金融負債並無修改或轉變，該等修訂對本集團的財務狀況或表現並無任何影響。



## Notes to the Consolidated Financial Statements (Continued)

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### 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS

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

Amendments to IFRS 10 and IAS 28	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture</i> <sup>3</sup>
Amendments to IFRS 16	<i>Lease Liability in a Sale and Leaseback</i> <sup>2</sup>
IFRS 17	<i>Insurance Contracts</i> <sup>1</sup>
Amendments to IFRS 17	<i>Insurance Contracts</i> <sup>1, 5</sup>
Amendment to IFRS 17	<i>Initial Application of IFRS 17 and IFRS 9 – Comparative Information</i> <sup>6</sup>
Amendments to IAS 1	<i>Classification of Liabilities as Current or Non-current (the “2020 Amendments”)</i> <sup>2, 4</sup>
Amendments to IAS 1	<i>Non-current Liabilities with Covenants (the “2022 Amendments”)</i> <sup>2</sup>
Amendments to IAS 1 and IFRS Practice Statement 2	<i>Disclosure of Accounting Policies</i> <sup>1</sup>
Amendments to IAS 8	<i>Definition of Accounting Estimates</i> <sup>1</sup>
Amendments to IAS 12	<i>Deferred Tax related to Assets and Liabilities arising from a Single Transaction</i> <sup>1</sup>

### 2.3 已頒佈但尚未生效的國際財務報告準則

本集團尚未於本財務報表應用以下已頒佈但尚未生效的新訂及經修訂國際財務報告準則。

國際財務報告準則第10號及國際會計準則第28號(修訂本)	投資者與其聯營公司或合營公司之間的資產出售或注資 <sup>3</sup>
國際財務報告準則第16號(修訂本)	售後租回中的租賃負債 <sup>2</sup>
國際財務報告準則第17號	保險合約 <sup>1</sup>
國際財務報告準則第17號(修訂本)	保險合約 <sup>1, 5</sup>
國際財務報告準則第17號(修訂本)	首次應用國際財務報告準則第17號及國際財務報告準則第9號 – 比較資料 <sup>6</sup>
國際會計準則第1號(修訂本)	負債分類為即期或非即期(「2020年修訂本」) <sup>2, 4</sup>
國際會計準則第1號(修訂本)	附有契約的非流動負債(「2022年修訂本」) <sup>2</sup>
國際會計準則第1號及國際會計準則實務聲明第2號(修訂本)	會計政策披露 <sup>1</sup>
國際會計準則第8號(修訂本)	會計估計的定義 <sup>1</sup>
國際會計準則第12號(修訂本)	與單一交易所產生資產及負債有關的遞延稅項 <sup>1</sup>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (Continued)

- 1 Effective for annual periods beginning on or after 1 January 2023
- 2 Effective for annual periods beginning on or after 1 January 2024
- 3 No mandatory effective date yet determined but available for adoption
- 4 As a consequence of the 2022 Amendments, the effective date of the 2020 Amendments was deferred to annual periods beginning on or after 1 January 2024
- 5 As a consequence of the amendments to IFRS 17 issued in June 2020, IFRS 4 was amended to extend the temporary exemption that permits insurers to apply IAS 39 rather than IFRS 9 for annual periods beginning before 1 January 2023
- 6 An entity that chooses to apply the transition option relating to the classification overlay set out in this amendment shall apply it on initial application of IFRS 17

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

## 2.3 已頒佈但尚未生效的國際財務報告準則(續)

- 1 於2023年1月1日或之後開始的年度期間生效
- 2 於2024年1月1日或之後開始的年度期間生效
- 3 尚未釐定強制生效日期，惟可供採納
- 4 於頒佈2022年修訂本後，2020年修訂本的生效日期已遞延至於2024年1月1日或之後開始的年度期間
- 5 作為於2020年6月頒佈的國際財務報告準則第17號之修訂的結果，於2023年1月1日之前開始的年度期間，國際財務報告準則第4號已作出修訂，以延長允許保險人應用國際會計準則第39號而非國際財務報告準則第9號的暫時豁免
- 6 選擇應用與本修訂所載的分類重覆有關的過渡選項的實體應於首次應用國際財務報告準則第17號時應用該選項

預期將適用於本集團的該等國際財務報告準則之進一步資料於下文載述。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

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#### 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (Continued)

Amendments to IFRS 10 and IAS 28 address an inconsistency between the requirements in IFRS 10 and in IAS 28 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 IFRS 10 and IAS 28 was removed by the IASB in December 2015 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. The amendments are not expected to have any significant impact on the Group's financial statements.

Amendments to IFRS 16 specify the requirements that a seller-lessee uses in measuring the lease liability arising in a sale and leaseback transaction to ensure the seller-lessee does not recognise any amount of the gain or loss that relates to the right of use it retains. The amendments are effective for annual periods beginning on or after 1 January 2024 and shall be applied retrospectively to sale and leaseback transactions entered into after the date of initial application of IFRS 16 (i.e., 1 January 2019). Earlier application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

#### 2.3 已頒佈但尚未生效的國際財務報告準則(續)

國際財務報告準則第10號及國際會計準則第28號之修訂針對國際財務報告準則第10號及國際會計準則第28號之間有關投資者與其聯營公司或合營公司之間資產出售或注資兩者規定之不一致情況。該等修訂規定，當投資者與其聯營公司或合營公司之間的資產出售或注資構成一項業務時，須確認全數來自下游交易的收益或虧損。當交易涉及不構成一項業務的資產時，由該交易產生的收益或虧損於該投資者的損益內確認，惟僅以不相關投資者於該聯營公司或合營公司之權益為限。該等修訂已前瞻應用。國際會計準則委員會已於2015年12月剔除國際財務報告準則第10號及國際會計準則第28號之修訂的以往強制生效日期，而新的強制生效日期將於對聯營公司及合營公司的會計處理完成更廣泛的檢討後釐定。然而，該等修訂現時可供採納。應用該等修訂預期不會對本集團的綜合財務報表造成任何重大影響。

國際財務報告準則第16號(修訂本)訂明賣方－承租人計量售後租回交易產生的租賃負債所使用的規定，以確保賣方－承租人不會確認與所保留使用權有關的任何損益金額。修訂本於2024年1月1日或之後開始的年度期間生效，並須追溯應用於首次應用國際財務報告準則第16號的日期(即2019年1月1日)之後訂立的售後租回交易。該修訂本允許提早應用。預期修訂本對本集團的財務報表並無任何重大影響。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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截至2022年12月31日止年度**2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (Continued)**

Amendments to IAS 1 *Classification of Liabilities as Current or Non-current* clarify the requirements for classifying liabilities as current or non-current, in particular the determination over whether an entity has a right to defer settlement of the liabilities for at least 12 months after the reporting period. 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. In 2022, the IASB issued the 2022 Amendments to further clarify that, among covenants of a liability arising from a loan arrangement, only those with which an entity must comply on or before the reporting date affect the classification of that liability as current or non-current. In addition, the 2022 Amendments require additional disclosures by an entity that classifies liabilities arising from loan arrangements as non-current when it has a right to defer settlement of those liabilities that are subject to the entity complying with future covenants within 12 months after the reporting period. The amendments are effective for annual periods beginning on or after 1 January 2024 and shall be applied retrospectively. Earlier application is permitted. An entity that applies the 2020 Amendments early is required to apply simultaneously the 2022 Amendments, and vice versa. The Group is currently assessing the impact of the amendments and whether existing loan agreements may require revision. Based on a preliminary assessment, the amendments are not expected to have any significant impact on the Group's consolidated financial statements.

**2.3 已頒佈但尚未生效的國際財務報告準則(續)**

國際會計準則第1號(修訂本)將負債分類為流動或非流動澄清劃分負債為流動或非流動的規定，尤其釐定實體是否有權將負債推遲至報告期後至少12個月結算。負債的分類不會受到實體可能會行使推遲結算負債的權利所影響。該等修訂亦澄清被認為清償負債的情況。於2022年，國際會計準則委員會頒佈2022年修訂本，進一步澄清在貸款安排所產生負債的契約當中，只有實體於報告日期或之前須遵守的契約才會影響到負債歸類為流動或非流動的分類。此外，2022年修訂本規定，倘將貸款安排所產生的負債分類為非流動的實體，如有權將其受到規限且符合未來契約的負債推遲至報告期後12個月內結算時，該實體須作出額外披露。該等修訂自2024年1月1日或之後開始的年度期間生效，並將追溯應用。該等修訂允許提早採納。提早應用2020年修訂本的實體亦須同時應用2022年修訂本，反之亦然。本集團現正評估該等修訂的影響以及現有貸款安排是否須作修改。根據初步評估，該等修訂預期不會對本集團財務報表造成任何重大影響。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

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### 2.3 ISSUED BUT NOT YET EFFECTIVE INTERNATIONAL FINANCIAL REPORTING STANDARDS (Continued)

Amendments to IAS 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 IFRS Practice Statement 2 provide non-mandatory guidance on how to apply the concept of materiality to accounting policy disclosures. Amendments to IAS 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 IFRS Practice Statement 2 is non-mandatory, an effective date for these amendments is not necessary. The Group is currently revisiting the accounting policy disclosures to ensure consistency with the amendments.

Amendments to IAS 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 consolidated financial statements.

### 2.3 已頒佈但尚未生效的國際財務報告準則(續)

國際會計準則第1號(修訂本)會計政策的披露要求實體披露彼等的重要會計政策資料而非主要會計政策。倘連同實體財務報表內其他資料一併考慮，會計政策資料可合理預期會影響通用目的財務報表的主要使用者基於該等財務報表作出的決策，則該資料屬重要。國際財務報告準則實務報告第2號(修訂本)就如何將重要性概念應用於會計政策披露提供非強制性指引。國際會計準則第1號(修訂本)於2023年1月1日或之後開始的年度期間生效，並允許提早應用。由於國際財務報告準則實務報告第2號(修訂本)提供的指引並非強制性，因此該等修訂本的生效日期並非必要。本集團現正覆檢該等會計政策披露，以確保符合該等修訂。

國際會計準則第8號(修訂本)澄清會計估計變更與會計政策變更之間的區別。會計估計的定義為財務報表中存在計量不確定性的貨幣金額。該等修訂本亦澄清實體如何使用計量方法及輸入數據編製會計估計。該等修訂本於2023年1月1日或之後開始的年度報告期間生效，並適用於該期間開始時或之後發生的會計政策變更及會計估計變更。允許提早應用。預期該等修訂本不會對本集團的財務報表產生任何重大影響。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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

Amendments to IAS 12 narrow the scope of the initial recognition exception in IAS 12 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 (provided that sufficient taxable profit is available) 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 financial statements.

**2.3 已頒佈但尚未生效的國際財務報告準則(續)**

國際會計準則第12號(修訂本)縮小了國際會計準則第12號中初始確認例外情況的範圍,使其不再適用於產生相等應課稅及可扣減暫時差額的交易,如租賃及停用責任。因此,實體須就該等交易產生的暫時差額確認遞延稅項資產(前提是有足夠應課稅溢利)及遞延稅項負債。該等修訂本於2023年1月1日或之後開始的年度報告期間生效,並將適用於最早呈列的比較期間期初與租賃及停用責任相關的交易,任何累計影響確認為對保留溢利期初餘額的調整或於該日的權益其他組成部分(倘適用)。此外,該等修訂本應前瞻性應用於除租賃及停用責任以外的交易。允許提早應用。

預期該等修訂對本集團的財務報表不會有任何重大影響。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

##### Investment in an associate

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

The Group's investment in an associate is 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.

The Group's share of the post-acquisition results and other comprehensive income of an associate is included in profit or loss and other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate, 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 associate are eliminated to the extent of the Group's investment in an associate, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of associates is included as part of the Group's investment in an associate.

#### 2.4 主要會計政策概要

##### 於一家聯營公司的投資

聯營公司為本集團對其發揮重大影響力之實體。重大影響是指有權參與被投資公司的財務及營運決策，而並非控制或共同控制有關政策。

本集團於聯營公司的投資乃以權益會計法按本集團應佔淨資產減任何減值虧損於綜合財務狀況表列賬。

本集團應佔聯營公司收購後的業績及其他全面收益分別計入損益及其他全面收益。此外，倘於聯營公司直接確認的權益有變動，本集團會於綜合權益變動表確認應佔任何變動(倘適用)。本集團與其聯營公司之間的交易產生的未變現收益及虧損，均按本集團於該等聯營公司的投資比率抵銷，惟未變現虧損經證實是由已轉讓資產減值所產生者則除外。收購聯營公司所產生的商譽計作本集團於聯營公司投資的一部分。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Investment in an associate (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 is classified as held for sale, it is accounted for in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

## 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.

## 2.4 主要會計政策概要(續)

## 於一家聯營公司的投資(續)

倘於聯營公司的投資變為於合營企業的投資或出現相反情況，則不會重新計量保留權益。反之，該投資繼續根據權益法入賬。在所有其他情況下，失去對聯營公司的重大影響力或對合營企業的共同控制權後，本集團按其公允價值計量及確認任何剩餘投資。聯營公司或合營企業於失去重大影響力或共同控制權時的賬面值與剩餘投資及出售所得款項的公允價值之間的任何差額乃於損益中確認。

於聯營公司或合營企業的投資分類為持作出售的投資時，根據國際財務報告準則第5號持作出售的非流動資產及已終止經營業務入賬。

## 業務合併及商譽

業務合併採用收購法入賬。轉讓的代價乃以收購日期的公允價值計量，該公允價值為本集團轉讓的資產於收購日期之公允價值、本集團自被收購方的前度擁有人承擔之負債及本集團發行以換取被收購方控制權的股本權益之總和。於各業務合併中，本集團選擇是否以公允價值或被收購方可識別資產淨值的應佔比例，計量於被收購方的非控股權益，即於被收購方中賦予持有人在清盤時按比例分佔資產淨值的現有所有權權益。非控股權益的所有其他組成部分按公允價值計量。收購相關成本於產生時支銷。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Business combinations and goodwill (Continued)

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.

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.

#### 2.4 主要會計政策概要(續)

##### 業務合併及商譽(續)

當所收購的一組活動及資產包括共同對創造產出的能力作出重大貢獻的一項投入及一項實質性過程時，本集團釐定其已收購一項業務。

倘本集團收購業務，其根據合約期限、收購日的經濟狀況及相關條件評估所購入的財務資產及所承擔的負債，以作適當分類及指定。當中包括分開被收購方於主合約中的嵌入式衍生工具。

倘業務合併分階段進行，先前持有的股權按收購日期的公允價值重新計量，而任何產生的收益或虧損於損益中確認。

收購方將予轉讓的任何或然代價於收購日期按公允價值確認。分類為資產或負債的或然代價按公允價值計量，公允價值變動於損益確認。分類為權益的或然代價不會重新計量，而其後結算於權益內入賬。

商譽初步按成本計量，即已轉讓代價、已確認非控股權益金額及本集團先前持有的被收購方股權的任何公允價值的總和，超過所收購可識別資產及所承擔負債的差額。如總代價及其他項目低於所收購資產淨值的公允價值，於重新評估後其差額將於損益確認為議價收購收益。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Business combinations and goodwill (Continued)

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 unit (the "CGU"), or groups of cash-generating units (the "CGU groups"), 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 CGU (or CGU groups) to which the goodwill relates. Where the recoverable amount of the CGU 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 CGU (or a CGU group) 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 CGU retained.

## 2.4 主要會計政策概要(續)

## 業務合併及商譽(續)

初始確認後，商譽按成本減任何累計減值虧損計量。商譽每年進行減值測試，或當有事件出現或情況改變顯示賬面值可能出現減值時，作出更頻密測試。本集團於12月31日進行年度商譽減值測試。為進行減值測試，因業務合併而購入的商譽自收購日期起被分配至預期可從合併產生的協同效益中獲益的本集團各個現金產生單位(「現金產生單位」)或現金產生單位組別(「現金產生單位組別」)，而無論本集團其他資產或負債是否已分配予該等單位或單位組別。

減值乃通過評估與商譽有關的現金產生單位(或現金產生單位組別)的可收回金額釐定。倘現金產生單位(現金產生單位組別)的可收回金額低於賬面值，則確認減值虧損。就商譽確認的減值虧損不會於其後期間撥回。

倘商譽已分配至現金產生單位(或現金產生單位組別)，而該單位的部分業務已出售，則在釐定所出售業務的收益或虧損時，與所出售業務相關的商譽會計入該業務的賬面值。在該等情況下出售的商譽根據所出售業務及所保留現金產生單位部分的相對價值計量。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Fair value measurement

The Group measures its debt 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.

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.

#### 2.4 主要會計政策概要(續)

##### 公允價值計量

本集團於各報告期末按公允價值計量債務及股權投資。公允價值為市場參與者於計量日期在有序交易中出售資產所收取的價格或轉讓負債所支付的價格。公允價值計量乃假設出售資產或轉讓負債的交易於資產或負債主要市場或(在無主要市場的情況下)資產或負債最具優勢市場進行。主要或最具優勢市場須為本集團可進入的市場。資產或負債的公允價值乃按假設市場參與者於為資產或負債定價時會以他們的最佳經濟利益行事計量。

非金融資產的公允價值計量計及市場參與者能否透過最大限度使用該資產達致最佳用途，或將該資產出售予將最大限度使用該資產以達致最佳用途的另一市場參與者以產生經濟效益。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Fair value measurement (Continued)

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 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 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.

## 2.4 主要會計政策概要(續)

## 公允價值計量(續)

本集團採用適用於有關情況且具備充分數據以計量公允價值的估值技巧，以盡量使用相關可觀察輸入數據及盡量減少使用不可觀察輸入數據。

所有公允價值於財務報表計量或披露的資產及負債乃按對公允價值計量整體屬重大的最低層輸入數據於下述公允價值層級內分類：

- 第一級 – 按相同資產或負債於活躍市場的報價(未經調整)
- 第二級 – 按估值技巧，就此而言，對公允價值計量屬重大的最低層輸入數據可直接或間接觀察
- 第三級 – 按估值技巧，就此而言，對公允價值計量屬重大的最低層輸入數據不可觀察

就按經常性基準於財務報表確認的資產及負債而言，本集團透過於各報告期末重新評估分類(基於對公允價值計量整體屬重大的最低層輸入數據)確定各層級之間是否已發生轉移。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### 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 and investment properties), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or the CGU'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 CGU to which the asset belongs. In testing a CGU for impairment, a portion of the carrying amount of a corporate asset (e.g., a headquarters building) is allocated to an individual CGU 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 profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

#### 2.4 主要會計政策概要(續)

##### 非金融資產減值

當存在減值跡象，或當需要就資產(存貨、合約資產、遞延稅項資產、金融資產及投資物業除外)進行年度減值測試時，會估計資產的可收回金額。資產的可收回金額為資產或現金產生單位的使用價值與其公允價值減出售成本兩者的較高者，並就個別資產而釐定，除非資產並不產生在很大程度上獨立於其他資產或資產組別的現金流入，於此情況下，則可收回金額就資產所屬現金產生單位而釐定。在對現金產生單位進行減值測試時，如其可按合理一致的基準進行分配，則公司資產的部分賬面值(如總部大樓)會被分配至個別的現金產生單位，否則會被分配至最小的現金產生單位組別。

減值虧損僅於資產賬面值超過其可收回金額時確認。於評估使用價值時，估計未來現金流量按反映幣值時間值及資產特定風險的現時市場評估的稅前折現率折現至其現值。減值虧損按與該減值資產功能相符的開支類別於產生期間自損益中扣除。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Impairment of non-financial assets (Continued)

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 profit or loss in the period in which it arises.

## 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;

## 2.4 主要會計政策概要(續)

## 非金融資產減值(續)

於各報告期末評估是否有跡象顯示先前所確認的減值虧損可能不再存在或已減少。倘存在有關跡象，則估計可收回金額。僅當用以釐定資產(商譽除外)可收回金額的估計有變時，方會撥回該資產先前確認的減值虧損，但撥回後的金額不得超逾假設於過往年度並無就該資產確認減值虧損而應釐定的賬面值(扣除任何折舊／攤銷)。有關減值虧損撥回乃於其產生期間計入損益。

## 關連方

以下人士被視為本集團的關連方，倘：

**(a) 有關方為一名人士或該人士的關係密切家庭成員，而該人士**

- (i) 擁有本集團的控制權或共同控制權；
- (ii) 對本集團具有重大影響力；  
或
- (iii) 為本集團或本集團母公司的  
主要管理人員的一名成員；



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Related parties (Continued)

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;
- (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.

## 2.4 主要會計政策概要(續)

### 關連方(續)

或

**(b) 有關方為實體且符合下列任何一項條件：**

- (i) 該實體與本集團屬同一集團的成員公司；
- (ii) 一實體為另一實體(或另一實體的母公司、附屬公司或同系附屬公司)的聯營公司或合營企業；
- (iii) 該實體與本集團為同一第三方的合營企業；
- (iv) 一實體為第三方實體的合營企業，而另一實體為該第三方實體的聯營公司；
- (v) 該實體為本集團或與本集團有關連的實體就僱員福利設立的離職後福利計劃；
- (vi) 該實體受(a)所述人士控制或共同控制；
- (vii) 上文(a)(i)所述人士對實體具有重大影響力或屬該實體(或該實體的母公司)主要管理人員的一名成員；及
- (viii) 向本集團或本集團的母公司提供主要管理人員服務的實體或為其一部分的任何集團成員公司。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## 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 IFRS 5 *Non-current Assets Held for sale and Discontinued Operations*. 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.

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to 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, plant 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.

Depreciation is calculated by the units-of-production method to write off the cost of each item of landfills to its residual value over its estimated useful life. The estimated landfill volume are as follows:

Rigid landfills	50,000 tons/each
Flexible landfill	500,000 tons/each

## 2.4 主要會計政策概要(續)

## 物業、廠房及設備及折舊

物業、廠房及設備(在建工程除外)乃按成本減累計折舊及任何減值虧損列賬。當物業、廠房及設備項目分類為持作出售或當其屬於分類為持作出售的組別的一部分時,則不予折舊而按國際財務報告準則第5號持作出售的非流動資產及已終止經營業務入賬。物業、廠房及設備項目的成本包括其購買價及任何令資產投入運作及將資產運往擬定用途地點的直接應佔成本。

於物業、廠房及設備項目投入運作後引致的支出,如維修及維護支出,通常於產生期間計入損益。倘符合確認標準,主要檢查支出會作為重置,於資產賬面值中資本化。倘大部分物業、廠房及設備須不時重置,本集團確認該等部分為個別具有特定可使用年期的資產及相應地對其作出折舊。

折舊乃以生產法的單位按填埋場的估計可使用年期撇銷各個填埋場項目的成本至其剩餘價值計算。估值填埋場的生產量如下:

固定填埋場	每個50,000噸
彈性填埋場	每個500,000噸



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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

Except for landfills, depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The estimated useful lives of property, plant and equipment are as follows:

Owned properties	14 to 30 years
Motor vehicles	5 years
Fixtures and equipment	2 to 20 years

Where parts of an item of property, plant 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, with the effect of any changes in estimate accounted for on a prospective basis.

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

#### 2.4 主要會計政策概要(續)

##### 物業、廠房及設備及折舊(續)

除填埋場外，折舊乃以直線法按其估計可使用年期撇銷各項物業、廠房及設備的成本至其剩餘價值計算。物業、廠房及設備的估計可使用年期如下：

自有物業	14至30年
汽車	5年
固定裝置及設備	2至20年

當一項物業、廠房及設備的各部分有不同可使用年期時，該項目的成本乃按合理基準在各部分之間分配，而各部分乃個別地折舊。剩餘價值、可使用年期及折舊方法至少於各報告期末檢討，並作出調整(如適用)，任何估計變動的影響按往後基準入賬。

當本集團就於物業的擁有權權益(包括租賃土地及樓宇成分)付款時，全部代價於租賃土地及樓宇成分之間按初始確認時的相對公允價值的比例分配。倘相關付款能可靠分配，則租賃土地的權益於綜合財務狀況表內呈列為「物業、廠房及設備」。當代價無法在相關租賃土地的非租賃樓宇成分及未分割權益之間可靠分配時，整項物業分類為物業、廠房及設備。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

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

An item of property, plant 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 on disposal or retirement recognised in 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 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, plant and equipment when completed and ready for use.

**Investment properties**

Investment properties are interests in land and buildings (including the leasehold property held as a right-of-use asset which would otherwise meet the definition of an investment property) held to earn rental income and/or for capital appreciation, rather than for use in the production or supply of goods or services or for administrative purposes; or for sale in the ordinary course of business. Such properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are measured at cost less accumulated depreciation and any impairment losses.

## 2.4 主要會計政策概要(續)

**物業、廠房及設備及折舊(續)**

物業、廠房及設備項目(包括初始確認的任何重大部分)於出售或預期其使用或出售不會帶來任何未來經濟利益時終止確認。因出售或報廢而於該資產終止確認年度的損益中確認的任何收益或虧損乃有關資產淨銷售所得款項與賬面值的差額。

在建工程指興建中的樓宇，乃按成本減任何減值虧損列賬，並不予折舊。成本包括直接建築成本及於建築期內有關借貸資金的資本化借款成本。在建工程於竣工且可供使用時將重新分類至適當之物業、廠房及設備類別。

**投資物業**

投資物業為持作賺取租金收入及／或資本升值，而非用作生產或供應貨物或服務或用作行政用途；或供日常業務過程中出售的所持土地及樓宇(包括符合投資物業定義持作使用權資產的租賃物業)的權益。該等物業最初按成本(包括交易成本)計量。於初始確認後，投資物業乃按成本減累計折舊及任何減值虧損計量。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Investment properties (Continued)

The investment properties are depreciated on a straight-line basis at the rate of 3.17% per annum with the estimated residual value of 5% of the cost.

Any gains or losses on the retirement or disposal of an investment property are recognised in profit or loss in the year of the retirement or disposal.

##### Intangible assets (other than goodwill)

Intangible assets with finite useful lives, other than service concession arrangements as set out in “Service concession arrangements” below, that are acquired separately are carried at cost less accumulated amortisation and any impairment losses. Amortisation is recognised on a straight-line basis over their estimated useful lives.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in profit or loss in the period when the asset is derecognised.

#### 2.4 主要會計政策概要(續)

##### 投資物業(續)

投資物業按每年3.17%的折舊率及佔成本5%的估計剩餘價值，以直線法計算折舊。

報廢或出售投資物業所產生的任何收益或虧損，於報廢或出售的年度內在損益中確認。

##### 無形資產(商譽除外)

單獨收購及有限定可使用年期之無形資產(不包括下文「服務特許經營安排」所載的服務特許經營安排)按成本減累計攤銷及任何減值虧損列賬。攤銷於其估計可使用年期以直線法確認。

無形資產於出售時或預期其使用或出售不會產生任何日後經濟利益時終止確認。終止確認無形資產所產生的損益按資產的出售所得款項淨額與賬面金額的差額計算，並於終止確認資產期間於損益中確認。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Intangible assets (other than goodwill) (Continued)

When the Group has a right to charge for usage of service concession infrastructure (as a consideration for providing construction services in a service concession arrangement), it recognises an intangible asset at fair value upon initial recognition. The Group's intangible assets represent operating concessions and are stated at cost less accumulated amortisation and any impairment losses, if any. Operating concessions are amortised over the tenure of the service concession arrangements and after taking into account of their estimated residual value, using straight-line method. The residual value is estimated by the Directors for the amount that could be recovered when the relevant contractual party is obliged to pay the Group for the transfer of infrastructure (which is built by the Group for obtaining the operating concession) at a price appraised by valuer upon the expiry of the service concession arrangements (if not extendable by the relevant contractual party) in accordance with the relevant service concession agreements. The estimated useful life, residual value and amortisation method are reviewed at the end of the reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Further details of operating concessions are set out in "Service concession arrangements" below.

## 2.4 主要會計政策概要(續)

### 無形資產(商譽除外)(續)

當本集團有權就使用基建經營權收費(作為服務特許經營安排下建造服務的代價),則在初始確認無形資產時會以公允價值計量。本集團的無形資產為特許經營權,以成本減累計攤銷及任何減值虧損(如有)列賬。特許經營權於服務特許經營安排的年期內使用直線法,並考慮到其估計剩餘價值進行攤銷。當有關訂約方須要就基礎設施(由本集團為獲取特許經營權而興建)的轉移,根據相關服務特許經營協議按服務特許經營安排屆滿時(倘不獲有關訂約方延期)由估值師評估的價值向本集團付款時,則剩餘價值由董事就可收回的金額作估計。估計可使用年期、剩餘價值及攤銷方法於報告期末作檢討,任何估計變動的影響按往後基準入賬。特許經營權的進一步詳情載於下文「服務特許經營安排」。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Intangible assets (other than goodwill) (Continued)

Service concession arrangements are amortised on a straight-line basis, over the remaining concession period. Other intangible assets are amortised on a straight-line basis based on their estimated useful lives as follows:

##### **Software**

Software is stated at cost less any impairment losses and is amortised on the straight-line basis over its estimated useful life of 5 years.

##### **Patents and trademarks**

Patents and trademarks are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives of 5 to 15 years.

##### **Research and development costs**

All research costs are charged to profit or loss as incurred.

##### **Customer relationship**

Customer relationship is stated at cost less any impairment losses and is amortised on the straight-line basis over its estimated useful life of 5 years.

#### 2.4 主要會計政策概要(續)

##### 無形資產(商譽除外)(續)

服務特許經營安排按餘下特許經營期以直線基準攤銷。其他無形資產乃根據下述估計可使用年期以直線基準攤銷：

##### **軟件**

軟件按成本減任何減值虧損列賬，並於估計可使用年期5年內以直線法攤銷。

##### **專利及商標**

專利及商標按成本減任何減值虧損列賬，並於估計可使用年期5至15年內以直線法攤銷。

##### **研究及開發成本**

所有研發成本於產生時自損益表扣除。

##### **客戶關係**

客戶關係按成本減任何減值虧損列賬，並於5年的估計可使用年期內以直線法攤銷。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Service concession arrangements

The Group has entered into a number of service concession arrangements with certain owners of the power plants and other entities (the “Grantors”).

Under these service concession arrangements:

- the Grantors control or regulate the services the Group must provide with the infrastructure, to whom it must provide them, and at what price; and
- the Grantors control, through ownership, beneficial entitlement or otherwise, any significant residual interest in the infrastructure at the end of the term of the arrangements, or the infrastructure is used for its entire useful life under the arrangements, or both the Group’s practical ability to sell or pledge the infrastructure is restricted and continuing right of use of the infrastructure is given to the Grantors throughout the period of the arrangements.

## 2.4 主要會計政策概要(續)

## 服務特許經營安排

本集團已與若干發電廠擁有人及其他實體(「授予人」)訂立多項服務特許經營安排。

根據該等服務特許經營安排：

- 授予人控制或監管本集團需提供基建的服務、被提供服務的人士及價格；及
- 於安排期限末，授予人透過擁有權、實際權利或其他方式控制基建的任何重大剩餘權益，或基建根據安排於整個可用年限內使用，或於整個安排期間本集團出售或抵押基建的實際能力受到限制及使用基建的持續權利給予授予人。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Service concession arrangements (Continued)

##### Consideration given to the Grantor

During construction stage, a contract asset is recognised to the extent that the Group has a future unconditional right to receive cash or another financial asset from the Grantors for the consideration paid and payable by the Group to the Grantors upon completion of the construction of the relevant infrastructure, that is a condition for granting such unconditional right. The contract asset is transferred to financial asset (receivable under a service concession arrangement) when the construction of the relevant infrastructure is completed. The Group has unconditional right to receive cash if the Grantors contractually guarantee to pay the Group specified or determinable amounts or the shortfall (the “**Guarantee**”), if any, between amounts received from the users of the service and specified or determinable amounts.

The financial assets (receivables under service concession arrangements) are accounted for in accordance with the policy set out for financial assets at amortised cost below. An intangible asset (operating concession) is recognised to the extent that the Group receives a right to charge users of the service, which is not an unconditional right to receive cash because the amounts are contingent on the extent that the use, and is accounted for in accordance with the policy set out for “Intangible assets” above.

If the Group is paid for the consideration partly by a financial asset and partly by an intangible asset, then each component of the consideration is accounted for separately and is recognised initially at the fair value of the consideration.

#### 2.4 主要會計政策概要(續)

##### 服務特許經營安排(續)

##### 給予授予人的代價

於建造階段所確認的合約資產，以本集團於相關基礎設施建造完成時有未來的無條件權利向授予人收取現金或其他金融資產作為本集團支付及應付授予人的代價為限，而此乃授予該無條件權利的條件。當相關基礎設施建造完成時，合約資產轉撥至金融資產(服務特許經營安排下應收)。倘授予人以合約方式保證向本集團支付指定或待定金額，或授予人已收用戶有關服務的款項與指定或待定金額兩者間的差額(如有)(「保證」)，則本集團擁有無條件權利收取現金。

金融資產(服務特許經營安排下的應收款項)根據下文所載有關按攤銷成本計量的金融資產的政策列賬。無形資產(特許經營權)於本集團取得向使用者收取公共服務費用的權利時確認，惟該權利並非收取現金的無條件權利，因為有關金額須以公共服務將獲提供為條件，並按上文就「無形資產」所載的政策列賬。

倘本集團部分以金融資產及部分以無形資產來支付代價，則代價的各組成部分獨立入賬，並按代價的公允價值初始確認。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 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. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease terms and the estimated useful lives of the assets as follows:

Leasehold lands	50 years
Leased properties	1 to 10 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.

## 2.4 主要會計政策概要(續)

## 租賃

訂立合約時，本集團評估合約是否為租賃或包含租賃。倘合約為換取代價而給予在一段時間內控制已識別資產使用的權利，則合約為租賃或包含租賃。

**本集團作為承租人**

除短期租賃及低價值資產的租賃外，本集團就所有租賃採用單一確認及計量方法。本集團確認租賃負債以作出租賃款項，而使用權資產指使用相關資產的權利。

(a) *使用權資產*

使用權資產於租賃開始日期(即相關資產可供使用之日)確認。使用權資產按成本減任何累計折舊及任何減值虧損計量，並就租賃負債的任何重新計量而作出調整。使用權資產成本包括已確認租賃負債金額、產生的初始直接成本及於開始日期或之前所作租賃付款減任何已收取租賃優惠。使用權資產於資產租期及估計可使用年期(以較短者為準)按直線法折舊，詳情如下：

租賃土地	50年
租賃物業	1至10年

倘租賃資產的所有權於租賃期結束時轉移至本集團或相關成本反映購買選擇權之行使，則使用資產的估計可使用年期計算折舊。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Leases (Continued)

##### Group as a lessee (Continued)

##### (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 its incremental borrowing rate at the lease commencement date because 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 the lease term, a change in lease payments (e.g., a change to future lease payments resulting from a change in an index or rate) or a change in assessment of an option to purchase the underlying asset.

#### 2.4 主要會計政策概要(續)

##### 租賃(續)

##### 本集團作為承租人(續)

##### (b) 租賃負債

租賃負債於租賃開始日期按租期內將予作出的租賃付款現值確認。租賃負債包括定額付款(含實質定額付款)減任何租賃優惠應收款項、可變租賃付款(取決於指數或利率)及合理預期根據殘值擔保將予支付的款項。租賃付款亦包括合理確定本集團將予行使的購買選擇權的行使價及於租期反映本集團行使終止選擇權時,有關終止租賃的罰款。倘可變租賃付款並不取決於指數或利率,則於觸發付款的事件或條件出現期間內確認為開支。

計算租賃付款現值時,倘租賃內含利率無法輕易確定,則本集團使用租賃開始日期的增量借款利率。開始日期後,租賃負債金額會增加以反映利息累加,並因所作租賃付款而相應減少。此外,倘租期發生更改或變動,實質定額租賃付款發生變化,或指數或利率變動導致未來租賃付款發生變動,或購買相關資產的評估發生變動,租賃負債的賬面值會重新計量。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 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 leased 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).

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. Rental income is accounted for on a straight-line basis over the lease terms and is included in revenue in 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.

## 2.4 主要會計政策概要(續)

## 租賃(續)

**本集團作為承租人(續)**

## (c) 短期租賃及低價值資產租賃

本集團對租賃機器及設備的短期租賃應用短期租賃確認豁免(即自開始日期起計租期不超過12個月且不包含購買選擇權的有關租賃)。

短期租賃及低價值資產租賃的租賃付款以直線法按租期確認為開支。

**本集團作為出租人**

在作為出租人訂立租賃時(或當租賃修訂時),本集團將各項租賃分類為經營租賃或融資租賃。

所有本集團並未轉讓資產所有權所附帶的絕大部分風險及回報的租賃歸類為經營租賃。租金收入於租期內按直線法核算,並根據其經營性質計入損益表內之收益。於磋商及安排經營租賃時產生的初始直接成本計入租賃資產的賬面價值,並於租期內按相同方法確認為租金收入。或有租金乃於所賺取的期間內確認為收益。

相關資產所有權所附帶的絕大部分風險及回報轉讓予承租人的租賃歸類為融資租賃。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### 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 IFRS 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.

#### 2.4 主要會計政策概要(續)

##### 投資及其他金融資產

###### 初始確認及計量

金融資產在初始確認時分類，其後按攤銷成本、公允價值計入其他全面收益和公允價值計入損益計量。

金融資產在初始確認時的分類取決於金融資產的合同現金流特徵和本集團管理金融資產的商業模式。除了並不包含顯著的融資組成部分或本集團已應用權宜不就顯著融資組成部分的影響作出調整的應收賬款外，金融資產初始按公允價值另加收購金融資產應佔交易成本確認，惟按公允價值計入損益的金融資產除外。並不包含顯著融資組成部分或本集團已應用權宜的應收賬款，乃根據國際財務報告準則第15號下釐定的交易價格計量，而此乃根據下文「收入確認」載列的該等政策。

為使金融資產按攤銷成本或按公允價值計入其他全面收益進行分類及計量，需就未償還本金產生純粹支付本金及利息現金流。現金流量並非純粹為支付本金及利息的金融資產按公允價值計入損益分類及計量，而無論屬何業務模式。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Investments and other financial assets (Continued)

#### Initial recognition and measurement (Continued)

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.

#### 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 profit or loss when the asset is derecognised, modified or impaired.

## 2.4 主要會計政策概要(續)

### 投資及其他金融資產(續)

#### 初始確認及計量(續)

本集團管理金融資產的業務模式指其如何管理其金融資產以產生現金流。業務模式確定現金流是否將來自收集合約現金流、出售金融資產，或兩者兼有。於旨在持有金融資產以收取合約現金流量的業務模式中持有的金融資產按攤銷成本分類及計量，而於旨在持有金融資產以收取合約現金流量及出售金融資產的業務模式中持有的金融資產按公允價值計入其他全面收益分類及計量。並非於上述業務模式中持有的金融資產，按公允價值計入損益分類及計量。

循正常途徑買入及出售的金融資產於交易日(即本集團承諾購買或出售資產之日)確認。循正常途徑買入或出售，乃指須於法規或一般市場慣例設定的期間內交付資產的金融資產買入或出售。

#### 後續計量

金融資產的後續計量如下所述取決於其類別：

##### 按攤銷成本列賬的金融資產(債務工具)

按攤銷成本列賬的金融資產其後使用實際利率法計量，並可能受減值影響。當資產終止確認、修訂或減值時，收益及虧損於損益表中確認。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Investments and other financial assets (Continued)

##### **Subsequent measurement (Continued)**

##### *Financial assets 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 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 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 IAS 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 profit or loss. Dividends are recognised as other income in 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.

#### 2.4 主要會計政策概要(續)

##### 投資及其他金融資產(續)

##### 後續計量

##### 按公允價值計入其他全面收益的金融資產(債務工具)

就按公允價值計入其他全面收益的債務工具而言，利息收入、外匯重估及減值虧損或撥回於損益中確認，並按與按攤銷成本計量的金融資產相同之方式計算。其餘公允價值變動於其他全面收益中確認。終止確認時，於其他全面收益中確認的累計公允價值變動將撥回至損益。

##### 指定按公允價值計入其他全面收益的金融資產(股本工具)

於初始確認時，本集團可選擇於股權投資符合國際會計準則第32號金融工具：呈列項下的權益定義且並非持作交易時，將其股權投資不可撤回地分類為指定按公允價值計入其他全面收益的股本工具。分類乃按個別工具基準釐定。

該等金融資產的收益及虧損概不會被撥回至損益。當支付權已確立、與股息相關的經濟利益很可能流入本集團，且可靠地計量股息金額時，股息於損益中確認為其他收入，惟當本集團於作為收回金融資產一部分成本的所得款項中獲益時則除外，於此情況下，該等收益於其他全面收益入賬。指定按公允價值計入其他全面收益的股本工具無須進行減值評估。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 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*

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 profit or loss.

This category includes 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 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 主要會計政策概要(續)

## 投資及其他金融資產(續)

**後續計量(續)***按公允價值計入損益的金融資產*

按公允價值計入損益的金融資產在財務狀況表內按公允價值列賬，而公允價值變動淨額於損益中確認。

該類別包括本集團並無不可撤銷地選擇按公允價值計入其他全面收益進行分類的股權投資。分類為按公允價值計入損益的股權投資所產生的股息亦於支付權已確立、與股息相關的經濟利益很可能流入本集團，且可靠地計量股息金額時，於損益中確認為其他收入。

當嵌入混合合約(包含金融負債或非金融主體)的衍生工具具備與主體不緊密相關的經濟特徵及風險；具備與嵌入式衍生工具相同條款的單獨工具符合衍生工具的定義；且混合合約並非按公允價值計入損益計量，則該衍生工具與主體分開並作為單獨衍生工具列賬。嵌入式衍生工具按公允價值計量，且其變動於損益表確認。

僅當合約條款出現變動，大幅改變其他情況下所需現金流量時，或當原分類至按公允價值計入損益的金融資產獲重新分類時，方進行重新評估。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 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.

#### 2.4 主要會計政策概要(續)

##### 投資及其他金融資產(續)

##### 後續計量(續)

按公允價值計入損益的金融資產(續)

嵌入混合合約(包含金融資產主體)的衍生工具不得單獨列賬。金融資產主體連同嵌入式衍生工具須整體分類為按公允價值計入損益的金融資產。

##### 終止確認金融資產

金融資產(或(如適用)一項金融資產的一部分或一組同類金融資產的一部分)主要在下列情況下將予終止確認(即從本集團的綜合財務狀況表中剔除):

- 自資產收取現金流的權利已屆滿；或
- 本集團已轉讓其自資產收取現金流的權利，或已根據「轉手」安排來承擔向第三方全數支付所收取現金流的責任而並無重大延誤；及(a)本集團已轉讓資產的絕大部分風險及回報；或(b)本集團並無轉讓或保留資產的絕大部分風險及回報，但已轉讓資產的控制權。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Derecognition of financial assets (Continued)

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 performs impairment assessment under expected credit loss ("ECL") model on financial assets, which are subject to impairment under IFRS 9 (including trade receivables, other receivables, amounts due from related parties, debt instruments at fair value through other comprehensive income, receivables under service concession arrangement, long-term receivable, cash and bank balances, and time deposits) and contract assets. The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

## 2.4 主要會計政策概要(續)

## 終止確認金融資產(續)

當本集團已轉讓其自一項資產收取現金流的權利或已訂立一項轉手安排，本集團評估其是否保留資產所有權的風險及回報及保留程度。當本集團並無轉讓或保留該資產的絕大部分風險及回報，亦無轉讓該資產的控制權，則本集團繼續以本集團持續涉入的程度將轉讓資產確認入賬。於該情況下，本集團亦確認一項相關負債。轉讓資產及相關負債乃以反映本集團保留權利及責任的基準計量。

持續參與指本集團就已轉讓資產作出的保證，已轉讓資產乃以該項資產的原賬面值與本集團或須償還的代價數額上限兩者之較低者計算。

## 金融資產減值

本集團根據預期信貸虧損(「預期信貸虧損」)模式對金融資產及合約資產進行減值評估，而上述金融資產受限於國際財務報告準則第9號的減值規定，包括貿易應收款項、其他應收款項、應收關連方款項、按公允價值計入其他全面收益的債務工具、服務特許經營安排項下的應收款項、長期應收款項、現金及銀行結餘以及定期存款。預期信貸虧損的金額於各報告日期更新，以反映自初始確認後信用風險的變化。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Impairment of financial assets (Continued)

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

##### **Simplified approach**

The Group always recognises lifetime ECL for trade receivables, contract assets and amounts due from related parties-trade portion without significant financing component. 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. Except for debtors including which is credit-impaired is assessed for impairment individually, the trade receivables, contract assets and amounts due from related parties-trade portion are grouped under a provision matrix into internal credit rating buckets based on shared credit risk characteristics by reference to repayment histories for recurring customers and current past due exposure for the new customers.

##### **General approach**

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

#### 2.4 主要會計政策概要(續)

##### 金融資產減值(續)

全期預期信貸虧損指相關工具的預期使用期內所有可能的違約事件產生的預期信貸虧損。相反，12個月預期信貸虧損指預期於報告日期後12個月內可能發生的違約事件導致的全期預期信貸虧損部分。評估乃根據本集團的歷史信貸虧損經驗進行，並根據債務人特有的因素、一般經濟狀況以及對報告日期當前狀況的評估以及對未來狀況的預測作出調整。

##### 簡化方法

本集團始終就沒有重大融資成分的貿易應收款項、合約資產及應收關連方款項的貿易部分確認全期預期信貸虧損。除包括已出現信貸減值的債務人個別地作減值評估外，貿易應收款項、合約資產及應收關連方款項的貿易部分乃參考還款歷史記錄(就經常客戶而言)及當期逾期風險(就新客户而言)，基於共有的信貸風險特性根據撥備矩陣進行內部信貸評估的分類以作集體評估。

##### 一般方法

對於所有其他工具，本集團計量的虧損撥備等於12個月預期信貸虧損，除非自初步確認後信貸風險顯著增加，本集團確認全期預期信貸虧損。是否應確認全期預期信貸虧損的評估乃基於自初始確認以來發生違約的可能性或風險的顯著增加。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Impairment of financial assets (Continued)

**General approach (Continued)**

## (a) Significant increase in credit risk

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

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

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, or the length of time or the extent to which the fair value of a financial asset has been less than its amortised cost;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;

## 2.4 主要會計政策概要(續)

## 金融資產減值(續)

## 一般方法(續)

## (a) 信貸風險大幅增加

於評估金融工具自初始確認以來信貸風險有否大幅增加時，本集團將於報告日期金融工具發生的違約風險與初始確認日以來金融工具發生的違約風險進行比較。本集團進行此項評估時會考慮合理且可支持的定量及定性資料，包括無需付出不必要的成本或努力而可得的歷史經驗及前瞻性資料。

具體而言，評估信貸風險自初步確認以來有否大幅增加時，會考慮以下資料：

- 金融工具外部(如有)或內部信用評級實際或預期會顯著惡化；
- 信用風險的外部市場指標明顯惡化，例如信貸息差大幅上升，或金融資產公允價值低於其攤銷成本的時長或幅度大幅增加；
- 預計會導致債務人履行債務責任能力大幅下降的業務、財務或經濟狀況的現有或預期不利變動；



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Impairment of financial assets (Continued)

##### General approach (Continued)

##### (a) Significant increase in credit risk (Continued)

- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

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

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

#### 2.4 主要會計政策概要(續)

##### 金融資產減值(續)

##### 一般方法(續)

##### (a) 信貸風險大幅增加(續)

- 債務人經營業績實際或預期會顯著惡化；
- 導致債務人履行債務責任能力大幅下降的監管、經濟或技術環境的實際或預期重大不利變動。

不論上述評估結果如何，倘合約付款逾期超過30日，則本集團會假定信貸風險自初始確認以來已大幅上升，除非本集團另有合理且可證實資料可資證明，則作別論。

本集團定期監控用以識別信貸風險有否大幅增加的標準的效益，且修訂標準(如適當)來確保標準能在金額逾期前識別信貸風險大幅增加。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Impairment of financial assets (Continued)

**General approach (Continued)**

## (b) Definition of default

The Group considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that receivables that meet either of the following criteria are generally not recoverable.

- when there is a breach of covenants by the counterparty; or
- information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

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

## 2.4 主要會計政策概要(續)

## 金融資產減值(續)

## 一般方法(續)

## (b) 違約的定義

本集團認為以下情況就內部信貸風險管理目的而言構成違約事件，因為過往經驗表明符合以下任何一項條件的應收款項一般無法收回：

- 對手方違反契諾；或
- 內部產生或獲取自外部來源的資料表明，債務人不太可能向債權人(包括本集團)全額還款，不計及本集團持有的任何抵押品。

無論上文分析如何，本集團認為當合約付款逾期超過90日時，即屬發生違約，除非本集團有合理及有理據的資料證明較寬鬆的違約標準更為適用則當別論。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Impairment of financial assets (Continued)

##### **General approach (Continued)**

##### (c) *Credit-impaired financial assets*

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

- significant financial difficulty of the issuer or the borrower;
- a breach of contract, such as a default or past due event;
- the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider; or
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation.

##### **Write-off policy**

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

#### 2.4 主要會計政策概要(續)

##### 金融資產減值(續)

##### 一般方法(續)

##### (c) *信貸減值金融資產*

金融資產在一項或以上事件(對該金融資產估計未來現金流量構成不利影響)發生時維持信貸減值。金融資產維持信貸減值的證據包括有關下列事件的可觀察數據:

- 發行人或借款人的重大財困;
- 違反合約(如違約或逾期事件);
- 借款人的貸款人因有關借款人財困的經濟或合約理由而向借款人批出貸款人不會另行考慮的優惠;或
- 借款人將可能陷入破產或其他財務重組。

##### **撇銷政策**

資料顯示對手方處於嚴重財困及無實際收回可能時(例如對手方被清盤或已進入破產程序),本集團則撇銷金融資產。遭撇銷的金融資產可能仍須按本集團收回程序進行強制執行活動。任何收回款項在損益中確認。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Impairment of financial assets (Continued)

**Measurement and recognition of ECL**

The measurement of ECL is a function of the probability of default, loss given default and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

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

To measure the ECL, contract assets, trade receivables and amounts due from related parties-trade portion are grouped based on shared common risk characteristics. The Group believes that most of the customers of trade receivable, contract assets and amounts due from related parties-trade portion are the same in nature, who are power plants, and treats all customers as one single group. The grouping is regularly reviewed by the Directors to ensure the constituents of the Group continue to share similar credit risk characteristics.

## 2.4 主要會計政策概要(續)

## 金融資產減值(續)

**預期信貸虧損的計量及確認**

預期信貸虧損的計量為違約概率、違約損失率及違約風險的函數。違約概率及違約損失率乃基於根據前瞻性資料調整的歷史數據評估。預期信貸虧損的預估乃無偏概率加權平均金額，以發生違約的風險為權重確定。

一般而言，預期信貸虧損為本集團根據合約應收的所有合約現金流量與本集團預計收取的所有現金流量的差額，並按初步確認時釐定的實際利率貼現。

計量預期信貸虧損時，合約資產、貿易應收款項及應收關連方款項的貿易部分按共同風險特點分類。本集團相信貿易應收款項、合約資產及應收關連方款項的貿易部分的大部分客戶(發電廠)屬同一性質，將全部客戶視為同一類。董事定期檢討分組，確保集團成員公司繼續攤佔類似的信貸風險特點。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Impairment of financial assets (Continued)

##### **Measurement and recognition of ECL (Continued)**

Except for investments in debt instruments that are measured at fair value through other comprehensive income, the Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade receivables, contract assets, amounts due from related parties, receivables under service concession arrangement, long-term receivable and other receivables where the corresponding adjustment is recognised through a loss allowance account.

##### Financial liabilities

##### **Initial recognition and measurement**

Financial liabilities are classified, at initial recognition, as contingent consideration, loans and borrowings, payables.

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 bills payables, other payables, amounts due to related parties, interest-bearing bank and other borrowings.

#### 2.4 主要會計政策概要(續)

##### 金融資產減值(續)

##### **預期信貸虧損的計量及確認(續)**

除按公允價值計入其他全面收益計量的債務工具投資外，本集團通過調整所有金融工具的賬面值於損益中確認彼等的減值收益或虧損，惟貿易應收款項、合約資產及其他應收款項除外，此種情況下透過虧損撥備賬確認相應調整。

##### 金融負債

##### **初始確認及計量**

金融負債於初始確認時被分類為或然代價、貸款及借款及應付款項。

初始確認所有金融負債時，按公允價值計量，倘屬貸款及借款及應付款項，則須扣除直接應佔交易成本。

本集團的金融負債包括貿易應付款項及應付票據、其他應付款項、應付關連方款項、計息銀行及其他借款。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Financial liabilities (Continued)

**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 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 profit or loss.

**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 profit or loss.

## 2.4 主要會計政策概要(續)

## 金融負債(續)

**後續計量**

不同類別金融負債的後續計量方法如下：

*按攤銷成本計量的金融負債(貸款及借款)*

於初始確認後，計息貸款及借款其後使用實際利率法按攤銷成本計量，除非貼現影響不重大，在該情況下，則按成本列賬。收益及虧損於負債終止確認時並通過實際利率攤銷程序於損益中確認。

計算攤銷成本時，考慮收購產生的任何折價或溢價以及作為實際利率不可或缺的費用或成本。實際利率攤銷則計入損益內的財務成本。

**金融負債終止確認**

金融負債於負債責任解除、取消或屆滿時終止確認。倘現有金融負債被另一項由同一借貸人提供但絕大部分條款不同的負債所取代，或現有負債的條款經大幅修訂，則有關交換或修訂被視為終止確認原有負債並確認新負債處理，而相關賬面值的差額於損益中確認。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### 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.

##### Treasury shares

Own equity instruments which are reacquired and held by the Company or the Group (treasury shares) are recognised directly in equity at cost. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Group's own equity instruments.

##### Inventories

Inventories mainly include supplies and spare parts in relation to the Group's environmental protection facility and operation and maintenance services, and are stated at the lower of cost and net realisable value. Cost of inventories is calculated using the first-in-first-out method. 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 that 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.

#### 2.4 主要會計政策概要(續)

##### 抵銷金融工具

倘現時有可強制執行的法定權利就已確認金額進行抵銷，並且有意圖按淨額基準結算或同時變現資產及結算負債，則金融資產與金融負債可抵銷且淨額於財務狀況表列報。

##### 庫存股份

由本公司或本集團購回並持有的本身的股本工具(庫存股份)按成本直接在權益中確認。當本集團本身的股本工具買賣、發出或註銷時，不會在損益中確認收益或虧損。

##### 存貨

存貨主要包括有關本集團環保設施及營運和維護服務的物資及部件，按成本及可變現淨值兩者的較低者列賬。存貨成本使用先入先出法計算。可變現淨值乃按估計售價減任何達致完成及出售所產生的估計成本而計算。

##### 現金及現金等價物

就綜合現金流量表而言，現金及現金等價物包括手頭現金及活期存款，以及可隨時轉換成已知金額的現金、價值變動風險不大且購買時一般具有不超過三個月的短暫期限的短期高流通投資，減除須按要求償還及組成本集團現金管理不可或缺部分的銀行透支。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

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## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Cash and cash equivalents (Continued)

For the purpose of the consolidated statement of financial position, cash and cash equivalents comprise cash and bank balances, time deposits, 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 profit or loss.

## 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 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.

## 2.4 主要會計政策概要(續)

## 現金及現金等價物(續)

就綜合財務狀況表而言，現金及現金等價物包括用途不受限制的現金及銀行結餘及定期存款。

## 撥備

撥備乃於因過往事件而須承擔現時責任(法定或推定)，而履行該責任將可能導致未來資源流出且該責任所涉金額能夠可靠估計時確認。

倘貼現影響重大，則確認的撥備金額為預期履行責任所需的未來支出於報告期末的現值。貼現現值隨時間增加的金額計入損益中的財務成本。

## 所得稅

所得稅包括即期及遞延稅項。與並非於損益確認的項目相關的所得稅亦不會於損益確認，而於其他全面收益或直接於權益確認。

即期稅項資產及負債乃按預期自稅務機關收回或支付予其的金額，根據於報告期結束前已頒佈或實質上已頒佈的稅率(及稅法)，經考慮本集團經營所在國家通行的詮釋及慣例計量。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Income tax (Continued)

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 and associates, 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.

#### 2.4 主要會計政策概要(續)

##### 所得稅(續)

遞延稅項採用負債法就於報告期末資產及負債的稅基與兩者用作財務報告的賬面值之間的所有暫時差額計提撥備。

遞延稅項負債乃就所有應課稅暫時差額而確認，惟下列情況除外：

- 遞延稅項負債乃因在一項並非業務合併的交易中初始確認商譽或資產或負債而產生，且於交易時並不影響會計溢利或應課稅溢利或虧損；及
- 就與於附屬公司及聯營公司的投資相關的應課稅暫時差額而言，暫時差額的撥回時間為可控制，且該等暫時差額於可預見將來可能不會撥回。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Income tax (Continued)

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 differences 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 and associates, 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 主要會計政策概要(續)

## 所得稅(續)

遞延稅項資產乃就所有可扣減暫時差額、未動用稅項抵免及任何未動用稅項虧損的結轉而確認。遞延稅項資產以可能有應課稅溢利用作抵銷可扣減暫時差額、未動用稅項抵免及未動用稅項虧損的結轉為限予以確認，惟下列情況除外：

- 與可扣減暫時差額有關的遞延稅項資產乃因在一項並非業務合併的交易中初次確認資產或負債而產生，且於交易時並不影響會計溢利或應課稅溢利或虧損；及
- 就與於附屬公司及聯營公司的投資相關的可扣減暫時差額而言，遞延稅項資產僅於暫時差額於可預見將來有可能撥回以及將有應課稅溢利用作對銷暫時差額的情況下，方予確認。

遞延稅項資產的賬面值於各報告期末審閱，並在不再可能有足夠應課稅溢利以動用全部或部分遞延稅項資產時，相應扣減該賬面值。未被確認的遞延稅項資產會於各報告期末重新評估，並在可能有足夠應課稅溢利以收回全部或部分遞延稅項資產時予以確認。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

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

#### 2.4 主要會計政策概要(續)

##### 所得稅(續)

遞延稅項資產及負債乃按預期適用於變現資產或清償負債期間的稅率，根據於報告期末前已頒佈或實質上已頒佈的稅率(及稅法)計量。

當且僅當本集團有可合法執行權利將即期稅項資產與即期稅項負債抵銷，且遞延稅項資產與遞延稅項負債與同一稅務機關對同一應課稅實體或於各未來期間預期有大額遞延稅項負債或資產需要結算或收回時，擬按淨額基準結算即期稅項負債及資產或同時變現資產及結算負債的不同應課稅實體徵收的所得稅相關，則遞延稅項資產與遞延稅項負債相抵銷。

##### 政府補助

倘能合理確定將會收取政府補助且符合所有附帶條件，則有關補助將按公允價值予以確認。倘補助與開支項目有關，即於擬補償成本的支銷期間內系統地確認為收入。

倘若本集團收到非貨幣資產的補助，則有關補助會以非貨幣資產的公允價值記錄入賬，並在相關資產的預期使用年限內每年按等額計入損益表。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Revenue recognition

**Revenue from contracts with customers**

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

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

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

- the customer simultaneously receives and consumes the benefits provided by the Group’s performance as the Group performs;
- the Group’s performance creates or enhances an asset that the customer controls as the Groups performs; or
- the Group’s performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

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

## 2.4 主要會計政策概要(續)

## 收入確認

**客戶合約收益**

本集團於履行履約責任時(或就此)確認收益,即當特定履約責任相關的貨品或服務的「控制權」轉讓予客戶時確認。

履約責任指可區分的單一貨品或服務(或組合貨品或服務)或大致相同的一系列可區分貨品或服務。

倘符合下列其中一項標準,按完全達成相關履約責任的進度隨時間轉移控制權及確認收益:

- 客戶於本集團履約的同時收取及消耗本集團履約所提供的利益;
- 本集團的履約創建或增強客戶於本集團履約時控制的資產;或
- 本集團的履約未創建對本集團具有替代用途的資產,而本集團有強制執行權收取至今已履約部分的款項。

否則,於客戶獲得可區分貨品或服務的控制權時確認收入。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Revenue recognition (Continued)

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

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.

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 IFRS 15.

#### 2.4 主要會計政策概要(續)

##### 收入確認(續)

##### **客戶合約收益(續)**

當合約代價包含可變金額，代價估計為本集團轉讓貨品或服務予客戶時將有權換取的金額。可變代價於合約訂立時作估計並受限制，直至已確認的累計收入金額不大可能出現重大收入撥回，其時可變代價的相關不確定性隨即獲解決。

當合約包含融資組成部分，其向客戶提供重大利益，為轉移貨物或服務予該客戶融資超過一年，則收入按應收款項金額的現值計量，並以於合約起始時本集團與該客戶之間的單獨融資交易反映的折現率折現。當合約包含融資組成部分，其向本集團提供重大財務利益超過一年，則合約下確認的收入包括實際利率法下合約負債的利息支出。對於客戶付款與轉移承諾貨物或服務之間的時間差距為一年或以下的合約，使用國際財務報告準則第15號的權宜方法，即交易價格不就重大融資組成部分的影響作出調整。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Revenue recognition (Continued)

**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.

## 2.4 主要會計政策概要(續)

## 收入確認(續)

**建造服務**

提供建造服務的收益使用計量已完成服務的進度的投入法於一段時間內予以確認，原因是本集團的履約創造或改良客戶在資產被創造或改良時已控制的資產。投入法乃按已產生的實際成本相對於提供建造服務的估計總成本的比例確認收益。

向客戶申索指本集團向客戶收取作為未有計入原建造合約的工程範圍成本及利潤的報銷。申索額計入可變代價，並一直受限直至可變代價關聯的不確定性在其後得以解決時，以確認的累積收益金額中極有可能不會出現重大收益撥回。本集團使用預期價值法估計索償金額，因為此法最能預測本集團將有權獲取的可變代價金額。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Revenue recognition (Continued)

##### **Contracts with multiple performance obligations (including allocation of transaction price)**

For contracts that contain more than one performance obligations, including certain concession agreements that include “Build-Operate-Transfer” (“**BOT**”) and “Build-Own-Operate” (“**BOO**”) contracts, the Group allocates the transaction price to each performance obligation on a relative stand-alone selling price basis.

The stand-alone selling price of the distinct good or service underlying each performance obligation is determined at contract inception. It represents the price at which the Group would sell a promised good or service separately to a customer. If a stand-alone selling price is not directly observable, the Group estimates it using appropriate techniques such that the transaction price ultimately allocated to any performance obligation reflects the amount of consideration to which the Group expects to be entitled in exchange for transferring the promised goods or services to the customer.

#### 2.4 主要會計政策概要(續)

##### 收入確認(續)

##### **有多項履約責任(包括分配交易價)的合約**

就載有多於一項履約責任的合約(包括若干特許權協議,其中包括「建設－經營－移交」(「**BOT**」)及「建設－擁有－經營」(「**BOO**」)合約)而言,本集團按相對獨立的售價基準將交易價分配至各項履約責任。

各項履約責任相關的可區分貨品或服務的獨立售價於訂立合約時釐定,乃指本集團將向客戶獨立出售承諾貨品或服務的價格。倘獨立售價無法直接觀察所得,則本集團會採用適當技術對其作出估算,致令最終分配至任何履約責任的交易價反映本集團預期於向客戶轉交承諾貨品或服務時有權收取的代價金額。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

## Revenue recognition (Continued)

**Existence of significant financing component**

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

For contracts where the Group transferred the construction services before payments from customers in which the Group adjusts for the promised amount of consideration for significant financing components, the Group applies a discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. The Group recognises interest income during the period between the payment from customers and the transfer of the associated services.

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

## 2.4 主要會計政策概要(續)

## 收入確認(續)

**存在重大融資部分**

釐定交易價時，倘協定的付款時間(明示或暗示)為客戶或本集團提供有關向客戶轉讓貨品或服務的重大融資利益，本集團會就貨幣時間價值的影響調整承諾代價金額。於該等情況下，合約即包含重大融資部分。不論融資承諾是否明確列於合約或隱含在合約訂約方協定的付款條款中，均可能存在重大融資部分。

就本集團已就任何重大融資而調整已承諾的代價金額獲客戶付款之前經已轉移建造服務的合約而言，本集團應用將於本集團與客戶之間於合約開始的獨立融資交易中反映的貼現率。本集團確認獲客戶付款至轉移相關服務的期間內之利息收入。

對於付款與轉讓相關貨品或服務相隔期間不足一年的合約，本集團應用可行權宜之計，而不就任何重大融資部分調整交易價。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Revenue recognition (Continued)

##### **Revenue from other sources**

Interest income generated from service concession arrangement 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 receivable under service concession arrangement.

##### **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.

Rental income is recognised on a time proportion basis over the lease terms. Variable lease payments that do not depend on an index or a rate are recognised as income in the accounting period in which they are incurred.

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 主要會計政策概要(續)

##### 收入確認(續)

##### **其他來源的收入**

服務特許經營安排產生的利息收入使用實際利率法通過採用按金融工具的預計年期或更短期間(如適用)將估計未來現金收入貼現至服務特許經營安排項下應收款項賬面淨值的利率按應計基準確認。

##### **其他收入**

利息收入使用實際利率法通過採用按金融工具的預計年期或更短期間(如適用)將估計未來現金收入貼現至該金融資產賬面淨值的利率按應計基準確認。

租金收入按租期以時間比例確認。並非依賴於指數或比率的可變租賃付款於產生之會計期間確認為收入。

當股東收取款項的權利確立且與股息相關的經濟利益將流向本集團而股息金額能可靠計量時確認股息收入。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 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 assets are subject to impairment assessment, details of which are included in the accounting policies for impairment of financial assets.

**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.

## 2.4 主要會計政策概要(續)

**合約資產**

合約資產乃就換取已向客戶轉讓的貨品或服務而收取代價的權利。倘本集團於客戶支付代價或付款到期前將貨品或服務轉讓予客戶，則就附帶條件的已賺取代價確認合約資產。合約資產須進行減值評估，詳情載於有關金融資產減值的會計政策中。

**合約負債**

倘客戶於本集團轉讓相關貨品或服務前支付代價，則於作出付款或付款到期時(以較早者為準)確認合約負債。合約負債於本集團履行合約時(即相關貨品或服務轉移至客戶時)確認為收入。

**合約成本**

除撥充存貨、物業、廠房及設備及無形資產的成本外，就履行客戶合約而產生的成本在符合下列所有條件時資本化作為資產：

- (a) 該成本與實體可具體識別的合約或預期合約直接相關。
- (b) 該成本可以產生或提高實體用於滿足(或持續滿足)未來履約義務的資源。
- (c) 該成本預期可收回。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### Contract costs (Continued)

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

##### Share-based payments

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in note 36.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity. At the end of the reporting period, the Group revises its estimate of the number of equity instruments expected to vest.

The impact of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to the share premium.

Equity-settled share-based payment transactions with parties other than employees are measured at the fair value of the goods or services received, except where that fair value cannot be estimated reliably, in which case they are measured at the fair value of the equity instruments granted, measured at the date the entity obtains the goods or the counterparty renders the service.

#### 2.4 主要會計政策概要(續)

##### 合約成本(續)

已撥充資本的合約成本有系統地按照與資產相關收入確認模式一致的方式攤銷及自損益中扣除。其他合約成本則在產生時支銷。

##### 以股份為基礎的付款

向僱員及其他提供類似服務的人士作出的以股權結算以股份為基礎的付款乃於授出日期按股本工具的公允價值計量。有關釐定以股權結算以股份為基礎的交易的公允價值的詳情載於附註36。

於授出日期釐定以股權結算以股份為基礎的付款的公允價值乃於歸屬期間，基於本集團對將會最終歸屬的股本工具的估計，按直線法支銷，權益則相應增加。於各報告期末，本集團會修訂其對預計將會歸屬的股本工具數量的估計。

最初估計的影響(倘有)將於損益中確認，以使累積開支能夠反映修訂後的估計，並對股份溢價作出相應調整。

僱員以外人士參與的以股權結算以股份為基礎的付款交易按所接收商品或服務的公允價值計量，除非有關公允價值無法可靠估計，在此情況下，則按所授出股本工具的公允價值於實體取得商品或對手方提供服務之日計量。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Other employee benefits

#### **Defined contribution plans**

The Group's subsidiaries operating in PRC except for Hong Kong ("Mainland China") participate in a central defined contribution retirement benefit plan managed by the local municipal government in the locations in which they operate. Contributions are made based on a percentage of the companies' payroll costs and are charged to profit or loss as they become payable in accordance with the rules of the central defined contribution retirement benefit plan.

#### **Short term employee benefits**

Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A provision is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past services provided by the employee and the obligation can be estimated reliably.

#### **Termination benefits**

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

## 2.4 主要會計政策概要(續)

### 其他僱員福利

#### **界定供款計劃**

本集團在中國(香港及澳門除外)(「中國內地」)營運的附屬公司，參與其營業所在地的地方政府管理的中央界定供款退休福利計劃，有關供款乃根據公司薪金費用的某百分比計算，並根據中央界定供款退休福利計劃的規則，在其應付時在損益中支銷。

#### **短期僱員福利**

短期員工福利義務以非貼現基準計量，並於有關服務提供時列為開支。

倘本集團就員工過去提供的服務而擁有法定或推定義務支付該金額，且該義務能夠可靠地估計，預期根據短期現金獎金或職工分紅計劃將預期予支付的金額將作為撥備予以確認。

#### **離職福利**

離職福利於本集團不能再取消提供該等福利時及本集團確認涉及支付離職福利的重組成本時(以較早者為準)確認。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

##### 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 financial statements.

##### Foreign currencies

The Company's functional currency is RMB. In preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchanges prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing on that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated. Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

#### 2.4 主要會計政策概要(續)

##### 借款成本

收購、建造或生產合資格資產(即需待相當時間方可達致其擬定用途或出售的資產)直接應佔的借款成本資本化作為該等資產成本的一部分。當資產大致可作擬定用途或出售時,則停止將該等借款成本資本化。特定借款於用作合資格資產支出前的暫時性投資所賺取的投資收入,於已資本化的借款成本中扣除。所有其他借款成本均於產生期間支銷。借款成本包括實體就借取資金產生的利息及其他成本。

##### 股息

末期股息於股東大會上獲股東批准時確認為負債。擬派末期股息在財務報表附註中披露。

##### 外幣

本公司的功能貨幣為人民幣。編製個別集團實體的財務報表時,以該實體的功能貨幣以外之貨幣(即外幣)所作的交易按交易當日適用的匯率確認。於各報告期末,以外幣列值之貨幣項目按有關日期現行之匯率予以重新換算。按歷史成本計量以外幣列值之非貨幣項目不予重新換算。結算貨幣項目及重新換算貨幣項目所產生之匯兌差額於彼等產生期間於損益中確認。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

**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.

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

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

**Progress of completion of performance obligations**

The Group's revenue from construction contracts is recognised over time based on the stage of completion of the contract, which is determined as the proportion of the costs incurred relative to the estimated total costs to complete the contract. The Directors estimate both of the profit margin and contract cost at the beginning for each contract, revise the estimation of both profit margin and contract cost through regular review when the Directors consider there are changes in the assumptions throughout the contract period. The actual outcome of the contract in terms of its total revenue and costs may be higher or lower than the estimates and this will affect the revenue and profit recognised.

**3. 重大會計判斷及估計**

編製本集團的綜合財務報表時，管理層須作出會影響收入、開支、資產及負債的呈報金額以及相應披露和或然負債的披露的判斷、估計及假設。有關該等假設及估計的不確定因素可能導致於未來須就受影響的資產或負債賬面值作出重大調整的結果。

本集團會持續審視該等估計及相關假設。倘會計估計之修訂僅影響作出修訂估計之期間，則有關估計修訂將於作出修訂之期間確認，或倘修訂對本期及未來期間均會構成影響，則會於作出修訂之期間及未來期間確認。

以下為於報告期末有關未來之主要假設及估計不明朗因素之其他主要來源，具有導致資產及負債之賬面金額於下一財政年度內作出大幅調整之重大風險。

**完成履約責任的進度**

本集團來自建造合約的收益根據合約的完成階段隨著時間確認，而合約完成階段按所產生的成本佔完成該合約估計總成本的比例釐定。董事於各合約開始時估計溢利率及合約成本，並於董事認為整個合約期的假設有變時透過定期檢討而修改對溢利率及合約成本的估計。於有關合約總收益及成本的實際結果或會高於或低於估計值，這將會影響已確認的收益及溢利。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

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

#### Progress of completion of performance obligations (Continued)

In addition, the Group makes provision for expected loss on construction contracts based on the estimation of the outcome of the ongoing construction projects by the Directors' prior experience and industry averages for similar projects. The Group assesses periodically the expected return of construction contracts and if the expectation differs from the original estimate, such difference will impact the expected return in the period in which such estimate has been changed.

#### Provision of ECL for trade receivables, contract assets and amounts due from related parties-trade portion

The management of the Group estimates the amount of lifetime ECL of trade receivables, contract assets and amounts due from related parties-trade portion based on provision matrix through grouping of various debtors that have similar loss patterns, after considering ageing, internal credit ratings of trade debtors, repayment history and/or past due status of respective trade receivables. Estimated loss rates are based on historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information. In addition, trade receivables and contract assets that are credit-impaired are assessed for ECL individually. The loss allowance amount of the trade receivables, contract assets and amounts due from related parties-trade portion is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows with the consideration of expected future credit losses. The provision of ECL is sensitive to changes in estimates. 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 ECL and the Group's trade receivables, contract assets and amounts due from related parties-trade portion are disclosed in notes 22, 24 and 43 respectively.

### 3. 重大會計判斷及估計(續)

#### 完成履約責任的進度(續)

此外，本集團根據董事就類似項目的過往經驗及行業平均水平就正在進行的建築項目成果的估計對建築合約預期虧損計提撥備。本集團定期評估建築合約的預期回報及倘預期值有別於原始估計，有關差額將影響有關估計變動期間的預期回報。

#### 貿易應收款項、合約資產及應收關連方款項的貿易部分的預期信貸虧損撥備

本集團管理層經考慮貿易債務人的賬齡、內部信貸評級、還款歷史及／或個別貿易應收款項的逾期狀況後，將具有類似信貸風險特點的債務人分組，根據撥備矩陣估計貿易應收款項、合約資產及應收關連方款項的貿易部分的全期預期信貸虧損金額。估計虧損率乃根據過往可觀察的違約率除以債務人的預期賬齡，並就前瞻性資料作出調整。此外，已出現信貸減值的貿易應收款項、合約資產及應收關連方款項的貿易部分將個別評估預期信貸虧損。貿易應收款項及合約資產的虧損撥備金額乃以資產的賬面值與估計未來現金流量的現值加上預期未來信貸虧損兩者之間的差額計量。預期信貸虧損撥備對估計變動尤為敏感。本集團過往的信貸虧損經驗及對經濟狀況的預測亦未必反映客戶未來的實際違約情況。有關預期信貸虧損及本集團貿易應收款項、合約資產及應收關連方款項的貿易部分的資料分別於附註22、24及43披露。

**Notes to the Consolidated Financial Statements (Continued)**

綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

**3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (Continued)****Provision for customer claims**

The Directors estimate the results of relevant events based on the information available upon 31 December 2022 and recognise accrued expenses at a most probable amount. Actual results may be different depending on the future progress.

**Impairment of goodwill**

The Group determines whether goodwill is impaired at least on an annual basis. This requires an estimation of the value in use of the CGUs to which the goodwill is allocated. Estimating the value in use requires the Group to make an estimate of the expected future cash flows from the CGUs and also to choose a suitable discount rate in order to calculate the present value of those cash flows. The carrying amount of goodwill at 31 December 2022 was RMB6,488,000 (2021: RMB147,957,000). Further details are given in note 16.

**3. 重大會計判斷及估計(續)****就客戶索償所作撥備**

董事根據於2022年12月31日可得的資料來估計有關事件的結果，並按最可能的金額確認應計開支。視乎未來進度，實際結果或會有所不同。

**商譽減值**

本集團至少於每個會計年度評估商譽是否出現減值。這要求對被分配商譽的現金產出單元之使用價值進行估計。估計使用價值時，本集團需要估計來自現金產出單元的未來現金流量，同時選擇恰當的折現率計算該等現金流量之現值。於2022年12月31日，商譽的賬面值為人民幣6,488,000元(2021年：人民幣147,957,000元)。進一步詳情在附註16中列示。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

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

#### Impairment of non-financial assets (other than goodwill)

The Group assesses whether there are any indicators of impairment for all non-financial assets (including the right-of-use assets) at the end of each reporting period. Indefinite life intangible assets are tested for impairment annually and at other times when such an indicator exists. 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 CGU 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 the CGU and choose a suitable discount rate in order to calculate the present value of those cash flows.

#### Business combinations and goodwill

When the Group completes a business combination, the identifiable assets acquired and the liabilities assumed are recognised at their fair value. Management estimation is required to determine the fair values of the assets acquired, the liabilities assumed, and the purchase consideration, and on the allocation of the purchase consideration to the identifiable assets and liabilities. The fair values of the identifiable assets acquired and the liabilities assumed are determined using valuation techniques including the discounted cash flow model. The inputs to these models are taken from observable market where possible, but where this is not feasible, a degree of judgement and estimation is required in establishing fair values. Management must estimate the expected future cash flows and discount rate in order to calculate the fair values.

### 3. 重大會計判斷及估計(續)

#### 非金融資產(商譽除外)減值

本集團於各報告期末評估所有非金融資產(包括使用權資產)有否任何減值跡象。無限期年期的無形資產每年作減值測試，並於有減值跡象時在其他時間作減值測試。其他非金融資產在有跡象顯示賬面值可能無法收回時進行減值測試。倘資產或現金產生單位的賬面值超逾其可收回金額(即公允價值減出售成本與使用價值的較高者)，則視為已減值。公允價值減出售成本乃根據從同類資產的公平交易中的具約束力交易可得的數據或從可觀察市價減出售資產的增量成本計算。倘採用使用價值計算，則管理層須估計資產或現金產生單位的預期未來現金流量，選取合適的折現率以計算該等現金流量的現值。

#### 業務合併及商譽

倘本集團完成業務合併，則所收購的可識別資產及所承擔的負債按其公允價值確認。管理層於釐定所收購資產、所承擔負債、購買代價的公允價值，以及分配可識別資產及負債的購買代價時須作出估計。所收購的可識別資產及所承擔的負債的公允價值運用估值技術(包括貼現現金流模式)釐定。此等模式之輸入數據在可能情況下從可觀察市場取得，惟在不可行情況下，則須作出判斷及估計以釐定公允價值。管理層須估計預期未來現金流量及折現率以計算公允價值。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 4. OPERATING SEGMENT INFORMATION

For management purposes, the Group is organised into business units based on their products and services and has four reportable operating segments as follows:

- (a) Flue gas treatment business
- |                                                       |                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental protection facility engineering (“EPC”) | project design, procurement of equipment and materials, project construction and equipment instalment and testing services                                                                                                                                                                                |
| Operation and maintenance (“O&M”)                     | operation service and regular maintenance service for desulfurization and denitrification facilities and dust removal facilities                                                                                                                                                                          |
| Concession operation                                  | construction of infrastructure or acquisition of existing infrastructure from grantor, operation and maintenance of flue gas treatment project for a pre-defined period according to the concession contract and transferring the ownership of the infrastructure to the grantor at the end of the period |
| Others                                                | sales of by-products and others                                                                                                                                                                                                                                                                           |
- (b) Water treatment business mainly involves the sewage treatment for industrial parks in coal chemical, coking, steel and pharmaceutical sectors
- (c) Hazardous and solid waste treatment/disposal business, the new business of the Group in 2021, mainly involves in the detoxification, reduction and resource treatment and disposal of bulk solid waste and industrial hazardous waste

## 4. 經營分部資料

就管理目的，本集團根據其產品及服務而組織業務單位，並有以下四個可呈報經營分部：

- (a) 煙氣治理業務
- |                |                                                                     |
|----------------|---------------------------------------------------------------------|
| 環保設施工程 (“EPC”) | 項目設計、採購設備與材料、項目建設以及設備安裝及調試服務                                        |
| 運營及維護 (“運維”)   | 就脫硫及脫硝設施及除塵設施提供運營服務及常規維護服務                                          |
| 特許經營業務         | 建造基礎設施或向授予人收購現有基礎設施、根據特許經營合同於預先規定的期限運營及維護煙氣治理項目，以及於期末向授予人轉讓基礎設施的所有權 |
| 其他             | 銷售副產品及其他                                                            |
- (b) 水處理業務主要涉及煤化工、焦化、鋼鐵及醫藥等工業園區的污水處理
- (c) 危固廢處理處置業務，為本集團於2021年的新增業務，主要涉及大宗固廢及工業危廢的無害化、減量化及資源化處理

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
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#### 4. OPERATING SEGMENT INFORMATION (Continued)

- (d) Dual-carbon energy saving business mainly involves project engineering and design, procurement of equipment and materials, project construction, equipment installation and commissioning services

For the purposes of resources allocation and assessment of segment performance, the executive directors, being the chief operating decision maker (“CODM”), regularly review types of goods or services delivered or provided by focusing on different business models. CODM assesses the performance of the operating segments based on a measure of “reportable segment profit”, i.e., “revenue less cost of sales”. The Group does not allocate depreciations and amortisations other than those presented in cost of sales and services, impairment of other non-current asset, impairment losses on financial and contract assets. The Group also does not allocate other income and other gains, other expense and losses, selling and distribution expenses, administrative expenses, research and development expenses, finance costs and share of profit of associates to its segments, as the CODM does not use such information to allocate resources to or evaluate the performance of the operating segments.

No segment assets and liabilities are presented as the CODM does not regularly review segment assets and liabilities.

#### 4. 經營分部資料(續)

- (d) 雙碳節能業務主要涉及項目工程及設計、採購設備及材料、項目建設、設備安裝及調試服務

為進行資源分配及分部業績評估，執行董事(即主要運營決策者(「主要運營決策者」))通過專注於不同業務模式定期審查所交付貨物或所提供服務的類別。主要運營決策者根據對「可報告分部溢利」(即收入減銷售成本)的計量，評估經營分部的表現。除在銷售及服務成本、其他非流動資產減值、金融及合約資產減值虧損中列報的折舊及攤銷外，本集團並無分配折舊及攤銷。本集團亦無向其分部分配其他收入及其他收益、其他開支及虧損、銷售及分銷開支、行政開支、研發開支、財務費用及分佔聯營公司溢利，因為主要運營決策者並不使用該等資料來分配資源或評估經營分部的表現。

由於主要運營決策者並未定期審閱分部資產及負債，因此，概無呈列分部資產及負債。

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度4. OPERATING SEGMENT INFORMATION 4. 經營分部資料(續)  
(Continued)

		Segment revenue (Note 5)		Segment profit	
		分部收益(附註5)		分部溢利	
		2022	2021	2022	2021
		2022年	2021年	2022年	2021年
		RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元
<b>Flue gas treatment business</b>	<b>煙氣治理業務</b>				
EPC	EPC	568,983	715,703	33,804	50,976
O&M	運維	400,429	394,927	113,971	91,757
Concession operation	特許經營	504,104	582,157	128,126	138,071
Others	其他	36,500	58,802	35,744	58,584
<b>Water treatment business</b>	<b>水處理業務</b>	<b>270,878</b>	<b>100,286</b>	<b>58,084</b>	<b>36,815</b>
<b>Hazardous and solid waste treatment/disposal business</b>	<b>危固廢處理處置業務</b>	<b>11,717</b>	<b>20,062</b>	<b>(935)</b>	<b>4,386</b>
<b>Dual-carbon energy saving business</b>	<b>雙碳節能業務</b>	<b>107,637</b>	<b>220,235</b>	<b>21,984</b>	<b>6,970</b>
Total	總計	1,900,248	2,092,172	390,778	387,559
Unallocated other income and gains	未分配其他收入及收益			214,861	151,137
Unallocated other expense and losses	未分配其他開支及虧損			(247,092)	(14,574)
Unallocated selling and distribution expenses	未分配銷售及分銷開支			(19,910)	(30,189)
Unallocated administrative expenses	未分配行政開支			(89,726)	(89,546)
Unallocated research and development expenses	未分配研發開支			(58,662)	(40,040)
Unallocated (impairment losses)/ reversal of impairment losses on financial and contract assets	未分配金融及合約資產的(減值虧損)/減值虧損撥回			(15,078)	892
Unallocated share of profits of an associate	未分配分佔一家聯營公司溢利			14,395	30,601
Unallocated finance costs	未分配財務成本			(13,667)	(9,786)
Profit before tax	除稅前溢利			175,899	386,054

Segment revenue reported above represents revenue generated from external customers. There were no inter-segment sales for the year ended 31 December 2022 (2021: nil).

上文呈報的分部收益指來自外部客戶的收益。截至2022年12月31日止年度概無分部間銷售(2021年:無)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 4. OPERATING SEGMENT INFORMATION 4. 經營分部資料(續)

(Continued)

## Other segment information

## 其他分部資料

		Total depreciation and amortisation 折舊及攤銷總額	
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Depreciations and amortisations presented in cost of sales and services</b>	在銷售及服務成本中列報的折舊及攤銷		
Flue gas treatment business	煙氣治理業務		
EPC	EPC	65	52
O&M	運維	6,441	8,195
Concession operation	特許經營	61,086	57,867
Water treatment business	水處理業務	24,922	15,601
Hazardous and solid waste treatment/ disposal business	危固廢處理處置業務	4,469	2,182
Sub-total	小計	96,983	83,897
<b>Unallocated depreciations and amortisations</b>	未分配折舊及攤銷		
Other than those presented in cost of sales and services	除在銷售及服務成本中列報者外	26,445	16,214
Total	總計	123,428	100,111

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

#### 4. OPERATING SEGMENT INFORMATION (Continued)

##### Geographical information

The Group primarily operates in PRC. Substantially all non-current assets and revenue of the Group are located in and generated from PRC.

##### Information about a major customer

There is no customer contributing over 10% to the total revenue of the Group in 2022 and 2021.

#### 5. REVENUE

An analysis of revenue is as follows:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Revenue from contracts with customers	客戶合約收益	1,857,797	2,068,258
Revenue from other sources	來自其他來源的收益		
Interest income generated from service concession arrangement	服務特許經營安排所產生的利息收入	42,451	23,914
		<b>1,900,248</b>	<b>2,092,172</b>

#### 4. 經營分部資料(續)

##### 地區資料

本集團主要於中國經營業務。本集團幾乎所有非流動資產及收益均位於中國及自中國產生。

##### 主要客戶資料

於2022年及2021年，概無貢獻本集團總收益10%以上的客戶。

#### 5. 收益

收益分析如下：



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers

## (a) Disaggregation of revenue

For the year ended 31 December 2022

## 5. 收益(續)

## 客戶合約收益

## (a) 收益的細分

截至2022年12月31日止年度

		Flue gas treatment business 煙氣治理業務				Water treatment business	Hazardous and solid waste treatment/ disposal business 危固廢處理	Dual-carbon energy saving business	Total
		EPC	O&M	Concession operation	Others				
		EPC	運維	特許經營	其他	水處理業務	處置業務	雙碳節能業務	總計
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元
<b>Types of goods and services</b>	<b>貨品及服務種類</b>								
Rendering of services	提供服務	568,983	400,429	461,653	-	270,878	11,717	107,637	1,821,297
Sales of goods	銷售貨品	-	-	-	36,500	-	-	-	36,500
Total revenue from contracts with customers	客戶合約收益總額	568,983	400,429	461,653	36,500	270,878	11,717	107,637	1,857,797
<b>Geographical market</b>	<b>地區市場</b>								
Mainland China	中國大陸	568,983	400,429	461,653	36,500	270,878	11,717	107,637	1,857,797
Total revenue from contracts with customers	客戶合約收益總額	568,983	400,429	461,653	36,500	270,878	11,717	107,637	1,857,797
<b>Timing of revenue recognition</b>	<b>確認收益的時間性</b>								
Services transferred over time	於一段時間轉移的服務	568,983	400,429	461,653	-	270,878	11,717	107,637	1,821,297
Goods transferred at a point in time	於某時間點轉移的貨品	-	-	-	36,500	-	-	-	36,500
Total revenue from contracts with customers	客戶合約收益總額	568,983	400,429	461,653	36,500	270,878	11,717	107,637	1,857,797

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 5. REVENUE (Continued)

Revenue from contracts with customers (Continued)

## (a) Disaggregation of revenue (Continued)

For the year ended 31 December 2021

## 5. 收益(續)

客戶合約收益(續)

## (a) 收益的細分(續)

截至2021年12月31日止年度

Types of goods and services	貨品及服務種類	Flue gas treatment business 煙氣治理業務				Water treatment business 水處理業務	Hazardous and solid waste treatment/disposal business 危固廢處理處置業務	Dual-carbon energy saving business 雙碳節能業務	Total
		EPC	O&M	Concession operation	Others				
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元
Rendering of services	提供服務	715,703	394,927	558,243	-	100,286	20,062	220,235	2,009,456
Sales of goods	銷售貨品	-	-	-	58,802	-	-	-	58,802
Total revenue from contracts with customers	客戶合約收益總額	715,703	394,927	558,243	58,802	100,286	20,062	220,235	2,068,258
Geographical market	地區市場								
Mainland China	中國大陸	715,703	394,927	558,243	58,802	100,286	20,062	220,235	2,068,258
Total revenue from contracts with customers	客戶合約收益總額	715,703	394,927	558,243	58,802	100,286	20,062	220,235	2,068,258
Timing of revenue recognition	確認收益的時間性								
Services transferred over time	於一段時間轉移的服務	715,703	394,927	558,243	-	100,286	20,062	220,235	2,009,456
Goods transferred at a point in time	於某時間點轉移的貨品	-	-	-	58,802	-	-	-	58,802
Total revenue from contracts with customers	客戶合約收益總額	715,703	394,927	558,243	58,802	100,286	20,062	220,235	2,068,258



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (a) Disaggregation of revenue (Continued)

Set out below is the reconciliation of the revenue from contracts with customers to the amounts disclosed in the segment information:

## 5. 收益(續)

## 客戶合約收益(續)

## (a) 收益的細分(續)

以下為客戶合約收益與分部資料所披露金額之對賬：

		Revenue from contracts with customers	
		客戶合約收益	
		2022	2021
		2022年	2021年
		RMB'000	RMB'000
		人民幣千元	人民幣千元
Flue gas treatment business	煙氣治理業務		
EPC	EPC	568,983	715,703
O&M	運維	400,429	394,927
Concession operation	特許經營	461,653	558,243
Others	其他	36,500	58,802
Water treatment business	水處理業務	270,878	100,286
Hazardous and solid waste treatment/disposal business	危固廢處理處置業務	11,717	20,062
Dual-carbon energy saving business	雙碳節能業務	107,637	220,235
Total	總計	1,857,797	2,068,258

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (a) Disaggregation of revenue (Continued)

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Revenue recognised that was included in contract liabilities at the beginning of the reporting period:</b>	<b>計入報告期初的合約負債的已確認收益：</b>		
Rendering of services	提供服務	103,461	60,952

## (b) Performance obligations

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

## (i) Flue gas treatment business

EPC services

EPC services primarily involves project engineering and design, procurement of equipment and materials, project construction, equipment installation and commissioning services in relation to desulfurization and denitrification and dust removal for coal-fired power plants.

The Directors have assessed that the Group's performance creates and/or enhances an asset that the customers control as the Group performs. Therefore, the Directors have satisfied that there is only one single performance obligation, and the services are satisfied over time.

## 5. 收益(續)

## 客戶合約收益(續)

## (a) 收益的細分(續)

下表列示於本報告期間內確認並計入報告期初的合約負債之收益金額：

## (b) 履約責任

有關本集團履約責任的資料概述如下：

## (i) 煙氣治理業務

EPC服務

EPC服務主要涉及為燃煤電廠的脫硫、脫硝及除塵提供項目工程設計、設備與材料採購、項目建設、設備安裝及調試服務。

董事確定本集團的履約為客戶創造資產及／或增強客戶控制的資產。因此，董事認為只有一種履約責任，而服務須經一段時間達成。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 5. REVENUE (Continued)

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

##### (b) Performance obligations (Continued)

##### (i) Flue gas treatment business (Continued)

##### EPC services (Continued)

Accordingly, revenue from EPC services, which are generally under project-based development contracts, is recognised based on the progress towards complete satisfaction of a performance obligation which is determined as the proportion of the costs incurred for the works (i.e. subcontracting costs, material costs and direct staff costs incurred) performed to date relative to the estimated total costs to complete the satisfaction of these services and the margin of each project, to the extent that the amount can be measured reliably and its recovery is considered probable.

The Group's construction contracts include payment schedules which require stage payments over the construction period once certain specified milestones are reached. The Group requires certain customers to provide upfront payments range from 10% to 30% of total contract sum, when the Group receives a deposit before construction commences, this will give rise to contract liabilities at the start of a contract, until the revenue recognised on the specific contract exceeds the amount of the deposit.

#### 5. 收益(續)

##### 客戶合約收益(續)

##### (b) 履約責任(續)

##### (i) 煙氣治理業務(續)

##### EPC服務(續)

因此，EPC服務(一般根據項目式開發合約進行)的收益，按照合約完成階段確認。合約完成階段按各項目迄今已完成工作所產生的成本(即分包成本、物料成本及直接員工成本)佔完成該等服務估計總成本加上溢利的比例釐定，惟須以能可靠計量且可能收回的金額為限。

本集團的建築合約包括付款時間表，其規定一旦達到若干指定的里程碑，需要在有關建築期間分期付款。本集團要求若干客戶提供前期按金佔合約總額的10%至30%，當本集團於建築開始前收到按金，合約負債將在合約開始時產生，直至特定合約的已確認收益超出按金金額。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (b) Performance obligations (Continued)

## (i) Flue gas treatment business (Continued)

## EPC services (Continued)

About 5%-10% of the contract price is withheld by the customers and will be released upon completion of the warranty period (normally 1-2 years after the date of the completion of the construction). Retention receivables, prior to expiration of the warranty period, are classified as contract assets and are reclassified to trade receivables when the warranty period expires. The Directors have assessed the effects of the financing component is not significant at contract level and therefore revenue is not adjusted for the effects of time value of money.

## O&amp;M services

O&M services mainly include the provision of operation service and regular maintenance service for desulfurization and denitrification facilities and dust removal facilities owned by their customers, where the Group's work scope includes the full operation, testing and repairing, upgrading and maintenance of flue gas treatment system/facilities owned by these coal-fired power plants.

## 5. 收益(續)

## 客戶合約收益(續)

## (b) 履約責任(續)

## (i) 煙氣治理業務(續)

## EPC服務(續)

合約價格約5%-10%由客戶保留，並會於保證期完結時（一般為完成建設的日期後1至2年）發放。在保證期屆滿前，保留應收款項分類為合約資產，並於保證期屆滿時重新分類至貿易應收款項。董事已在合約層面評估融資組成部分的影響並不重大，因此不就時間值的影響調整收益。

## 運維服務

運維服務主要包括對客戶擁有的脫硫及脫硝設施及除塵設施提供運營服務及常規維護服務。本集團的工作範圍包括全面運營、檢修、升級及維護有關燃煤電廠擁有的煙氣處理系統／設施。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 5. REVENUE (Continued)

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

##### (b) Performance obligations (Continued)

##### (i) Flue gas treatment business (Continued)

##### O&M services (Continued)

Pursuant to certain contracts of rendering related O&M services, the transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring O&M services to customers. Additionally, the O&M services typically meet the criterion where customers simultaneously receive and consume the benefits of the Group's performance as the Group performs. Therefore, the Directors have satisfied that the performance obligation of rendering O&M services are satisfied over time and the revenue is recognised over the service period.

For certain O&M services and the O&M service under service concession arrangements, the Group applies the practical expedient by recognising revenue in the amount to which the Group has right to invoice. The transaction price allocated to these unsatisfied contracts is not disclosed as permitted by IFRS 15.

#### 5. 收益(續)

##### 客戶合約收益(續)

##### (b) 履約責任(續)

##### (i) 煙氣治理業務(續)

##### 運維服務(續)

根據提供相關運維服務的合約，交易價格即本集團預期向客戶提供運維服務應得的代價。此外，運維服務通常符合客戶同時獲得及使用本集團履約所得利益的準則。因此，董事認為提供運維服務的履約責任需經一段時間達成，並在服務期確認。

就若干運營與維護服務及服務特許經營安排的運營與維護服務而言，本集團透過確認本集團有權開具發票的金額之收益應用可行權宜方法。按國際財務報告準則第15號准許，分配至該等未履行合約的交易價格並未披露。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (b) Performance obligations (Continued)

## (i) Flue gas treatment business (Continued)

## Concession operation

In a typical BOT and BOO project, the Group is responsible for the financing, investment, construction, and operation of the projects according to the concession contracts with their customers. After the completion of the constructions, the Group operates and maintains the project for a pre-defined period, which is typically 15 to 20 years, when they are entitled to collecting revenues generated from the projects during the terms of the contracts.

The Directors have assessed that BOT and BOO services comprise two separate performance obligations, the construction of the facilities and the operating and maintenance service upon the completion of the construction of facilities, equivalent to a combination of EPC service and O&M service. Revenue recognition for each performance obligation follows the comparable stand-alone services specified above in EPC and O&M.

## Others

Other revenues from sales of by-products and others are recognised at the point of time when the control of goods is transferred to the customer.

## 5. 收益(續)

## 客戶合約收益(續)

## (b) 履約責任(續)

## (i) 煙氣治理業務(續)

## 特許經營

在一般BOT及BOO項目中，本集團負責根據與客戶訂立的特許經營合同為項目籌措資金、投資、建設及運營。竣工後，本集團亦於預先規定的期限（通常為15至20年）內控制、運營及維持項目，本集團有權在合約期內收取項目所得收益。

董事已評估，BOT及BOO服務包括兩項個別的履約責任，即設施建造完成後的設施建設、運營及維修服務，相當於EPC服務及運維服務的結合。各履約責任的收益確認遵循上文EPC及運維業務中指明的可比較的獨立服務。

## 其他

銷售副產品及其他的收益在貨品的控制權轉移至客戶時確認。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 5. REVENUE (Continued)

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

##### (b) Performance obligations (Continued)

##### (ii) Water treatment business

The water treatment business mainly involves the sewage treatment for industrial parks in coal chemical, coking and steel sectors. The Group's work scope includes the full operation, testing and repairing, upgrading and maintenance of water treatment system.

Pursuant to certain contracts of rendering related water treatment services, the transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring water treatment services to customers. Additionally, the water treatment services typically meet the criterion where customers simultaneously receive and consume the benefits of the Group's performance as the Group performs. Therefore, the Directors have satisfied that the performance obligation of rendering water treatment services are satisfied over time and the revenue is recognised over the service period.

EPC services in water treatment business primarily involves project engineering and design, procurement of equipment and materials, project construction, equipment installation and commissioning services in relation to industrial wastewater treatment for metallurgical plant. Revenue recognition for relative performance obligations follows the comparable EPC services of flue gas treatment business specified above.

#### 5. 收益(續)

##### 客戶合約收益(續)

##### (b) 履約責任(續)

##### (ii) 水處理業務

水處理業務主要涉及煤化工、焦化及鋼鐵等工業園區的污水處理。本集團的工作範疇包括全面運營、檢修、升級及維護水處理系統。

根據提供相關水處理服務的合約，交易價格即本集團預期向客戶提供水處理服務應得的代價。此外，水處理服務通常符合客戶同時獲得及使用本集團履約所得利益的準則。因此，董事認為提供水處理服務的履約責任需經一段時間達成，而有關收益於服務期確認。

水處理業務中的EPC服務主要涉及為冶煉廠的工業廢水處理提供項目工程設計、設備與材料採購、項目建設、設備安裝及調試服務。有關履約責任的收益確認遵循上文所列明有關煙氣治理業務所提供的可比較的林PC服務。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (b) Performance obligations (Continued)

## (iii) Hazardous and solid waste treatment/disposal business

The hazardous and solid waste treatment/disposal business mainly involves in the detoxification, reduction and resource treatment and disposal of bulk solid waste and industrial hazardous waste. It mainly includes the provision of operation service and regular maintenance service for relevant facilities owned by the Group, where the Group's work scope includes the full operation, testing and repairing, upgrading and maintenance of hazardous and solid waste treatment system/facilities owned by the Group.

Pursuant to certain contracts of rendering related hazardous and solid waste treatment/disposal services, the transaction price is the amount of consideration to which the Group expects to be entitled in exchange for transferring relevant services to customers. Additionally, the hazardous and solid waste treatment/disposal services typically meet the criterion where customers simultaneously receive and consume the benefits of the Group's performance as the Group performs. Therefore, the Directors have satisfied that the performance obligation of rendering hazardous and solid waste treatment/disposal services are satisfied over time and the revenue is recognised over the service period.

## 5. 收益(續)

## 客戶合約收益(續)

## (b) 履約責任(續)

## (iii) 危固廢處理處置業務

危固廢處理處置業務主要涉及大宗固廢及工業危廢的無害化、減量化及資源化處理和處置。有關服務主要包括對集團或其客戶擁有的相關設施提供運營服務及常規維護服務，而本集團的工作範疇包括全面運營、檢修、升級及維護集團或其客戶擁有的危固廢處理系統／設施。

根據提供相關危固廢處理處置服務的若干合約，交易價格即本集團預期向客戶提供危固廢處理處置服務應得的代價。此外，危固廢處理處置服務通常符合客戶同時獲得及使用本集團履約所得利益的準則。因此，董事認為提供危固廢處理處置服務的履約責任需經一段時間達成，並在服務期確認。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

#### 5. REVENUE (Continued)

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

##### (b) Performance obligations (Continued)

##### (iv) Dual-carbon energy saving business

The dual-carbon energy saving business mainly involves in project engineering and design, procurement of equipment and materials, project construction, equipment installation and commissioning services in relation to BOT project.

The Directors have assessed that BOT services in dual-carbon energy saving business comprise two separate performance obligations, the construction of the facilities and the operating and maintenance service upon the completion of the construction of facilities, equivalent to a combination of EPC service and O&M service. Revenue recognition for each performance obligation follows the comparable stand-alone services specified above in EPC and O&M.

#### 5. 收益(續)

##### 客戶合約收益(續)

##### (b) 履約責任(續)

##### (iv) 雙碳節能業務

雙碳節能業務主要涉及有關BOT項目的項目工程及設計、採購設備及材料、項目建設、設備安裝及調試服務。

董事已評估，雙碳節能業務的BOT服務包括兩項個別的履約責任，即設施建造完成後的設施建設、運營及維修服務，相當於EPC服務及運維服務的結合。各履約責任的收益確認遵循上文EPC及運維所指明的可比較的獨立服務。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 5. REVENUE (Continued)

## Revenue from contracts with customers (Continued)

## (b) Performance obligations (Continued)

## (iv) Dual-carbon energy saving business (Continued)

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

## 5. 收益(續)

## 客戶合約收益(續)

## (b) 履約責任(續)

## (iv) 雙碳節能業務(續)

於12月31日分配至餘下履約責任(未履行或部分履行)的交易價格金額如下:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Amounts expected to be recognised as revenue for the EPC services and construction services under concession arrangement and dual-carbon energy saving business:</b>	<b>預期就特許經營安排項下的EPC服務及建造服務以及雙碳節能業務確認為收益的金額:</b>		
Within one year	一年內	470,783	476,928
More than one year but not more than two years	一年以上但不超過兩年	-	36,009
		<b>470,783</b>	<b>512,937</b>
<b>Amounts expected to be recognised as revenue for the O&amp;M services with fixed total contract amounts:</b>	<b>預期就具固定合約總額的運維服務確認為收益的金額:</b>		
Within one year	一年內	47,514	37,167
More than one year but not more than two years	一年以上但不超過兩年	26,461	23,229
More than two years	兩年以上	7,472	3,525
		<b>81,447</b>	<b>63,921</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 6. OTHER INCOME AND GAINS

## 6. 其他收入及收益

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Gain on adjustment of acquisition consideration (note)	調整收購代價之收益 (附註)	160,921	-
Interest income	利息收入	11,064	15,660
Gain on fair value adjustment of contingent consideration (note)	或然代價公允價值調整之收益 (附註)	10,060	-
Government grants	政府補助	7,087	3,446
– Taxes refunded	– 退回稅項	5,005	2,581
– Compensation for expenses incurred	– 產生開支的補償	2,082	865
Dividend income from financial assets at fair value through profit or loss	按公允價值計入損益的金融 資產之股息收入	1,533	4,423
Gains on fair value changes of financial asset at fair value through profit or loss	按公允價值計入損益的金融資 產之公允價值收益	-	106,362
Gains on disposal of financial assets at fair value through profit or loss	出售按公允價值計入損益的金 融資產之收益	-	4,586
Other operating income and expense, net	其他經營收入及開支淨額	-	1,557
Gains on disposal of an investment in an associate	出售於聯營公司的投資之收益	-	1,101
Gains on disposal of non-current assets	出售非流動資產之收益	-	153
Foreign exchange gains, net	匯兌收益淨額	11,930	-
Others	其他	12,266	13,849
<b>Total</b>	<b>總計</b>	<b>214,861</b>	<b>151,137</b>

Note: On 12 July 2022, Opinions on Strengthening Environmental Supervision on Strict Prohibition of Cross-Province Hazardous Waste Transfer for Disposal (《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》) was issued by the Qinghai Province People's Government, which strictly prohibits any cross-province transfer of non-recyclable and hazardous waste for incineration and landfill disposal. Considered that the specific assumptions adopted for the valuation of the entire interest in Qinghai Boqi as at 30 June 2021 had changed significantly, the Directors and the original shareholder of Qinghai Boqi agreed to renegotiate and enter into the supplemental agreements to revise the total consideration for the entire equity interests of Qinghai Boqi from RMB230,000,000 to RMB50,500,000. Therefore, the management reversed the long-term payables and contingent consideration initially recognised on the acquisition date and recognised a gain on adjustment of acquisition consideration of RMB160,921,000 and a gain on fair value adjustment for contingent consideration of RMB10,060,000.

附註：於2022年7月12日，青海省人民政府印發《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》，嚴禁跨省轉運不可回收危險廢物焚化及填埋處置。考慮到就青海博奇全部權益於2021年6月30日的估值所採用的具體假設已發生重大變動，董事與青海博奇的原先股東同意重新磋商並訂立補充協議，將青海博奇全部權益的總代價由人民幣230,000,000元修訂至人民幣50,500,000元。因此，管理層已推翻於收購日期初步確認的長期應付款項及或然代價，改為確認調整收購代價的收益人民幣160,921,000元及或然代價的公允價值調整收益人民幣10,060,000元。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 7. PROFIT BEFORE TAX

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

## 7. 除稅前溢利

本集團的除稅前溢利已扣除/(計入)下列各項：

			2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
		Notes 附註		
Cost of inventories recognised as expenses (included in cost of sales and services)	確認為開支的存貨成本 (計入銷售及服務成本)		658,110	763,923
Depreciation of property, plant and equipment	物業、廠房及設備折舊	13	42,585	35,620
Depreciation of investment properties	投資物業折舊	14	644	808
Amortisation of other intangible assets*	其他無形資產攤銷*	17	72,084	57,169
Amortisation of other non-current assets	其他非流動資產攤銷		8,115	6,514
			123,428	100,111
Impairment of goodwill**	商譽減值**		141,469	-
Auditor's remuneration	核數師酬金		3,351	2,706
Employee benefit expense (excluding directors' and chief executive's remuneration (note 9)):	僱員福利開支(不包括董事及主要行政人員的薪酬(附註9)):	9		
Wages, salaries and other benefits	工資、薪金及其他福利		156,236	207,420
Contributions to retirement benefit scheme	退休福利計劃供款		13,175	17,017
Share-based payment expenses	以股份為基礎的付款開支	36	4,334	4,524
			173,745	228,961
Impairment/(reversal of impairment) of financial and contract assets:	金融及合約資產減值/(減值撥回):			
Impairment/(reversal of impairment) of trade receivables	貿易應收款項減值/(減值撥回)	22	11,188	(5,382)
Impairment of other receivables	其他應收款項減值		3,758	859
Impairment of long-term receivable	長期應收款項減值		294	1,072
Impairment of contract assets	合約資產減值	23	148	1,915
Impairment/(reversal of impairment) amounts due from related parties	應收關連方款項減值/(減值撥回)	43	926	(1,735)
(Reversal of impairment)/impairment of receivables under service concession arrangement	服務特許經營安排下應收款項(減值撥回)/減值	18	(1,236)	2,379
			15,078	(892)
(Reversal of provision)/provisions for inventory	存貨(撥備撥回)/撥備		(190)	160
Impairment of other non-current assets	其他非流動資產減值		-	3,513
Impairment of property, plant and equipment	物業、廠房及設備減值	13	-	479
Impairment of other intangible asset**	其他無形資產減值**	17	27,612	-
Gross rental income from investment properties	投資物業租金收入總額		(767)	(582)
Less: Direct operating expense (including depreciation) incurred for investment properties that generated rental income during the year (included in other operating income and expense, net)	減: 年內產生租金收入的投資物業產生的直接營運開支(包括折舊)(計入其他營運收入及開支淨額)		644	808
			(123)	226
Share of profits of an associate	分佔一家聯營公司溢利		(14,395)	(30,601)

\* The amortisation of other intangible assets for the year is included in "Cost of sales and services" in the consolidated statement of profit or loss.

\*\* The impairment of goodwill and the impairment of other intangible assets are included in "Other expenses" in the consolidated statement of profit or loss.

\* 年內其他無形資產攤銷計入綜合損益表內的「銷售及服務成本」。

\*\* 商譽減值及其他無形資產減值計入綜合損益表內的「其他開支」。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
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## 8. FINANCE COSTS

## 8. 財務成本

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Interest on bank loans and other borrowings	銀行貸款及其他借款的利息	11,608	7,530
Interest on lease liabilities	租賃負債利息	2,059	2,256
Total	總計	13,667	9,786

## 9. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION

## 9. 董事及主要行政人員薪酬

Directors' and chief executive's remuneration 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:

根據上市規則、香港公司條例第383(1)(a)、(b)、(c)及(f)條及公司(披露董事利益資料)規例第2部披露之年內董事及主要行政人員薪酬如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Fees	袍金	300	300
Other emoluments	其他酬金		
Salaries and other allowances	薪金及其他津貼	1,781	1,700
Pension scheme contributions	退休金計劃供款	57	52
		1,838	1,752
		2,138	2,052

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

9. DIRECTORS' AND CHIEF EXECUTIVE'S  
REMUNERATION (Continued)

## 9. 董事及主要行政人員薪酬(續)

## (a) Independent non-executive directors

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

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Mr. Liu Genyu	劉根鈺先生	100	100
Mr. Xie Guozhong	謝國忠先生	100	100
Mr. Lu Zhifang	陸志芳先生	100	100
		300	300

There were no other emoluments payable to the independent non-executive directors during the year (2021: nil).

## (a) 獨立非執行董事

年內支付予獨立非執行董事之袍金如下：

年內並無應付予獨立非執行董事的其他酬金(2021年：無)。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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9. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION (Continued) 9. 董事及主要行政人員薪酬(續)

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

(b) 執行董事、非執行董事及主要行政人員

2022	2022年	Directors' fee 董事袍金 RMB'000 人民幣千元	Salaries and other allowances 薪金及其他津貼 RMB'000 人民幣千元	Pension scheme contributions 退休金計劃供款 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
Executive directors:	執行董事：				
Mr. Zeng Zhijun (i)	曾之俊先生(i)	–	931	57	988
Mr. Cheng Liquan Richard	程里全先生	–	850	–	850
		–	1,781	57	1,838
Non-executive directors:	非執行董事：				
Mr. Zheng Tony Tuo	鄭拓先生	–	–	–	–
Mr. Zhu Weihang	朱偉航先生	–	–	–	–
Mr. Chen Xue	陳學先生	–	–	–	–
		–	–	–	–
Total	總計	–	1,781	57	1,838

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

9. DIRECTORS' AND CHIEF EXECUTIVE'S  
REMUNERATION (Continued)

## 9. 董事及主要行政人員薪酬(續)

(b) Executive directors, non-executive directors  
and the chief executive (Continued)(b) 執行董事、非執行董事及主要行政  
人員(續)

2021	2021年	Directors' fee	Salaries and other allowances	Pension scheme contributions	Total	
		董事袍金	薪金及其他津貼	退休金計劃供款	總計	
		RMB'000	RMB'000	RMB'000	RMB'000	
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	
Executive directors:		執行董事：				
	Mr. Zeng Zhijun (i)	曾之俊先生(i)	-	850	52	902
	Mr. Cheng Liquan Richard	程里全先生	-	850	-	850
			-	1,700	52	1,752
Non-executive directors:		非執行董事：				
	Mr. Zheng Tony Tuo	鄭拓先生	-	-	-	-
	Mr. Zhu Weihang	朱偉航先生	-	-	-	-
	Mr. Chen Xue	陳學先生	-	-	-	-
			-	-	-	-
Total	總計	-	1,700	52	1,752	

(i) Mr. Zeng Zhijun is also the chief executive officer.

(i) 曾之俊先生亦為行政總裁。





## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 9. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION (Continued)

### (c) Five highest paid employees

The five highest paid employees during the year included two directors (2021: two), details of whose remuneration are set out in note 9 (b) above. Details of the remuneration for the year of the remaining three (2021: three) highest paid employees who are neither a director nor chief executive of the Company are as follows:

## 9. 董事及主要行政人員薪酬(續)

### (c) 五名最高薪酬僱員

年內五名最高薪酬僱員包括兩名(2021年: 兩名)董事, 其薪酬詳情載於上文附註9(b)。年內餘下三名(2021年: 三名)既非本公司董事亦非最高行政人員的最高薪酬僱員之薪酬詳情如下:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Salaries and other benefits	薪金及其他福利	2,301	2,256
Retirement benefit scheme contributions	退休福利計劃供款	114	105
Equity-settled share-based expense	股權結算以股份為基礎開支	1,566	1,516
		<b>3,981</b>	<b>3,877</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 9. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION (Continued)

## (c) Five highest paid employees (Continued)

The number of non-director and non-chief executive highest paid employees whose remuneration fell within the following bands is as follows:

		Number of employees 僱員人數	
		2022 2022年	2021 2021年
Nil to HK\$1,000,000	零至1,000,000港元	1	1
HK\$1,000,001 to HK\$1,500,000	1,000,001港元至 1,500,000港元	1	1
HK\$2,500,001 to HK\$3,000,000	2,500,001港元至 3,000,000港元	1	1
		3	3

## 9. 董事及主要行政人員薪酬(續)

## (c) 五名最高薪酬僱員(續)

非董事及非主要行政人員而其薪酬介乎以下範圍的最高薪酬僱員之人數如下：

## 10. INCOME TAX EXPENSE

PRC income tax has been provided at the rate of 25% (2021: 25%) on the estimated assessable profits arising in PRC during the year.

## 10. 所得稅開支

中國所得稅乃按年內在中國產生的估計應課稅溢利，以稅率25%（2021年：25%）作撥備。

		Note 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Current income tax	即期所得稅		34,946	29,519
Deferred income tax	遞延所得稅	32	(14,705)	8,133
Tax charge for the year			20,241	37,652

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
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## 10. INCOME TAX EXPENSE (Continued)

A reconciliation of the income tax charge applicable to profit before tax at PRC statutory income tax rate and the income tax charge at the Group's effective income tax rate for the year is as follows:

## 10. 所得稅開支(續)

按中國法定所得稅率計算適用於除稅前溢利的所得稅開支，與按本集團的實際所得稅率計算的所得稅開支之對賬如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Profit before tax	除稅前溢利	175,899	386,054
At PRC statutory tax rate of 25%	按中國法定稅率25%計算的稅項	43,975	96,514
Effect of tax rate differences	稅率差異的影響	(23,165)	(59,602)
Tax effect of share of profits of an associate	應佔一家聯營公司溢利的稅務影響	(2,159)	(4,590)
Tax effect of disposal on an investment in an associate	出售於聯營公司的投資之稅務影響	-	(165)
Tax effect of super deduction of research and development expenses	研發開支超額抵扣的稅務影響	(1,861)	(1,633)
Tax effect of non-deductible expenses	不可扣稅開支的稅務影響	459	1,078
Tax losses utilised from previous periods	動用以往期間的稅項虧損	(118)	(103)
Tax losses not recognised	未確認的稅項虧損	106	118
Withholding income tax on earnings	盈利的預扣所得稅	2,654	6,035
Temporary differences utilised from previous periods	從以往期間動用的暫時差額	350	-
Tax charge for the year at the effective rate	按實際稅率計算的年內稅項開支	20,241	37,652

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022

截至2022年12月31日止年度

## 10. INCOME TAX EXPENSE (Continued)

A reconciliation of the income tax charge applicable to profit before tax at PRC statutory income tax rate and the income tax charge at the Group's effective income tax rate for the year is as follows: (Continued)

- (i) *The Company and CBEE were incorporated in the Cayman Islands and the BVI, respectively. Both entities did not have tax assessable profits in the Cayman Islands, BVI or other jurisdiction during the reporting period.*

*Pursuant to the Enterprise Income Tax Law (the "EIT Law") effective on 1 January 2008, Beijing Boqi obtained a "High and New Technology Enterprise" (the "HNTE") certificate in 2008 which Beijing Boqi was entitled to a preferential tax rate of 15% from 2008 to 2010 and could be re-applied every three years; the current active HNTE certificate is effective until December 2023.*

*In October 2015, Hejin Boqi obtained the approval for being designated as the HNTE for the year ended 31 December 2015 which Hejin Boqi was entitled to a preferential tax rate of 15% from 2015 to 2017 and could be re-applied every three years; the current active HNTE certificate is effective until December 2024.*

*In November 2016, Jinggangshan Boqi obtained the approval for being designated as the HNTE for the year ended 31 December 2016 which entitled Jinggangshan Boqi to a preferential tax rate of 15% from 2016 to 2018 and could be re-applied every three years, and the current active HNTE certificate is effective date until November 2025.*

*In December 2017, Puzhou Boqi obtained the approval, by which the desulfurization program in Puzhou Boqi was fully exempted from income tax for three years starting from 2017, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

## 10. 所得稅開支(續)

按中國法定所得稅率計算適用於除稅前溢利的所得稅開支，與按本集團的實際所得稅率計算的所得稅開支之對賬如下：(續)

- (i) 本公司及CBEE分別於開曼群島及英屬處女群島註冊成立。於報告期，該等實體於開曼群島、英屬處女群島或其他司法權區並無應課稅溢利。

根據於2008年1月1日生效的企業所得稅法(「企業所得稅法」)，北京博奇於2008年獲得「高新技術企業」(「高新技術企業」)認證，北京博奇據此於2008年至2010年間享有15%的優惠稅率且可每隔三年重新申請；目前生效的高新技術企業認證有效期至2023年12月。

於2015年10月，河津博奇取得批文，於截至2015年12月31日止年度合資格為高新技術企業。河津博奇據此於2015年至2017年間享有15%的優惠稅率且可每隔三年重新申請；目前生效的高新技術企業認證有效期至2024年12月。

於2016年11月，井岡山博奇取得批文，於截至2016年12月31日止年度合資格為高新技術企業，井岡山博奇據此於2016年至2018年享有15%的優惠稅率且可每隔三年重新申請；目前生效的高新技術企業認證有效期至2025年11月。

於2017年12月，蒲洲博奇取得批文，蒲洲博奇的脫硫計劃自2017年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

31 December 2022  
截至2022年12月31日止年度

## 10. INCOME TAX EXPENSE (Continued)

A reconciliation of the income tax charge applicable to profit before tax at PRC statutory income tax rate and the income tax charge at the Group's effective income tax rate for the year is as follows: (Continued)

(i) (Continued)

*Changzhi Boqi obtained the approval, by which the water treatment program was fully exempted from income tax for three years starting from 2018, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

*In January 2019, Huainan Boqi obtained the approval, by which its desulfurization program was fully exempted from income tax for three years starting from 2019, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

*In May 2019, Laibin Boqi obtained the approval, by which the desulfurization program was fully exempted from income tax for three years starting from 2019, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

*In January 2020, Changjizhou Boqi obtained the approval, by which the desulfurization program was fully exempted from income tax for three years starting from 2020, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

*Qinghai Boqi obtained the approval, whereby the industrial solid waste utilisation and disposal project and hazardous waste utilisation and disposal project in Qinghai Boqi were entitled a full exemption of income tax for three years starting from 2018, and preferential rate of 12.5% for three years thereafter.*

*Handan Boqi obtained the approval, by which the environmental protection program was fully exempted from income tax for three years starting from 2022, and thereafter will be entitled to a three-year preferential rate of 12.5%.*

## 10. 所得稅開支(續)

按中國法定所得稅率計算適用於除稅前溢利的所得稅開支，與按本集團的實際所得稅率計算的所得稅開支之對賬如下：(續)

(i) (續)

*長治博奇獲准於長治博奇的污水處理業務計劃自2018年享有免交三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

*於2019年1月，淮南博奇獲批於淮南博奇的脫硫業務計劃自2019年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

*於2019年5月，來賓博奇獲批於來賓博奇的脫硫業務計劃自2019年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

*於2020年1月，昌吉州博奇獲批於昌吉州博奇的脫硫業務計劃自2020年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

*青海博奇獲批於青海博奇的工業固廢利用及處置項目及危廢利用及處置項目自2018年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

*邯鄲博奇獲批於環保計劃自2022年享有免繳三年所得稅的優惠，其後三年可享有12.5%的優惠稅率。*

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 11. DIVIDENDS

## 11. 股息

	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Proposed Final – HK3.00 cents (2021: 擬派末期股息 – 每股普通股 HK7.40 cents) per ordinary share	3.00港仙(2021年: 7.40港 仙)	63,821
	<b>26,542</b>	

The proposed final dividend for the year is subject to the approval of the Company's shareholders at the forthcoming annual general meeting.

本年度建議末期股息須待本公司股東在即將舉行的股東週年大會上批准。

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

## 12. 母公司普通股權益持有人應佔每股盈利

The calculations of basic and diluted earnings per share are based on:

每股基本及攤薄盈利乃根據以下資料計算：

	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Earnings</b>		
Profit attributable to ordinary equity holders of the parent, used in the basic/diluted earnings per share calculation	151,749	348,239

	Number of shares 股份數目	
	2022 2022年	2021 2021年
<b>Shares</b>		
Weighted average number of ordinary shares in issue during the year used in the basic earnings per share calculation	996,690,125	995,113,089
Effect of dilution – weighted average number of ordinary shares		
Award Share Scheme	4,170,911	5,584,290
Share Option Scheme	–	169,196
	<b>1,000,861,036</b>	1,000,866,575

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 13. PROPERTY, PLANT AND EQUIPMENT

## 13. 物業、廠房及設備

		Owned properties	Leasehold lands	Leased properties	Motor vehicles	Fixtures and equipment	Construction in progress	Total
		自置物業	租賃土地	租賃物業	汽車	裝置及設備	在建工程	總計
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元
<b>COST</b>	<b>成本</b>							
At 1 January 2021	於2021年1月1日	143,798	17,894	40,528	18,698	244,823	10,354	476,095
Acquisition of a subsidiary (note 38)	收購附屬公司(附註38)	80,911	1,833	-	1,263	10,451	19,500	113,958
Additions	添置	-	-	-	1,245	14,532	109,906	125,683
Other decrease	其他減少	-	-	-	-	(12,762)	-	(12,762)
Disposals	出售	-	-	-	(808)	(7,799)	-	(8,607)
At 31 December 2021	於2021年12月31日	224,709	19,727	40,528	20,398	249,245	139,760	694,367
Additions	添置	-	-	-	351	12,926	71,880	85,157
Transfer	轉撥	38,123	-	-	-	77,258	(115,381)	-
Other decrease	其他減少	(5,369)	-	-	-	-	-	(5,369)
Disposals	出售	-	-	-	(1,566)	(4,120)	-	(5,686)
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>257,463</b>	<b>19,727</b>	<b>40,528</b>	<b>19,183</b>	<b>335,309</b>	<b>96,259</b>	<b>768,469</b>
<b>ACCUMULATED DEPRECIATION AND IMPAIRMENT</b>	<b>累計折舊及減值</b>							
At 1 January 2021	於2021年1月1日	(13,386)	(669)	(2,757)	(13,721)	(44,076)	-	(74,609)
Charge for the year	年內支出	(8,202)	(51)	(4,006)	(2,105)	(21,256)	-	(35,620)
Impairment	減值	-	-	-	-	(479)	-	(479)
Elimination on disposals	出售時撇銷	189	-	-	768	5,651	-	6,608
At 31 December 2021	於2021年12月31日	(21,399)	(720)	(6,763)	(15,058)	(60,160)	-	(104,100)
Charge for the year	年內支出	(7,152)	(395)	(4,003)	(872)	(30,163)	-	(42,585)
Elimination on disposals	出售時撇銷	-	-	-	1,483	4,082	-	5,565
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>(28,551)</b>	<b>(1,115)</b>	<b>(10,766)</b>	<b>(14,447)</b>	<b>(86,241)</b>	<b>-</b>	<b>(141,120)</b>
<b>CARRYING VALUES</b>	<b>賬面值</b>							
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>228,912</b>	<b>18,612</b>	<b>29,762</b>	<b>4,736</b>	<b>249,068</b>	<b>96,259</b>	<b>627,349</b>
At 31 December 2021	於2021年12月31日	203,310	19,007	33,765	5,340	189,085	139,760	590,267

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 14. INVESTMENT PROPERTIES

## 14. 投資物業

		RMB'000 人民幣千元
<b>COST</b>	<b>成本</b>	
At 1 January 2021, 31 December 2021, and 31 December 2022	於2021年1月1日、2021年12月31日及 2022年12月31日	20,871
<b>ACCUMULATED DEPRECIATION</b>	<b>累計折舊</b>	
At 1 January 2021	於2021年1月1日	(9,792)
Provided for the year	年內撥備	(808)
At 31 December 2021	於2021年12月31日	(10,600)
Provided for the year	年內撥備	(644)
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>(11,244)</b>
<b>CARRYING VALUES</b>	<b>賬面值</b>	
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>9,627</b>
At 31 December 2021	於2021年12月31日	10,271

The investment properties are leased to third parties under operating leases, further summary details of which are included in note 15 to the financial statements.

At 31 December 2022, the Group's investment properties with a carrying value of RMB8,240,000 were pledged to secure general banking facilities granted to the Group (note 31).

The fair value of the Group's investment properties as at 31 December 2022 was RMB58,540,000 (2021: RMB49,399,000) which was determined by the Directors by using the direct comparison method based on observable market transaction prices of properties in similar locations. The fair value hierarchy is level 2. In estimating the fair value of the properties, the highest and best use of the properties is their current use.

投資物業乃根據經營租賃租予第三方，有關概述載於財務報表附註15。

於2022年12月31日，本集團賬面值為人民幣8,240,000元的投資物業已抵押，作為本集團獲授銀行信貸的擔保(附註31)。

於2022年12月31日，本集團投資物業的公允價值為人民幣58,540,000元(2021年：人民幣49,399,000元)，由董事通過使用直接比較法根據位於類似地點的物業的可觀察市場交易價格釐定。公允價值等級為第二級。於估計該等物業的公允價值時，該等物業的最高及最佳用途為其目前的用途。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 15. LEASES

## The Group as a lessee

The Group has lease contracts for various items of leasehold lands and leased properties used in its operations. Lump sum payments were made upfront to acquire the leasehold lands from the owners with lease periods of 50 years, and no ongoing payments will be made under the terms of these land leases. Leased properties generally have lease terms between 1 and 10 years. The lease contracts of buildings include extension and termination options. Generally, the Group is restricted from assigning and subleasing the leased assets outside the Group.

## (a) Right-of-use assets

Right-of-use assets are included in “Property, plant and equipment” in the consolidated statement of financial position. The carrying amounts of the Group’s right-of-use assets and the movements during the year are as follows:

## 15. 租賃

## 本集團作為承租人

本集團就在營運中使用的多項租賃土地及租賃物業訂有租賃合約。經已預先作出整筆付款以從業主取得租賃土地，租期為50年，而根據該等土地租賃的條款，將無需再行支付款項。租賃物業的租期一般為1至10年。樓宇的租賃合約包括延期及終止的選擇權。一般而言，本集團被限制將租賃資產在本集團外轉讓及分租。

## (a) 使用權資產

使用權資產計入綜合財務狀況表內的「物業、廠房及設備」。本集團的使用權資產賬面值及年內變動如下：

		Leasehold lands 租賃土地 RMB'000 人民幣千元	Leased properties 租賃物業 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
<b>As at 1 January 2021</b>	於2021年1月1日	17,225	37,771	54,996
Acquisition of a subsidiary	收購附屬公司	1,833	-	1,833
Depreciation charge	折舊開支	(51)	(4,006)	(4,057)
<b>As at 31 December 2021 and 1 January 2022</b>	於2021年12月31日 及2022年1月1日	19,007	33,765	52,772
Depreciation charge	折舊開支	(395)	(4,003)	(4,398)
<b>As at 31 December 2022</b>	於2022年12月31日	<b>18,612</b>	<b>29,762</b>	<b>48,374</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 15. LEASES (Continued)

## The Group as a lessee (Continued)

## (b) Lease liabilities

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

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Carrying amount at 1 January	於1月1日的賬面值	38,284	37,750
Accretion of interest recognised during the year	年內確認的利息增量	2,059	2,256
Payments	付款	(1,722)	(1,722)
Carrying amount at 31 December	於12月31日的賬面值	38,621	38,284
Current portion	即期部分	3,529	3,264
Non-current portion	非即期部分	35,092	35,020
		38,621	38,284

The maturity analysis of lease liabilities is disclosed in note 46 to the financial statements.

## 15. 租賃(續)

## 本集團作為承租人(續)

## (b) 租賃負債

租賃負債的賬面值及年內變動如下：

租賃負債的到期日分析在財務報表附註46披露。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 15. LEASES (Continued)

## The Group as a lessee (Continued)

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

	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Interest on lease liabilities (note 8) 租賃負債利息(附註8)	2,059	2,256
Depreciation charge of right-of-use assets 使用權資產的折舊開支	4,398	4,057
Expense relating to short-term leases (included in cost of sales and services) 有關短期租賃的開支(計入銷售及服務成本)	2,836	2,159
Total amount recognised in profit or loss 在損益中確認的總額	9,293	8,472

(d) **The total cash outflow for leases is disclosed in note 39(c) to the financial statements.**

## 15. 租賃(續)

## 本集團作為承租人(續)

(c) 在損益中就租賃確認的金額如下：

(d) 租賃的現金流出總額在財務報表附註39(c)中披露。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 15. LEASES (Continued)

## The Group as a lessor

The Group leases its investment properties (note 14) of commercial properties under operating lease arrangements. The terms of the leases generally require the tenants to pay security deposits and provide for periodic rent adjustments according to the then prevailing market conditions. Rental income recognised by the Group during the year was RMB767,000 (2021: RMB582,000).

At 31 December 2022, the undiscounted minimum lease payments receivable by the Group in future periods under non-cancellable operating leases with its tenants are as follows:

## 15. 租賃(續)

## 本集團作為出租人

本集團根據經營租賃安排租出其投資物業(附註14)。租賃條款一般要求租戶支付保證金，並規定須按照當時市場狀況定期作租金調整。本集團年內確認的租金收入為人民幣767,000元(2021年：人民幣582,000元)。

於2022年12月31日，本集團於未來期間根據不可撤銷經營租賃向其租戶應收的未貼現最低租金付款如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Within one year	一年內	-	-

## 16. GOODWILL

## 16. 商譽

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Carrying amount at 1 January	於1月1日的賬面值	147,957	-
Acquisition of a subsidiary (note 38)	收購附屬公司(附註38)	-	147,957
Impairment during the year	年內減值	(141,469)	-
Carrying amount at 31 December	於12月31日的賬面值	6,488	147,957
Cost	成本	147,957	147,957
Accumulated impairment	累計減值	(141,469)	-
Carrying amount at 31 December	於12月31日的賬面值	6,488	147,957

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 16. GOODWILL (Continued)

In 2021, Beijing Boqi (the “**acquirer**”), a subsidiary of the Group, acquired a 95% equity interest in Qinghai Boqi (the “**acquiree**”). The business acquisition gave rise to goodwill of RMB147,957,000.

##### Impairment testing of goodwill

Goodwill acquired through business combinations is allocated to the CGU of Qinghai Boqi for impairment testing.

On 12 July 2022, Opinions on Strengthening Environmental Supervision on Strict Prohibition of Cross-Province Hazardous Waste Transfer for Disposal (《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》) was issued by the Qinghai Province People’s Government, which strictly prohibits any cross-province transfer of non-recyclable and hazardous waste for incineration and landfill disposal. Considered that the specific assumptions adopted for the valuation of the entire interest in Qinghai Boqi as at 30 June 2021 had changed significantly, the Directors and the original shareholder of Qinghai Boqi agreed to renegotiate and enter into the supplemental agreements to revise the total consideration for the entire equity interests of Qinghai Boqi from RMB230,000,000 to RMB50,500,000. Due to the expected decline in future revenue of Qinghai Boqi, a provision for impairment of RMB141,469,000 was made this year.

The recoverable amount of Qinghai Boqi 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 13.00% (2021: 12.76%).

#### 16. 商譽(續)

於2021年，本集團的附屬公司北京博奇(「收購方」)收購青海博奇(「被收購方」)的95%股權。業務合併產生商譽人民幣147,957,000元。

##### 商譽減值測試

透過業務合併取得的商譽已分配至青海博奇的現金產生單位以進行減值測試。

於2022年7月12日，青海省人民政府印發《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》，嚴禁跨省轉運不可回收危險廢物焚化及填埋處置。考慮到就青海博奇全部權益於2021年6月30日的估值所採用的具體假設已發生重大變動，董事與青海博奇的原先股東同意重新磋商並訂立補充協議，將青海博奇全部權益的總代價由人民幣230,000,000元修訂至人民幣50,500,000元。由於預期青海博奇的未來收益減少，已於年內作出人民幣141,469,000元的減值撥備。

青海博奇的可收回金額乃使用基於高級管理層批准的五年期財務預算得出的現金流量預測進行使用價值計算而釐定。應用於現金流量預測的稅前貼現率為13.00% (2021年：12.76%)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 16. GOODWILL (Continued)

## Impairment testing of goodwill (Continued)

Assumptions were used in the value in use of calculation as at 31 December 2022 and 31 December 2021. The following describes the key assumptions, based on which management prepared cash flow projections to undertake impairment testing of goodwill:

- a) Budgeted gross margin – The basis used to determine the value assigned to the budgeted gross margin is the average gross margin achieved in prior historical years, adjusted for the expected efficiency improvements.
- b) Discount rate – The discount rate used is before tax and reflects specific risks relating to the relevant CGU.
- c) Disposal volume – The basis used to determine the disposal volume is the disposal volume in prior historical years, adjusted by expected growth rate taking into account the industry growth rate, past experience and the medium or long-term growth target of the CGU.

The values assigned to the key assumptions on market development of hazardous and solid waste treatment/disposal business, discount rates and disposal volume are consistent with external information sources.

## 16. 商譽(續)

## 商譽減值測試(續)

於2022年12月31日及2021年12月31日進行的使用價值計算中運用某些假設。管理層所依據用以編製現金流量預測以進行商譽減值測試的主要假設說明如下：

- a) 預算毛利率－用以釐定分配至預算毛利率的價值之基準為過往年度所達到的平均毛利率(就預期效率改善作調整)。
- b) 貼現率－所使用的是稅前貼現率，並反映與現金產生單位有關的相關組別的特定風險。
- c) 出售量－用作釐定出售量的基準為過往年度的出售量，並在計及行業增長率、過去經驗及現金產生單位的中期或長期增長目標後經預期增長率作調整。

分配至危固廢處理處置業務的市場發展、貼現率及出售量的主要假設之價值與外間資料來源相符。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 17. OTHER INTANGIBLE ASSETS

## 17. 其他無形資產

		Software 軟件 RMB'000 人民幣千元	Patents and trademarks 專利及商標 RMB'000 人民幣千元	Customer relationship 客戶關係 RMB'000 人民幣千元	Concession arrangements 特許經營安排 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
<b>COST</b>	<b>成本</b>					
At 1 January 2021	於2021年1月1日	17,005	28,774	-	960,094	1,005,873
Acquisition of a subsidiary (note 38)	收購附屬公司 (附註38)	-	-	35,400	-	35,400
Additions	添置	1,179	-	-	28,065	29,244
Transferred to the non-current assets	轉撥至非流動資產	-	-	-	(74,554)	(74,554)
Disposals	出售	-	-	-	(4,253)	(4,253)
At 31 December 2021	於2021年12月31日	18,184	28,774	35,400	909,352	991,710
Additions	添置	1,321	-	-	24,458	25,779
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>19,505</b>	<b>28,774</b>	<b>35,400</b>	<b>933,810</b>	<b>1,017,489</b>
<b>ACCUMULATED AMORTISATION</b>	<b>累計攤銷</b>					
At 1 January 2021	於2021年1月1日	(13,760)	(28,774)	-	(265,683)	(308,217)
Charge for the year	年內支出	(1,341)	-	(590)	(55,238)	(57,169)
Transferred to the non-current assets	轉撥至非流動資產	-	-	-	21,430	21,430
Disposals	出售	-	-	-	2,960	2,960
At 31 December 2021	於2021年12月31日	(15,101)	(28,774)	(590)	(296,531)	(340,996)
Charge for the year	年內支出	(1,297)	-	(4,425)	(66,362)	(72,084)
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>(16,398)</b>	<b>(28,774)</b>	<b>(5,015)</b>	<b>(362,893)</b>	<b>(413,080)</b>
<b>ACCUMULATED IMPAIRMENT</b>	<b>累計減值</b>					
At 1 January 2021 and 31 December 2021	於2021年1月1日及 2021年12月31日	-	-	-	-	-
Impairment during the year	年內減值	-	-	(27,612)	-	(27,612)
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>-</b>	<b>-</b>	<b>(27,612)</b>	<b>-</b>	<b>(27,612)</b>
<b>CARRYING VALUES</b>	<b>賬面值</b>					
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>3,107</b>	<b>-</b>	<b>2,773</b>	<b>570,917</b>	<b>576,797</b>
At 31 December 2021	於2021年12月31日	3,083	-	34,810	612,821	650,714

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 17. OTHER INTANGIBLE ASSETS (Continued)

The Group has entered into a number of service concession arrangements with certain power plants in PRC on a BOT basis in respect of its desulfurization and denitrification construction and maintenance services. Pursuant to the service concession arrangement contracts, the Group (i) is responsible for the construction of the desulfurization and denitrification facilities; (ii) has the contractual obligations to maintain the infrastructures at a specified level of serviceability; and (iii) is entitled to operate the facilities upon completion for a specified concession period from 15 to 20 years by receiving the monthly fees, which are determined by on-grid tariff subsidies on a per kilowatt hour basis for power generated by the power plant and settled with the customers on a monthly basis. The Group will not hold any residual interest in the facilities upon expiration of the concession period.

As such, these contracts are accounted for as service concession arrangements and intangible assets were recognised upon the completion of construction at the amounts equal to stand-alone selling price for the provision of construction service.

On 12 July 2022, Opinions on Strengthening Environmental Supervision on Strict Prohibition of Cross-Province Hazardous Waste Transfer for Disposal (《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》) was issued by the Qinghai Province People's Government, which strictly prohibits any cross-province transfer of non-recyclable and hazardous waste for incineration and landfill disposal. Therefore, the customer relationship is indicated to be impaired. Due to the expected decline in future revenue of customer relationship, a provision for impairment of RMB27,612,000 was made this year.

## 17. 其他無形資產(續)

本集團按BOT基準就其脫硫及脫硝工程及維護服務與若干電廠訂立多項服務特許經營安排。根據服務特許經營安排合約，本集團(i)負責建造脫硫及脫硝設施；(ii)承擔按特定可提供服務水平維護基礎設施的合約責任；及(iii)有權於完成後於15至20年內的規定特許經營期透過每月收取費用經營設施，而每月收取的費用乃就發電廠所發電力按每千瓦時上網電價津貼釐定，並每月與客戶結算。本集團於特許經營期屆滿後不再持有設施任何餘下利益。

因此，該等合約於完成建造後入賬列作服務特許經營安排及無形資產，並按相等於提供建造服務的獨立出售價格確認。

於2022年7月12日，青海省人民政府印發《關於嚴禁危險廢物跨省轉入處置進一步強化環境監管的意見》，嚴禁跨省轉運不可回收危險廢物焚化及填埋處置。因此，客戶關係有跡象會出現減值。由於預期就客戶關係產生的未來收益減少，已於年內作出人民幣27,612,000元的減值撥備。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 18. RECEIVABLES UNDER SERVICE CONCESSION ARRANGEMENT

In June 2017, the Group entered into a service concession arrangement with a state-owned power plant. Through the arrangement, the Group is involved as an operator (i) paying a specific amount for purchasing the relevant infrastructure for operation under the service concession arrangement; (ii) using the existing infrastructure and upgrading the acquired facilities for the provision of services under the service concession arrangement; and (iii) operating and maintaining the infrastructure for the period of 15 years (the “**Service Concession Period**”), and the Group will be paid for its services over the Service Concession Period at prices stipulated through a pricing mechanism. The Group is entitled to use all of the related infrastructure, however, the power plant, as the grantor, will control and regulate the scope of service that the Group must provide with the infrastructure. The construction and upgrade of this service concession arrangement have been fully completed in December 2018.

The service fee is charged by reference to on-grid tariff subsidies determined on a per kilowatt hour basis as set out in the service concession agreement. However, the Group is entitled to a minimum guaranteed service charge, which is calculated based on the minimum guaranteed on-grid tariff per year and the price agreed in the service concession agreement. Accordingly, the receivables under service concession arrangement was recognised based on the consideration paid by the Group upon the completion of the construction or upgrade of the infrastructure.

#### 18. 服務特許經營安排項下的應收款項

於2017年6月，本集團與一間國有電廠訂立服務特許經營安排。透過該安排，本集團以運營商身份參與(i)就購買服務特許經營安排項下供投運的相關基礎設施支付特定金額；(ii)使用本集團現有基礎設施以及改造所收購設施，以提供服務特許經營安排項下的服務；以及(iii)營運及維持相關基礎設施達15年（「**服務特許經營期**」），而本集團將於服務特許經營期內就其所提供的服務按通過定價機制所訂明的價格獲取報酬。本集團有權使用所有相關基礎設施，惟電廠將以授予人身份控制並規定本集團須以有關基礎設施提供的服務範疇。該服務特許經營安排的建造及改造已於2018年12月全面完成。

服務費乃經參考按服務特許經營協議所訂明的每千瓦時基準計算的上網電價津貼收取。然而，本集團有權享有最低擔保服務費用，而該費用乃根據每年最低擔保上網電價及服務特許經營協議所規定的價格計算。因此，服務特許經營安排的應收款項按完成基礎設施建造或改造後本集團所付代價確認。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 18. RECEIVABLES UNDER SERVICE CONCESSION ARRANGEMENT (Continued)

In July 2022, the Group entered into a service concession arrangement with Tianjin Iron Plant. Through the arrangement, the Group is involved as an operator (i) paying a specific amount for construction and purchasing the relevant infrastructure for operation under the service concession arrangement; (ii) using the existing infrastructure and upgrading the acquired facilities for the provision of services under the service concession arrangement; and (iii) operating and maintaining the infrastructure for the period of 10 years (the “**Service Concession Period**”), and the Group will be paid for its services over the Service Concession Period at prices stipulated through a pricing mechanism. The Group is entitled to use all of the related infrastructure, however, Tianjin Iron Plant, as the grantor, will control and regulate the scope of service that the Group must provide with the infrastructure. The construction of this service concession arrangement has been fully completed in 2022.

The service fee is charged by reference to an agreed price determined on a per kilowatt hour basis as set out in the service concession agreement. However, the Group is entitled to a minimum guaranteed service charge, which is calculated based on the minimum guaranteed power generation per year and the price agreed in the service concession agreement. Accordingly, the receivables under service concession arrangement were recognised based on the consideration paid by the Group upon the completion of the construction or upgrade of the infrastructure.

### 18. 服務特許經營安排項下的應收款項(續)

於2022年7月，本集團與天津鐵廠訂立服務特許權安排，據此本集團作為運營者(i)根據服務特許權安排就建設和購買用作運營的相關基礎設施而支付特定金額；(ii)使用現有基礎設施和升級所購買的設施以提供服務特許權安排項下的服務；及(iii)於10年期間(「**服務特許期**」)運營和維護基礎設施，而本集團將透過定價機制按規定價格就服務特許期所提供的服務獲支付費用。本集團有權使用所有相關基礎設施，但天津鐵廠(作為委託人)將控制和調節本集團利用基礎設施所提供的服務範圍。服務特許權安排的建設工程已於2022年全部完成。

服務費乃根據服務特許權協議所載以每千瓦時為基準釐定的協議價格而收取。然而，本集團有權收取最低保證服務費用，此乃根據每年最低保證發電量及服務特許權協議內協定的價格計算。因此，服務特許權安排項下的應收款項於建設完成或基礎設施升級時根據本集團所支付的代價確認入賬。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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### 18. RECEIVABLES UNDER SERVICE CONCESSION ARRANGEMENT (Continued)

The receivables under service concession arrangement arose from the minimum service charge guaranteed by the power plant was as follows:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Current portion	即期部分	49,762	24,865
Non-current portion	非即期部分	492,005	316,691
		<b>541,767</b>	<b>341,556</b>
Expected collection schedule is analysed as follows:	預計收款時間分析如下：		
Within one year	一年內	49,762	24,865
More than one year, but not more than two years	一年以上但不超過兩年	43,960	24,079
More than two years but not more than five years	兩年以上但不超過五年	149,153	81,839
More than five years	五年以上	298,892	210,773
		<b>541,767</b>	<b>341,556</b>

The Group accounts for the receivables under service concession arrangement based on the present value of the estimated annual minimum service charge in the Service Concession Period by applying an implied interest rate of 6.37% and 6.15% which are calculated based on the significant financing component implied in the contract.

### 18. 服務特許經營安排項下的應收款項(續)

由電廠保證的最低服務費用產生之服務特許經營安排項下的應收款項如下：

本集團將服務特許經營安排項下應收款項按服務特許經營期的估計年度最低服務費的現值應用基於合約中隱含的重大融資部分計算的隱含利率6.37%及6.15%入賬。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 18. RECEIVABLES UNDER SERVICE CONCESSION ARRANGEMENT (Continued)

The grantor under service concession arrangement is a state-owned power plant in which the default risk is generally perceived to be low. The Directors consider that there was no significant change in credit risk during the year ended 31 December 2022, and thus measure the loss allowance for receivables under service concession arrangement at an amount equal to 12-month ECL, which is RMB5,102,000 (2021: RMB6,338,000). While the Company considers the credit risk is low, the collection of receivables under service concession arrangement is closely monitored by the Company in order to minimise any credit risk associated with the receivables.

Movement in 12-month ECL that has been recognised for receivables under service concession arrangement for the year ended 31 December 2022 and 2021 is as follows:

### 18. 服務特許經營安排項下的應收款項(續)

服務特許經營安排項下的授予人為違約風險被普遍認為較低的國有電廠。董事認為，截至2022年12月31日止年度的信貸風險並無重大變動，因此將服務特許經營安排項下的應收款項虧損撥備計成等於12個月預期信貸虧損的金額，即人民幣5,102,000元(2021年：人民幣6,338,000元)。儘管本公司認為信貸風險較低，本公司密切監察服務特許經營安排項下應收款項的收款情況以減低任何與應收款項有關的信貸風險。

於截至2022年及2021年12月31日止年度，就服務特許經營安排項下的應收款項確認之12個月預期信貸虧損如下：

		RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	3,959
Impairment of receivables under service concession arrangement	服務特許經營安排項下的應收款項減值	2,379
At 31 December 2021 and at 1 January 2022	於2021年12月31日及2022年1月1日	6,338
Reverse of Impairment of receivables under service concession arrangement	服務特許經營安排項下的應收款項減值撥回	(1,236)
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>5,102</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 19. INVESTMENTS IN AN ASSOCIATE

## 19. 於聯營公司的投資

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Cost of investment in an associate	於聯營公司投資的成本	33,000	33,000
Share of profit of an associate, net of dividend received	分佔聯營公司溢利 (扣除已收股息)	30,895	47,101
		<b>63,895</b>	80,101

Particulars of the Group's material associates are as follows:

本集團主要聯營公司的詳情如下：

Name 名稱	Particulars of issued shares held 持有已發行股份詳情	Place of incorporation/ registration and business 註冊成立/ 註冊及營業地點	Percentage of ownership interest attributable to the Group 本集團應佔 所有權權益百分比		Principal activity 主要業務
			2022 2022年	2021 2021年	
Guo Neng Long Yuan Boqi Environmental Technology (Han Chuan) Co., Ltd. ("Han Chuan Long Yuan", formerly known as Han Chuan Long Yuan Boqi Environmental Technology Co., Ltd.) 國能龍源博奇環保科技(漢川)有限公司(「漢川龍源」, 前稱漢川龍源博奇環保科技有限公司)	Registered capital of RMB1 each 註冊資本 每股人民幣1元	PRC/ Mainland China 中國/中國大陸	30	30	Operation of environmental protection facilities 經營環保設施

The shareholdings of the associate is held through a wholly-owned subsidiary of the Company.

該聯營公司的股權乃透過本公司一間全資附屬公司持有。

The associate is accounted for using the equity method in the consolidated financial statements.

聯營公司於綜合財務報表中使用權益法入賬。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 19. INVESTMENTS IN AN ASSOCIATE (Continued)

The summarised financial information in respect of a material associate, Han Chuan Long Yuan, is set out below:

## 19. 於聯營公司的投資(續)

主要聯營公司漢川龍源的財務資料概述如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Total assets	總資產	306,516	311,735
Total liabilities	總負債	(93,533)	(44,732)
Net assets	資產淨值	212,983	267,003
Reconciliation to the Group's interest in the associate:	與本集團於聯營公司的權益之對賬：		
Proportion of the Group's ownership	本集團的所有權百分比	30%	30%
Carrying amount of the investment	投資賬面值	63,895	80,101
Revenue	收益	233,522	252,753
Profit and total comprehensive income for the year	年內溢利及全面收益總額	47,983	102,004
Dividend received from the associate during the year	年內自聯營公司收取的股息	30,601	17,573

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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**20. EQUITY INVESTMENT DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME**      **20. 指定為按公允價值計入其他全面收益的股權投資**

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Unlisted equity investment, at fair value	非上市股權投資，按公允價值		
Beijing Ruichuchuangyuan Technology Center (Limited Partnership)	Beijing Ruichuchuangyuan Technology Center (Limited Partnership)	5,166	-

The above equity investment was irrevocably designated at fair value through other comprehensive income as the Group considers this investment to be strategic in nature.

由於本集團認為上述投資屬策略性質，因此該投資不可撤回地指定為按公允價值計入其他全面收入。

**21. INVENTORIES**      **21. 存貨**

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Equipment, supplies and spare parts	設備、材料及備件	34,086	30,696
Allowance for inventories	存貨撥備	(957)	(1,147)
		<b>33,129</b>	<b>29,549</b>

**22. TRADE RECEIVABLES**      **22. 貿易應收款項**

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Trade receivables	貿易應收款項	918,149	921,266
Less: Allowance for credit losses	減：信貸虧損撥備	(46,028)	(35,846)
		<b>872,121</b>	<b>885,420</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 22. TRADE RECEIVABLES (Continued)

The Group generally grants credit periods of 30 to 90 days which are agreed with each of its trade customers. The extension of credit periods to the customers may be granted on a discretionary basis by considering customer type, the current creditworthiness and the customer's financial condition and payment history with the Group.

An ageing analysis of the trade receivables as at the end of the reporting period, based on the invoice date and net of loss allowance, is as follows:

## 22. 貿易應收款項(續)

本集團一般授出的客戶信貸期介乎30至90日，乃與其各貿易客戶協定。本集團考慮客戶之類別、其目前信譽及財政狀況，以及其與本集團之過往付款紀錄而酌情向客戶授予延長信貸期。

於報告期末根據發票日期及經扣除虧損撥備的貿易應收款項之賬齡分析如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
1 to 90 days	1至90日	420,120	497,717
91 to 180 days	91至180日	110,363	107,758
181 to 365 days	181至365日	74,948	140,689
1 to 2 years	1至2年	203,426	96,172
2 to 3 years	2至3年	45,089	23,470
Over 3 years	超過3年	18,175	19,614
		<b>872,121</b>	<b>885,420</b>

As at 31 December 2022, included in the Group's trade receivables balance are debtors with aggregate carrying amount of RMB444,830,000 (2021: RMB368,957,000) which are past due for more than 90 days and are not considered as in default because these customers are sizeable power plant, state-owned or listed companies with strong financial position. The Directors consider the trade receivables to be in default when the debtors do not repay any trade receivables through the Group has pursued for several times, which indicates the Group may not collect these trade receivables.

於2022年12月31日，包括於本集團貿易應收款項結餘內為總賬面值人民幣444,830,000元(2021年：人民幣368,957,000元)的債務人欠款，已逾期超過90日而不被認為已違約，原因是這些客戶為具規模的電廠、具強勁財務狀況的國有或上市公司。董事認為，在本集團已多次催促還款而債務人仍未償還任何貿易應收款項，顯示本集團未必可收回該等貿易應收款項的情況下，該等貿易應收款項方被視為違約。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 22. TRADE RECEIVABLES (Continued)

As at 31 December 2022, included in the Group's trade receivables balance are debtors with aggregate carrying amount of RMB49,909,000 (2021: RMB50,903,000) which are past due for more than 90 days and are considered as in default. The Directors measure the expected credit losses for these balances separately and the loss allowance of RMB23,093,000 (2021: RMB20,519,000) was recognised.

The Group does not hold any collateral over these balances.

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

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
At beginning of year	年初	35,846	35,639
Allowance for trade receivables	貿易應收款項撥備	11,188	-
Acquisition of a subsidiary	收購附屬公司	-	7,273
Reversal of impairment losses	減值虧損撥回	-	(5,382)
Write-off as uncollectible	作為不可收回而撇銷	(1,006)	(1,684)
At end of year	年末	46,028	35,846

The increase in allowance was mainly due to the increase in long-aged of trade receivables during the year (2021: increase of allowance was mainly due to the acquisition of a subsidiary, resulting in the increase allowance for trade receivables with an amount of RMB7,273,000 during the year).

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns. 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.

## 22. 貿易應收款項(續)

於2022年12月31日，包括於本集團貿易應收款項結餘內為總賬面值人民幣49,909,000元(2021年：人民幣50,903,000元)的債務人欠款，已逾期超過90日而被認為已違約。董事就該等結餘獨立計量預期信貸虧損，並已確認虧損撥備人民幣23,093,000元(2021年：人民幣20,519,000元)。

本集團並無就該等結餘持有任何抵押品。

貿易應收款項減值虧損撥備之變動如下：

撥備增加主要由於年內貿易應收款項的長期賬齡增加(2021年：撥備增加主要由於年內收購一家附屬公司，導致貿易應收款項的撥備增加人民幣7,273,000元)。

於各報告日期採用撥備矩陣進行減值分析，以計量預期信貸虧損。撥備率乃基於具有類似虧損模式的多個客戶分部組別的逾期日數釐定。該計算反映概率加權結果、貨幣時值及於報告日期可得的有關過往事件、當前狀況及未來經濟狀況預測的合理及可靠資料。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 22. TRADE RECEIVABLES (Continued)

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

## 22. 貿易應收款項(續)

下表載列使用撥備矩陣計算本集團貿易應收款項的信貨風險的資料：

		2022 2022年		2021 2021年	
		Gross carrying amount	Expected credit losses	Gross carrying amount	Expected credit losses
		總賬面值	預期信貸虧損	總賬面值	預期信貸虧損
		RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元
Individual evaluation of expected credit losses	個別評估預期信貸虧損	49,909	23,093	50,903	20,519
Assessment of expected credit losses by credit risk portfolio	以信貸風險組合評估預期信貸虧損	868,240	22,935	870,363	15,327
		918,149	46,028	921,266	35,846

As at 31 December 2022	於2022年12月31日	Ageing 賬齡				Total 總計
		Less than 1 year 少於1年	1 to 2 years 1至2年	2 to 3 years 2至3年	Over 3 years 3年以上	
Expected credit loss rate	預期信貸虧損率	0.78%	4.43%	13.63%	35.06%	
Gross carrying amount (RMB'000)	總賬面值(人民幣千元)	610,172	199,462	52,202	6,404	868,240
Expected credit losses (RMB'000)	預期信貸虧損(人民幣千元)	4,742	8,835	7,113	2,245	22,935

As at 31 December 2021	於2021年12月31日	Ageing 賬齡				Total 總計
		Less than 1 year 少於1年	1 to 2 years 1至2年	2 to 3 years 2至3年	Over 3 years 3年以上	
Expected credit loss rate	預期信貸虧損率	0.74%	4.75%	14.67%	51.01%	
Gross carrying amount (RMB'000)	總賬面值(人民幣千元)	751,695	100,964	11,080	6,624	870,363
Expected credit losses (RMB'000)	預期信貸虧損(人民幣千元)	5,531	4,792	1,625	3,379	15,327

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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### 23. PREPAYMENTS, DEPOSITS AND OTHER RECEIVABLES 23. 預付款項、按金及其他應收款項

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Prepaid value added tax	預付增值稅	69,018	80,792
Prepayments	預付款項	33,937	31,339
Other receivables	其他應收款項	120,772	42,993
Prepaid income tax	預付所得稅	40	4,365
		<b>223,767</b>	159,489
Less: impairment losses on other receivables	減：其他應收款項減值虧損	<b>(5,821)</b>	(2,063)
		<b>217,946</b>	157,426

Other receivables mainly represent deposits with suppliers. An impairment analysis is performed at each reporting date by considering expected credit losses, which are estimated by applying a loss rate approach with reference to the historical loss record of the Group. The loss rate is adjusted to reflect the current conditions and forecasts of future economic conditions, as appropriate. The loss rate applied as at 31 December 2022 was 4.80% (2021: 4.79%).

其他應收款項主要指存放在供應商的按金。於每個報告日期均透過考慮預期信貸虧損以進行減值分析，而預期信貸虧損乃應用參考本集團過往虧損記錄的虧損率方法作估計。虧損率乃經調整，以反映現時狀況及對未來經濟狀況的預測(如適用)。於2022年12月31日應用的虧損率為4.80%(2021年：4.79%)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 24. CONTRACT ASSETS

The Group has rights to considerations from customers for the provision of construction, operation and maintenance services. Contract assets arise when the Group has rights to considerations for completion of such services and not yet billed under the relevant contracts, and their rights are conditioned on factors other than passage of time. Any amount previously recognised as contract assets are transferred to trade receivables when the rights become unconditional. Remaining rights and performance obligations in a particular contract are accounted for and presented on a net basis, as either a contract asset or a contract liability.

The contract assets primarily relate to the Group's rights to considerations for work completed and not billed because the rights are conditioned on the Group's future performance. Usually, the contract assets are transferred to trade receivables when the rights become unconditional. The Group typically reclassifies contract assets to trade receivables on the date of issue of invoice or billing with the customers when such right of collections becomes unconditional other than the passage of time.

## 24. 合約資產

本集團有權就提供工程、營運及維護服務向客戶收取代價。合約資產於本集團有權就完成有關服務且尚未根據相關合約收費收取代價時產生，而其權利以隨著時間流逝以外的因素為條件。先前確認為合約資產的任何款項於有關權利成為無條件時轉移為貿易應收款項。個別合約內的餘下權利及履約責任按淨額基準入賬並呈列為合約資產或合約負債。

合約資產主要關於本集團就已完成且未收費的工程收取代價的權利，此乃由於該等權利以本集團未來的履行作為條件。一般而言，合約資產於該等權利變為無條件時轉移為貿易應收款項。本集團一貫於發出發票日期或與客戶計費日期，即當該等收回款項權利非隨著時間流逝變為無條件時，將合約資產重新分類至貿易應收款項。

		31 December 2022 2022年 12月31日 RMB'000 人民幣千元	31 December 2021 2021年 12月31日 RMB'000 人民幣千元	1 January 2021 2021年 1月1日 RMB'000 人民幣千元
Contract assets arising from construction services	從建造服務產生的合約資產			
Current portion	即期	423,950	242,089	127,446
Non-current portion	非即期	16,917	203,525	21,468
		440,867	445,614	148,914
Impairment	減值	(3,427)	(3,279)	(1,364)
		437,440	442,335	147,550

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

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#### 24. CONTRACT ASSETS (Continued)

The decrease in 2022 was the result of the increase in completion of rendering the installation services at the end of the year (2021: The increase in 2021 was the result of the increase in ongoing installation services at the end of the year.).

During the year ended 31 December 2022, RMB148,000 (2021: RMB1,915,000) was recognised as an allowance for expected credit losses on contract assets. The Group's trading terms and credit policy with customers are disclosed in note 22 to the financial statements.

Movement in lifetime ECL that has been recognised for contract assets in accordance with the simplified approach set out in IFRS 9 is as follows:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
At beginning of year	年初	3,279	1,364
Impairment of contract assets, net	合約資產減值淨額	148	1,915
At end of year	年末	3,427	3,279

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates for the measurement of the expected credit losses of the contract assets are based on those of the trade receivables as the contract assets and the trade receivables are from the same customer bases. The provision rates of contract assets are based on days past due of trade receivables for groupings of various customer segments with similar loss patterns. 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.

#### 24. 合約資產(續)

於2022年合約資產減少，乃由於年末時完成的安裝服務增加(2021年：於2021年合約資產增加，乃由於年末時持續進行的安裝服務增加)。

於截至2022年12月31日止年度，人民幣148,000元(2021年：人民幣1,915,000元)確認為合約資產的預期信貸虧損撥備。本集團與客戶的貿易條款及信貸政策在財務報表附註22披露。

已根據國際財務報告準則第9號所載的簡易方法就合約資產確認的全期預期信貸虧損變動如下：

於各報告日期採用撥備矩陣進行減值分析，以計量預期信貸虧損。計算合約資產預期信貸虧損的撥備率乃基於列作合約資產的貿易應收款項的撥備率，而貿易應收款項乃來自相同客戶群。合約資產的撥備率乃基於具有類似虧損模式的多個客戶分部組別的貿易應收款項逾期日數釐定。該計算反映概率加權結果、貨幣時值及於報告日期可得的有關過往事件、當前狀況及未來經濟狀況預測的合理及可靠資料。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 24. CONTRACT ASSETS (Continued)

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

		2022 2022年		2021 2021年	
		Current portion 即期部分	Non- current portion 非即期部分	Current portion 即期部分	Non- current portion 非即期部分
Expected credit loss rate	預期信貸虧損率	0.78%	0.78%	0.74%	0.74%
Gross carrying amount (RMB'000)	總賬面值 (人民幣千元)	423,950	16,917	242,089	203,525
Expected credit losses (RMB'000)	預期信貸虧損 (人民幣千元)	3,296	131	1,781	1,498

## 24. 合約資產(續)

下表載列使用撥備矩陣計算本集團合約資產信貸風險的資料：

## 25. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Listed equity investments, at fair value	上市股權投資，按公允價值		
China Risun Group Ltd.	中國旭陽集團有限公司	21,607	75,871
Global New Material International Holdings Ltd.	環球新材國際控股有限公司	—	102,900
		21,607	178,771
Other unlisted investment, at fair value	其他非上市投資，按公允價值		
W-startech (Beijing) Environmental Technology Co., Ltd.	威水星空(北京)環境技術有限公司	3,054	—
		24,661	178,771

## 25. 按公允價值計入損益的金融資產

The above listed equity investments were classified as financial assets at fair value through profit or loss as they were held for trading. Other unlisted equity investment represented investment in W-startech (Beijing) Environmental Technology Co., Ltd. (威水星空(北京)環境技術有限公司).

由於上述上市股權投資乃持有買賣，因此分類為按公允價值計入損益的金融資產。其他非上市股權投資指於威水星空(北京)環境技術有限公司的投資。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 26. DEBT INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

The amounts represent notes receivable. The Directors recognised the notes receivable, with fixed rates and maturity date, as debt instrument at fair value through other comprehensive income, as they held these notes for the purpose of cash collection and discounting. The Directors assessed the expected credit loss risk of notes receivable as low, mainly because the notes were secured by the drawer's bank deposit and the default risk was low.

## 26. 按公允價值計入其他全面收益的債務工具

有關金額指應收票據。董事將有固定利率及到期日的應收票據確認為按公允價值計入其他全面收益的債務投資，原因為持有該等票據的目的為收取現金及貼現。董事確定應收票據的預期信貸虧損風險較低，主要因為票據由出票人的銀行存款擔保，違約風險較低。

## 27. CASH AND CASH EQUIVALENTS AND PLEDGED TIME DEPOSITS AND BANK BALANCES

## 27. 現金及現金等價物及已抵押定期存款及銀行結餘

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Cash and bank balances	現金及銀行結餘	319,680	470,189
Time deposits	定期存款	181,074	14,778
		<b>500,754</b>	484,967
Less: Pledged time deposits and bank balances (note)	減：已抵押定期存款及銀行結餘(附註)	<b>(98,266)</b>	(142,009)
Cash and cash equivalents	現金現金等價物	<b>402,488</b>	342,958

Note: Pledged time deposits and bank balances represent amounts held by banks, which are not available for the Group's use, as security for issuance of bills to the Group's suppliers, letters of credit and letters of guarantee relating to the EPC contracts and the O&M contracts signed with customers and lawsuit freezes funds. Upon maturity of the letters of credit and letters of guarantee, the deposits are released by the bank and become available for general use by the Group except the lawsuit freezes funds. Pledged bank deposits of the Group carried interest at market rates which ranging from 0.00% to 2.75% per annum as at 31 December 2022 (2021: from 0.00% to 2.75% per annum).

附註：已抵押定期存款及銀行結餘指由銀行持有而不可由本集團動用，作為向本集團供應商發出票據、有關EPC合約及與客戶及訴訟凍結基金簽訂的運維合約的信用狀及擔保函所作擔保之金額。倘信用狀及擔保函到期時，有關存款獲銀行發放並可由本集團(除訴訟凍結基金外)用作一般用途。於2022年12月31日，本集團的已抵押銀行存款按介乎0.00%至2.75%(2021年：介乎0.00%至2.75%)的市場年利率計息。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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**27. CASH AND CASH EQUIVALENTS AND PLEDGED TIME DEPOSITS AND BANK BALANCES (Continued)**      **27. 現金及現金等價物及已抵押定期存款及銀行結餘(續)**

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
The above balances denominated in:	上述結餘以下列貨幣計值：		
– RMB	– 人民幣	439,345	468,896
– United States dollar (“USD”)	– 美元	2,638	12,403
– Hong Kong dollar (“HKD”)	– 港元	56,075	1,045
– Euro (“EUR”)	– 歐元	2,696	2,623
		<b>500,754</b>	<b>484,967</b>

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.

Bank balances and cash of the Group comprise cash held by the Group and bank balances that bear interest at prevailing market rates ranging from 0.00% to 1.3% per annum as at 31 December 2022 (2021: from 0.00% to 1.15% per annum), with an original maturity of three months or less.

人民幣不可自由兌換為其他貨幣，但根據中國大陸的外匯管制條例及結匯、售匯及付匯管理規定，本集團可透過獲授權進行外匯業務的銀行將人民幣兌換為其他貨幣。

本集團銀行結餘及現金包括本集團持有的計息現金及銀行結餘，於2022年12月31日，該等銀行結餘按介乎0.00%至1.3%（2021年：介乎0.00%至1.15%）的現行市場年利率計息且原到期日為三個月或以下。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 28. TRADE AND BILLS PAYABLES

## 28. 貿易應付款項及應付票據

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Bills payables	應付票據	287,494	303,862
Trade payables	貿易應付款項	846,746	832,474
Total	總計	<b>1,134,240</b>	1,136,336

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

貿易應付款項及應付票據於報告期末按發票日期之賬齡分析如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
1 to 90 days	1至90日	409,766	466,320
91 to 180 days	91至180日	265,540	277,646
181 to 365 days	181至365日	115,173	113,611
1 to 2 years	1至2年	172,004	107,132
2 to 3 years	2至3年	57,154	71,447
Over 3 years	超過3年	114,603	100,180
		<b>1,134,240</b>	1,136,336

The trade payables are non-interest-bearing and are normally settled on 30-90 day terms.

貿易應收款項乃不計息，一般按30至90日信貸期結算。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 29. OTHER PAYABLES, DEPOSITS RECEIVED AND ACCRUED EXPENSES 29. 其他應付款項、已收按金及應計開支

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Payable for acquisition of a subsidiary	收購附屬公司應付款項	—	103,266
Accrued payroll	應計工資	58,466	59,575
Accrued expenses	應計開支	110,890	57,878
Accrued liabilities (note)	應計負債(附註)	50,076	52,516
Other tax payables	其他應付稅項	78,251	51,865
Borrowings from non-controlling shareholders	來自非控股股東的借款	6,100	29,700
Guarantee deposits from customers	自客戶收取的保證金	27,178	22,844
Others	其他	10,534	14,556
		<b>341,495</b>	<b>392,200</b>

Note: Accrued liabilities mainly represent the disposal expenses of the two landfills in Qinghai Boqi which are accounted at present value, and the expected loss for onerous contracts recorded when it is probable that total contract costs will exceed total contract revenue.

附註：應計負債主要指出售青海博奇兩塊填埋場的開支(以現值入賬)，以及錄得總合約成本可能超過總合約收益的虧損合約的預期虧損。

## 30. CONTRACT LIABILITIES

## 30. 合約負債

		31 December 2022 2022年 12月31日 RMB'000 人民幣千元	31 December 2021 2021年 12月31日 RMB'000 人民幣千元	1 January 2021 2021年 1月1日 RMB'000 人民幣千元
Construction services	建造服務	109,009	116,197	71,873

Contract liabilities represent advances received for the provision of construction service. The decrease in contract liabilities in 2022 was mainly due to the increase of the completion of construction services (The increase in contract liabilities in 2021 was mainly due to the increase of the construction services).

合約負債指就提供建造服務所收取的墊款。於2022年合約負債減少，主要由於完成的建造服務增加所致(於2021年合約負債增加，主要由於建造服務增加所致)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 31. INTEREST-BEARING BANK AND OTHER BORROWINGS 31. 計息銀行及其他借款

		As at 31 December 2022 於2022年12月31日			As at 31 December 2021 於2021年12月31日		
		Effective interest rate (%) 實際利率 (%)	Maturity 到期日	RMB'000 人民幣千元	Effective interest rate (%) 實際利率 (%)	Maturity 到期日	RMB'000 人民幣千元
<b>Current</b>	<b>即期</b>						
Bank loans – unsecured	銀行貸款 – 無抵押	3.70	2023	24,000	3.85	2022	2,000
Bank loans – secured	銀行貸款 – 有抵押	2.80-3.95	2023	38,313	2.80-3.95	2022	64,009
Current portion of long-term loans – secured	長期貸款的即期部分 – 有抵押	5.85-7.71	2023	29,795	7.82	2022	16,557
				92,108			82,566
<b>Non-current</b>	<b>非即期</b>						
Bank loans – secured	銀行貸款 – 有抵押	3.95	2024	20,000	3.95	2023-2024	36,000
Loans from other financial institutions – secured	來自其他金融機構的貸款 – 有抵押	5.85-7.71	2024-2026	62,029	7.82	2023-2025	47,399
				82,029			83,399
<b>Total</b>	<b>總計</b>			174,137			165,965

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 31. INTEREST-BEARING BANK AND OTHER BORROWINGS (Continued)

### 31. 計息銀行及其他借款(續)

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Analysed into:	分析為：		
Bank loans and overdrafts repayable:	應償還的銀行貸款及透支：		
Within one year	一年內	62,313	66,009
In the second year	第二年	20,000	16,000
In the third to fifth years, inclusive	第三年至第五年 (包括首尾兩年)	—	20,000
		<b>82,313</b>	102,009
Other borrowings repayable:	應償還的其他借款：		
Within one year	一年內	29,795	16,557
In the second year	第二年	31,702	17,877
In the third to fifth years, inclusive	第三年至第五年 (包括首尾兩年)	30,327	29,522
		<b>91,824</b>	63,956
		<b>174,137</b>	165,965

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

As at 31 December 2022, borrowings from other financial institutions of approximately RMB47,431,000 (2021: RMB63,956,000) were secured by Beijing Boqi's equity interests in Jinggangshan Boqi and of approximately RMB44,393,000 (2021: nil) were secured by Beijing Boqi's equity interests in Handan Boqi.

As at 31 December 2022, borrowings from banks of approximately RMB36,000,000 (2021: RMB50,000,000) were secured by the Group's investment properties.

到期款項乃基於借款協議所載的計劃償還日期。

於2022年12月31日，來自其他金融機構的借款約人民幣47,431,000元(2021年：人民幣63,956,000元)由北京博奇於井岡山博奇的股權作抵押，而約人民幣44,393,000元(2021年：無)由北京博奇於邯鄲博奇的股權作抵押。

於2022年12月31日，銀行借款約人民幣36,000,000元(2021年：人民幣50,000,000元)由本集團的投資物業作抵押。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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### 31. INTEREST-BEARING BANK AND OTHER BORROWINGS (Continued)

Interest on bank and other borrowings denominated in RMB at floating rates is calculated based on the borrowing rates announced by the People's Bank of China. The effective interest rate bank borrowings are charged at the prevailing market rates at 2.80%-7.71% (2021: 2.80%-7.82%).

### 32. DEFERRED TAX

The components of deferred tax assets/liabilities recognised in the consolidated statement of financial position and the movements during the year are as follows:

#### Deferred tax assets

		Allowance for credit losses and inventories	Impairment for other non-current assets	Losses available for offsetting against future taxable profits	Provision for onerous contracts	Accrued expenses	Depreciation		Right-of-use assets	Total
							Patents	of fixed assets		
		信貨虧損撥備及存貨	其他非流動資產的減值	可用作抵銷未來的應課稅溢利的虧損	虧損合約撥備	應計開支	專利	固定資產折舊	使用權資產	總計
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元
At 1 January 2021	於2021年1月1日	15,354	1,054	-	2,762	10,948	4,473	-	-	34,591
Acquisition of a subsidiary (note 38)	收購附屬公司(附註38)	-	-	-	671	-	-	-	-	671
Credited/(charged) to profit or loss	計入(扣除自)損益	(973)	527	-	(1,251)	(2,266)	(528)	1,629	758	(2,104)
At 31 December 2021	於2021年12月31日	14,381	1,581	-	2,182	8,682	3,945	1,629	758	33,158
Credited/(charged) to profit or loss	計入(扣除自)損益	2,752	-	1,217	385	7,951	(502)	-	695	12,498
At 31 December 2022	於2022年12月31日	17,133	1,581	1,217	2,567	16,633	3,443	1,629	1,453	45,656

### 31. 計息銀行及其他借款(續)

以人民幣計值的浮息銀行及其他借款的利息按中國人民銀行公佈的借款利率計算。銀行借款的實際利率按2.80%至7.71%(2021年:2.80%至7.82%)的現行市場年利率收取。

### 32. 遞延稅項

在綜合財務狀況表內確認的遞延稅項資產/負債部分及年內變動如下:

#### 遞延稅項資產

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 32. DEFERRED TAX (Continued)

## Deferred tax liabilities

		<b>Withholding tax on the earnings anticipated to be distributed by subsidiaries</b>	<b>Fair value adjustments arising from acquisition of a subsidiary</b>	<b>Total</b>
		預期附屬公司 將分派的盈利的 預扣稅	收購附屬公司 產生的公允 價值調整	總計
		RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	(17,114)	-	(17,114)
Acquisition of a subsidiary (note 38)	收購附屬公司 (附註38)	-	(5,886)	(5,886)
(Charged)/credited to profit or loss	(計入)/扣除自損益	(6,035)	93	(5,942)
At 31 December 2021	於2021年12月31日	(23,149)	(5,793)	(28,942)
(Charged)/credited to profit or loss	(計入)/扣除自損益	(2,654)	4,861	2,207
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>(25,803)</b>	<b>(932)</b>	<b>(26,735)</b>

Deferred tax assets have not been recognised in respect of the following items:

As at 31 December 2022, the Group has unused tax loss of RMB12,532,000 (2021: RMB8,652,000) available for offset against future profits for the consecutive five years and will expire between 2023 and 2027. The Group also has tax losses arising in Mainland China of RMB8,109,000 (2021: nil) on which deferred tax assets have been recognised. The tax losses arising in Mainland China are available for a maximum of five years to offset against future taxable profits of the companies in which the losses arose.

According to the relevant tax law in PRC, dividend distributed to foreign investors out of the profit generated from 1 January 2008 onwards shall be subject to withholding tax at 10% and withheld by PRC entities, pursuant to Articles 3 and 37 of the EIT Law and Article 91 of its Detailed Rules for the Implementation of the Regulation.

遞延稅項資產並無就下列項目確認：

於2022年12月31日，本集團有未動用稅項虧損人民幣12,532,000元（2021年：人民幣8,652,000元），可用於抵銷連續五年的未來溢利並將於2023年至2027年期間到期。本集團亦有在中國大陸產生的稅項虧損人民幣8,109,000元（2021年：無）並已就此確認遞延稅項資產。在中國大陸產生的稅項虧損在最多五年內可用作抵銷所產生虧損公司的未來應課稅溢利。

根據中國相關稅法，按企業所得稅法第3及37條以及其實施條例細則第91條，中國實體須就自2008年1月1日以來產生的溢利向海外投資者分派的股息繳納10%的預扣稅。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 32. DEFERRED TAX (Continued)

## Deferred tax liabilities (Continued)

As at 31 December 2022, the Group recognised the relevant deferred tax liabilities of RMB25,803,000 (2021: RMB23,149,000) on earnings anticipated to be remitted by certain subsidiaries in the foreseeable future. At the end of the reporting period, the aggregate amount of temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognised was RMB1,446,155,000 (2021: RMB1,262,732,000)

## 32. 遞延稅項(續)

## 遞延稅項負債(續)

於2022年12月31日，本集團就預計若干附屬公司於可預見未來將匯出的盈利確認相關的遞延所得稅負債人民幣25,803,000元(2021年：人民幣23,149,000元)。於報告期末，並無確認遞延稅項負債的附屬公司未分配盈利相關的暫時差異總額為人民幣1,446,155,000元(2021年：人民幣1,262,732,000元)。

## 33. CONTINGENT CONSIDERATION

## 33. 或然代價

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Payable for acquisition of a subsidiary (note 6)	收購附屬公司應付代價 (附註6)	—	10,060

## 34. 長期應付款項

## 34. LONG-TERM PAYABLE

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Payable for acquisition of subsidiary (note 6)	收購附屬公司應付款項 (附註6)	—	99,420

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 35. SHARE CAPITAL

## Shares

## 35. 股本

## 股份

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Issued and fully paid: 5,000,000,000 (2021: 5,000,000,000) ordinary shares at US\$0.00001 each	已發行及繳足： 5,000,000,000股(2021年： 5,000,000,000股) 每股面值0.00001美元的 普通股	67	67

A summary of movements in the Company's share capital is as follows:

本公司股本的變動概要如下：

		Number of shares in issue 已發行股份數目	Share capital 股本 RMB'000 人民幣
At 1 January 2021	於2021年1月1日	1,007,106,799	67
Share repurchased and cancelled (note)	已購回及註銷的股份(附註)	(1,330,000)	-
At 31 December 2021 and 1 January 2022	於2021年12月31日及 2022年1月1日	1,005,776,799	67
Share repurchased and cancelled (note)	已購回及註銷的股份(附註)	(56,000)	-
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>1,005,720,799</b>	<b>67</b>



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 35. SHARE CAPITAL (Continued)

## Shares (Continued)

Note: During 2022 and 2021, the Company purchased its own ordinary shares on the Hong Kong Stock Exchange as follows:

## 2022

## 2022年

Date of repurchase	Number of ordinary shares of HK\$1.35 each 每股面值 1.35港元的 普通股數目	Price per share		Aggregate consideration paid	
		Highest	Lowest		
購回日期		最高	最低	已付代價總額	
		HK\$	HK\$	HK\$'000	
		港元	港元	千港元	
31 March 2022	2022年3月31日	56,000	1.32	1.32	74

## 2021

## 2021年

Date of repurchase	Number of ordinary shares of HK\$1.35 each 每股面值 1.35港元的 普通股數目	Price per share		Aggregate consideration paid	
		Highest	Lowest		
購回日期		最高	最低	已付代價總額	
		HK\$	HK\$	HK\$'000	
		港元	港元	千港元	
29 September 2021	2021年9月29日	30,000	1.35	1.33	40
30 September 2021	2021年9月30日	600,000	1.39	1.32	816
06 October 2021	2021年10月6日	500,000	1.37	1.30	671
15 October 2021	2021年10月15日	200,000	1.34	1.28	262

None of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities during the year (2021: nil).

## 35. 股本(續)

## 股份(續)

附註：於2022年及2021年，本公司在香港聯交所購回其普通股，詳情如下：

於年內，本公司附屬公司概無購買、出售或贖回本公司任何上市證券(2021年：無)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 36. SHARE-BASED PAYMENTS

## (a) Share Option Scheme

The Company adopted a share option scheme (the “**Scheme 2020**”) on 29 December 2020, i.e. the date on which the Scheme 2020 was adopted by resolution of the Shareholders at general meeting (the “**Adoption Date**”). The purpose of the Scheme 2020 is to enable the Group to grant options to the eligible participants as incentives or rewards for their contribution to the Group. Eligible participants of the Scheme 2020 include any eligible employee, any independent non-executive director and chief executive (as defined in the Listing Rules) of the Company or any subsidiary, any director (including independent non-executive director) and chief executive (as defined in the Listing Rules) of any invested entity, any adviser (professional or otherwise) or consultant to any area of business or business development of any member of the Group or any invested entity, any supplier of goods or services to any member of the Group or any invested entity, any customer of any member of the Group or any invested entity, any person or entity that provides research, development or other technological support to any member of the Group or any invested entity; and any shareholder of any member of the Group or any invested entity or any holder of any securities issued by any member of the Group or any invested entity. The Scheme 2020 shall be valid and effective for a period of ten years from the Adoption Date.

## 36. 以股份為基礎的付款

## (a) 股份期權計劃

本公司於2020年12月29日(「**採納日期**」)採納一項股份期權計劃(「**2020年計劃**」)，於當日，2020年計劃在股東大會上獲股東通過決議案採納。2020年計劃旨在讓本集團可向合資格參與者授出期權，作為彼等對本集團作出貢獻之獎勵或回報。2020年計劃的合資格參與者包括：任何合資格僱員；本公司或任何附屬公司的任何獨立非執行董事及最高行政人員(定義見上市規則)；任何被投資實體的任何董事(包括獨立非執行董事)及最高行政人員(定義見上市規則)；本集團任何成員公司或任何被投資實體的任何業務範疇或業務發展的任何顧問(專業或其他方面)或專業顧問；向本集團任何成員公司或任何被投資實體提供產品或服務的任何供應商；本集團任何成員公司或任何被投資實體的任何客戶；向本集團任何成員公司或任何被投資實體提供研究、開發及其他技術支援的任何人士或實體；及本集團任何成員公司或任何被投資實體的任何股東，或由本集團任何成員公司或任何被投資實體發行任何證券的任何持有人。2020年計劃自採納日期起十年內有效和具效力。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 36. SHARE-BASED PAYMENTS (Continued)

##### (a) Share Option Scheme (Continued)

The maximum number of the Company's shares which may be issued upon exercise of all options to be granted under the Scheme 2020 must not exceed 10% of the number of the Company's shares in issue as at the Adoption Date (which were 1,007,106,799 shares) unless shareholders' approval has been obtained, and which must not exceed 30% of the total number of the Company's shares in issue from time to time (or such other percentage as may be allowed under the Listing Rules).

The maximum number of shares of the Company issued and to be issued upon exercise of the options granted to each eligible participant under the Scheme 2020 or any other share option schemes adopted by the Company (including both exercised, cancelled and outstanding options) in any 12-month period must not exceed 1% of the total number of issued shares of the Company. Any further grant of share options in excess of this limit is subject to shareholders' approval in a general meeting.

Where any grant of options to a substantial shareholder or an independent non-executive director of the Company or any of their respective associates, would result in the shares issued and to be issued upon exercise of all options already granted and to be granted (including options exercised, cancelled and outstanding) to such person in the 12-month period up to and including the date of such grant: (a) representing in aggregate over 0.1% of the shares in issue; and (b) having an aggregate value, based on the closing price of the shares at the offer date of each offer, in excess of HK\$5 million; such further grant of options must be approved by the shareholders of the Company in general meeting.

#### 36. 以股份為基礎的付款(續)

##### (a) 股份期權計劃(續)

因行使根據2020年計劃將予授出的所有期權而可能發行的本公司股份最高數目，不得超過本公司於採納日期已發行股份數目(為1,007,106,799股股份)的10%，惟已獲得股東批准則除外，而在此情況下，上述股份最高數目不得超過本公司不時的已發行股份總數的30%(或上市規則可能容許的其他百分比)。

於任何12個月期間，因根據2020年計劃及本公司採納的任何其他股份期權計劃向每名合資格參與者授出的期權(包括已行使、已註銷或尚未行使的期權)獲行使而發行及將予發行的股份最高數目，不得超過本公司已發行股份總數的1%。任何超出該上限的進一步授出股份期權須經股東在股東大會上批准。

倘向本公司主要股東或獨立非執行董事或彼等各自的任何聯繫人授予期權，導致有關人士於截至期權授出當日(包括該日)十二個月期間內所有已獲授及將獲授的期權(包括已行使、已註銷及尚未行使的期權)獲行使後已發行及將予發行的股份：(a)合共佔已發行股份逾0.1%；及(b)按每次授出期權當日的股份收市價計算總值超過5百萬港元，則有關進一步授出期權須本公司股東在股東大會上批准。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 36. SHARE-BASED PAYMENTS (Continued)

## (a) Share Option Scheme (Continued)

Any grant of options under the Scheme 2020 to an independent non-executive director, chief executive or substantial shareholder of the Company or any of their respective associates (each as defined under the Listing Rules) must be approved by the independent non-executive directors (excluding any independent non-executive director who or whose associate is the proposed grantee of the option).

The offer of a grant of share options may be accepted within 21 days from the date of offer, upon payment of a nominal consideration of HK\$1 in total by the grantee. The period within which the options must be exercised will be specified by the Company at the time of grant. This period must expire no later than ten years from the relevant date of grant. The board may also provide restrictions on the exercise of an option during the period an option may be exercised.

The share options shall vest in four tranches on the following vesting dates provided that the vesting conditions applicable to such eligible participant are satisfied:

- first 40% of the options are vested on the one-year anniversary from the offer date;
- next 25% of the options are vested on the two-year anniversary from the offer date;
- then 20% of the options are vested on the three-year anniversary from the offer date; and
- remaining 15% of the options are vested on the four-year anniversary from the offer date.

## 36. 以股份為基礎的付款(續)

## (a) 股份期權計劃(續)

根據2020年計劃向本公司的獨立非執行董事、主要行政人員或主要股東或彼等各自的任何聯繫人(各詞的定義見上市規則)授出任何期權，須由獨立非執行董事(不包括本身或其聯繫人為擬定期權授予者的任何獨立非執行董事)批准。

所獲授的股份期權可自要約日期起計21日內，由承授人支付合共1港元的象徵式代價予以接納。期權須予行使的期間將由本公司於授出時指定。該期間須不遲於自有關授出日期起計滿十年之日屆滿。董事會亦可於期權可予行使的期間內對期權的行使施加限制。

股份期權須於以下歸屬日期分四批歸屬，惟須達成適用於有關合資格參與者的歸屬條件：

- 首批40%期權自要約日期起計滿一週年歸屬；
- 次批25%期權自要約日期起計滿兩週年歸屬；
- 其次的20%期權自要約日期起計滿三週年歸屬；及
- 餘下15%期權自要約日期起計滿四週年歸屬。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (a) Share Option Scheme (Continued)

The subscription price in respect of each share of the Company issued pursuant to the exercise of options granted under the Scheme 2020 shall be determined by the board and notified to an eligible participant at the time of the grant of the options and shall be at least the highest of (i) the closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheets on the date of the board approving the grant of option, which must be a business day ("Date of Grant"); (ii) the average of the closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the Date of Grant; and (iii) the nominal value of the Company's share.

Share options do not confer rights on the holders to dividends or to vote at shareholders' meetings.

The exercise prices and exercise periods of the share options outstanding as at the end of the reporting period are as follows:

## 2022

Number of options 期權數目	Exercise price HK\$ per share 行使價 每股港元	Exercise period 行使期
3,120,000	1.51	7 April 2023 to 6 April 2033 2023年4月7日至2033年4月6日
9,350,000	1.88	28 June 2023 to 28 June 2033 2023年6月28日至2033年6月28日
12,470,000		

## 36. 以股份為基礎的付款(續)

## (a) 股份期權計劃(續)

因根據2020年計劃授出的期權獲行使而發行的本公司每股股份的認購價，應由董事會釐定並於授出期權時通知合資格參與者，而認購價不得少於以下最高者：(i)於舉行董事會會議以批准授出期權的日期(必須為營業日)(「授出日期」)在聯交所每日報價表所列的本公司股份收市價；(ii)緊接授出日期前五個營業日在聯交所每日報價表所列的本公司股份收市價的平均數；及(iii)本公司股份面值。

股份期權並不賦予持有人享有股息或在股東大會上投票的權利。

於期告期末尚未行使的股份期權的行使價及行使期如下：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 36. SHARE-BASED PAYMENTS (Continued)

## (a) Share Option Scheme (Continued)

2021

Number of options 期權數目	Exercise price HK\$ per share 行使價 每股港元	Exercise period 行使期
3,120,000	1.51	7 April 2023 to 6 April 2033 2023年4月7日至2033年4月6日
11,100,000	1.88	28 June 2023 to 28 June 2033 2023年6月28日至2033年6月28日
14,220,000		

The fair value of the share options granted during the year was nil (nil each) (2021: RMB14,179,000 (RMB0.67 each)), of which the Group recognised a share option expense of RMB2,439,000 (2021: RMB2,847,000) during the year ended 31 December 2022.

The fair value of equity-settled share options granted during the year was estimated as at the date of grant using a binomial model, taking into account the terms and conditions upon which the options were granted. The following table lists the inputs to the model used:

		7 April 2021 2021年4月7日	28 June 2021 2021年6月28日
Dividend yield (%)	股息率(%)	4.32	4.21
Expected volatility (%)	預期波幅(%)	61.62	61.57
Historical volatility (%)	歷史波幅(%)	61.62	61.57
Risk-free interest rate (%)	無風險利率(%)	1.38	1.37
Expected life of options (year)	預計期權有效年期(年)	10.00	10.00
Spot price (HK\$ per share)	現價(每股港元)	1.51	1.88
Exercise price (HK\$ per share)	行使價(每股港元)	1.51	1.88

The expected volatility reflects the assumption that the historical volatility is indicative of future trends, which may also not necessarily be the actual outcome. The spot price and the exercise price both are the closing price of the Company's shares at the grant date.

## 36. 以股份為基礎的付款(續)

## (a) 股份期權計劃(續)

於年內授出的股份期權公允價值為零(每份為零)(2021年:人民幣14,179,000元(每份人民幣0.67元)),而本集團就此於截至2022年12月31日止年度確認股份期權開支人民幣2,439,000元(2021年:人民幣2,847,000元)。

年內授出的以權益結算的股份期權之公允價值乃於授出日期使用二項模式估計,並已計及授出期權的條款及條件。下表列示所使用模式的輸入數據:

預期波幅反映歷史波幅可顯示未來趨勢這個假設,但這並非必然出現的結果。現價及行使價兩者均為本公司股份於授出日期的收市價。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 36. SHARE-BASED PAYMENTS (Continued)

## (a) Share Option Scheme (Continued)

Movement of the share options:

		2022 2022年	2021 2021年
At the beginning of the year	於年初	14,220,000	–
Granted during the year	年內授出	–	21,120,000
Forfeited during the year	年內沒收	(1,750,000)	(6,900,000)
At the end of the year	於年末	12,470,000	14,220,000

At the end of the reporting period, the Company had 12,470,000 share options outstanding under the Scheme 2020. The exercise in full of the outstanding share options would, under the present capital structure of the Company, result in the issue of 12,470,000 additional ordinary shares of the Company and additional share capital of RMB1,000 (2021: RMB1,000) and share premium of RMB19,909,000 (2021: RMB20,914,000) (before issue expenses).

At the date of approval of these financial statements, the Company had 12,470,000 share options outstanding under the Scheme, which represented approximately 1.19% of the Company's shares in issue as at that date.

## 36. 以股份為基礎的付款(續)

## (a) 股份期權計劃(續)

股份期權的變動：

於報告期末，本公司在2020年計劃項下有12,470,000份尚未行使的股份期權。倘悉數行使該等尚未行使的股份期權，則根據本公司現時資本結構，將導致額外發行12,470,000股本公司普通股及產生額外股本人民幣1,000元(2021年：人民幣1,000元)及股份溢價人民幣19,909,000元(2021年：人民幣20,914,000元)(未計發行開支)。

於本財務報表批准日期，本公司在該計劃項下有12,470,000份尚未行使的股份期權，相當於本公司當日的已發行股份約1.19%。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme

The Company adopted the Pre-IPO Share Award Scheme (“**Scheme 2016**”) pursuant to a resolution passed by the Directors on 15 April 2016, through which a total of 25,000,000 shares (“**Awarded Shares**”) at a par value of US\$0.00001 each were issued to Acheson (the “**Trust**”) on 11 May 2016, who will hold the Awarded Shares for the benefit of the eligible employees (“**Selected Employees**”) and facilitate the purchase, holding and/or vesting of such Awarded Shares as a trustee pursuant to the trust deed (“**Trust Deed**”) signed by the Company. The Trust was established pursuant to the Trust Deed dated 2 September 2016 with retrospective effect from 10 May 2016.

A management committee has been established and authorised by the Directors to make all determination and provide directions to the Trustee in relation to the Scheme (the “**Committee**”). The Pre-IPO Share Award Scheme is valid and effective for a period of ten years from the date of adoption.

## 36. 以股份為基礎的付款(續)

## (b) 獎勵股份計劃

本公司根據董事於2016年4月15日通過的決議案採納首次公開發售前股份獎勵計劃(「**2016年計劃**」)，據此，合共25,000,000股每股面值0.00001美元的股份(「**獎勵股份**」)於2016年5月11日發行予Acheson(「**信託**」)，其將以合資格僱員(「**經甄選僱員**」)的利益持有獎勵股份並根據本公司簽署的信託契據(「**信託契據**」)作為受託人促使購買、持有及／或歸屬該等獎勵股份。該信託乃根據日期為2016年9月2日並追溯至2016年5月10日起生效的信託契據成立。

管理委員會(「**委員會**」)已告成立並獲董事授權就計劃作出一切決定及向受託人提供指導。首次公開發售前股份獎勵計劃自採納日期起為期十年有效且具效力。





## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 36. SHARE-BASED PAYMENTS (Continued)

##### (b) Award Share Scheme (Continued)

Pursuant to the Scheme, the Selected Employees are entitled to subscribe for the Awarded Shares at the price of RMB0.85 per Awarded Share by way of a loan provided by the Company. The Awarded Shares shall vest in three tranches on the following vesting dates provided that the vesting conditions applicable to such Selected Employee are satisfied:

- (i) 50% on the date of listing of the Company's shares on the Main Board of the Stock Exchange of Hong Kong Limited ("**Listing**" and "**Listing Date**") (the "First Vested Shares"), provided the Selected Employees remain in service until the first trading day following the first anniversary of the Listing Date;
- (ii) 25% on the first trading date following the first anniversary of the Listing Date; and
- (iii) 25% on the first trading date following the second anniversary of the Listing Date.

#### 36. 以股份為基礎的付款(續)

##### (b) 獎勵股份計劃(續)

根據計劃，經甄選僱員有權按每股獎勵股份人民幣0.85元的價格以向本公司貸款的方式認購獎勵股份。獎勵股份須於以下歸屬日期分三批歸屬，惟須達成適用於有關經甄選僱員的歸屬條件：

- (i) 50%的獎勵股份於本公司股份在香港聯合交易所有限公司主板上市當日(「上市」及「上市日期」)歸屬(「首批歸屬股份」)，前提是被授予股份的員工在上市日期第一週年後第一個交易日前不得離職；
- (ii) 25%的獎勵股份將於上市日期第一週年後第一個交易日歸屬；及
- (iii) 25%的獎勵股份將於上市日期第二週年後第一個交易日歸屬。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme (Continued)

Upon the date of Listing, the trustee will sell the First Vested Shares under the instruction of the Committee. The proceeds, after netting off the loan borrowed by the respective Selected Employees (“**Net Proceeds**”), 80% of which will be paid to the Selected Employees. However, if such Selected Employee terminates his employment with the Group during the one-year period after the Listing Date, the Net Proceeds received should be repaid to the Company. The remaining 20% of the Net Proceeds will be paid provided that such Selected Employee continues to serve the Company for one year after the Listing Date. If the proceeds are less than the amount of the loan borrowed, the Selected Employee will still need to repay the loan to the Company.

The expected vesting period for tranches (i) and (ii) is one year after the Listing Date and the expected vesting period for tranche (iii) is two years after the Listing Date.

On 7 September 2016, the Company granted 23,170,000 Awarded Shares to the Selected Employees. The details of the Awarded Shares granted for the year ended 31 December 2016 are as follows:

Number of Awarded Shares granted	Grant date	Expiry date	Purchase price (HKD) 購買價 (港元)
授出獎勵股份的數目	授出日期	屆滿日期	
23,170,000	7 September 2016 2016年9月7日	7 September 2026 2026年9月7日	0.85

## 36. 以股份為基礎的付款(續)

## (b) 獎勵股份計劃(續)

於上市日期，受託人將按委員會的指示出售首批歸屬股份。扣除相關經甄選僱員籌借的貸款後，所得款項(「**所得款項淨額**」)的80%將付予經甄選僱員。然而，倘有關經甄選僱員於上市日期後一年期間終止與本集團的僱傭關係，則已收取的所得款項淨額應退回予本公司。所得款項淨額的餘下20%將支付予經甄選僱員，惟有關經甄選僱員須於上市日期後一年期間繼續在本公司任職方可作實。倘所得款項低於已借入貸款金額，經甄選僱員仍將須向本公司償還貸款。

預計(i)及(ii)批次的歸屬期間為上市日期後一年，而(iii)批次的預計歸屬期間為上市日期後兩年。

於2016年9月7日，本公司授予23,170,000股獎勵股份予經甄選僱員。截至2016年12月31日止年度授出的獎勵股份詳情如下：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme (Continued)

In accordance with the Trust deed entered into between the Trust and the Company (“**Trust Deed**”), the Company has the control over the Trust. Therefore, the Trust is consolidated by the Group. Accordingly, the shares issued and held by Acheson should be treated as treasury shares and shown as separate amounts in the consolidated statement of changes in equity. In addition, finance costs and administration expenses of the trust are recognised in profit or loss of the Group.

The Group has determined the fair value of the Awarded Shares based on the binominal option-pricing model as of the grant date. The valuation model requires the input of highly subjective assumptions, including the entity risk premium and the discount rate due to lack of control, and changes in the subjective input assumptions can materially affect the fair value estimate of the Awarded Shares.

## 36. 以股份為基礎的付款(續)

## (b) 獎勵股份計劃(續)

根據信託與本公司訂立的信託契據(「**信託契據**」)，本公司對信託具有控制權。因此，信託由本集團綜合入賬。因此，Acheson所發行及持有之股份應被視為庫存股份並於綜合權益變動表中單獨列示金額。此外，信託的融資成本及行政開支在本集團損益中確認。

本集團已於授出日期按「二項式」期權定價模式釐定獎勵股份的公允價值。該估值模式需要作出高度主觀假設的輸入，包括股權風險溢價及缺乏控制折讓率，且主觀輸入假設的變動可對獎勵股份的公允價值的估計造成重大影響。

		<b>7 September 2016 2016年9月7日</b>
Weighted average grant date fair value per share	每股加權平均授出日公允價值	RMB1.94 人民幣1.94元
Weighted average exercise price	加權平均行使價	RMB0.85 人民幣0.85元
Detailed forecast period	詳細預測期	5 years 5年
Weighted average cost of capital	加權平均資本成本	16.83%
Leveraged beta	槓桿beta	1.04
Entity risk premium	股權風險溢價	0.5%
Discount rate due to lack of control	缺乏控制折讓率	10%

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme (Continued)

The Company adopted the Supplementary Scheme of the Pre-IPO Share Award Scheme (“**Supplementary Scheme**”) pursuant to a resolution passed by the Directors on 28 August 2019, which authorises the chief executive officer to complete the selection of grantees, the allocation of shares and the signing of agreements and other related work to grant the shares withdrawn and had not been granted on 7 September 2016.

Pursuant to the Supplementary Scheme, the Selected Employees are entitled to subscribe for the Awarded Shares without a consideration. The Awarded Shares shall vest in two tranches on the following vesting dates provided that the vesting conditions applicable to such Selected Employee are satisfied:

- 60% on 30 June 2021, provided the Selected Employees remain in service until 30 June 2022;
- 40% on 30 June 2022.

The expected vesting date for tranches (i) and (ii) is 30 June 2022.

## 36. 以股份為基礎的付款(續)

## (b) 獎勵股份計劃(續)

本公司根據董事於2019年8月28日通過的決議案，採納首次公開發售前股份獎勵計劃的補充計劃(「**補充計劃**」)，授權主要行政人員可完成承授人的甄選、股份分配及各項協議的簽訂以及其他相關工作，以授出於2016年9月7日已撤回而未有授出的股份。

根據補充計劃，經甄選僱員有權無償認購獎勵股份。獎勵股份須於以下歸屬日期分兩批歸屬，惟須達成適用於有關經甄選僱員的歸屬條件：

- 60%於2021年6月30日歸屬，前提是經甄選僱員在2022年6月30日前不得離職；
- 40%於2022年6月30日歸屬。

第(i)及(ii)批的預計歸屬日期為2022年6月30日。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme (Continued)

On 24 February 2021 and 31 March 2021, the Company granted 3,100,000 and 1,040,000 Awarded Shares to the Selected Employees, respectively. The details of the Awarded Shares granted for the year ended 31 December 2022 are as follows:

Number of Awarded Shares granted 授出獎勵股份的數目	Grant date 授出日期	Expiry date 屆滿日期	Purchase price 購買價
3,100,000	24 February 2021 2021年2月24日	28 August 2029 2029年8月28日	–
1,040,000	31 March 2021 2021年3月31日	28 August 2029 2029年8月28日	–

The Group has determined the fair value of the Awarded Shares based on the binominal option-pricing model as of the grant date, taking into account the terms and conditions upon which the options were granted. The following table lists the significant inputs to the model used:

		24 February 2021 2021年 2月24日	31 March 2021 2021年 3月31日
Dividend yield (%)	股息率(%)	4.32	4.32
Expected volatility (%)	預期波幅(%)	61.92	61.68
Historical volatility (%)	歷史波幅(%)	61.92	61.68
Risk-free interest rate (%)	無風險利率(%)	1.10	1.30
Expected life of options (year)	預計期權有效年期(年)	10.00	10.00
Spot price (HK\$ per share)	現價(每股港元)	1.36	1.38

## 36. 以股份為基礎的付款(續)

## (b) 獎勵股份計劃(續)

於2021年2月24日及2021年3月31日，本公司分別授出3,100,000股及1,040,000股獎勵股份予經甄選僱員。截至2022年12月31日止年度授出的獎勵股份詳情如下：

本集團已於授出日期按「二項式」期權定價模式釐定獎勵股份的公允價值，其中計及授出期權所依據的條款及條件。下表列示所使用該模式的重要輸入數據：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 36. SHARE-BASED PAYMENTS (Continued)

## (b) Award Share Scheme (Continued)

Movement of the Award Shares:

		2022 2022年	2021 2021年
At the beginning of the year	於年初	7,537,000	8,760,500
Granted during the year	年內授出	–	4,140,000
Exercised during the year	年內行使	–	(4,826,000)
Forfeited during the year	年內沒收	–	(537,500)
At the end of the year	於年末	7,537,000	7,537,000

The Group recognised a shared-based payment expense of Award Shares of RMB1,895,000 (2021: RMB1,677,000) and did not reverse any shared-based payment expenses (2021: nil) in profit or loss during the year in relation to the Awarded Shares granted by the Company.

於年內，本集團就本公司授出的獎勵股份，在損益中確認獎勵股份的以股份為基礎付款開支總額人民幣1,895,000元（2021年：人民幣1,677,000元），而並無撥回任何以股份為基礎付款開支（2021年：無）。

## 37. RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity on page 221 of the financial statements.

## 37. 儲備

本集團儲備金額和本年度及過往年度之有關變動，在財務報表第221頁的綜合權益變動表內呈列。

## 38. BUSINESS COMBINATION

On 30 November 2021, the Group acquired 95% of the equity interests in Qinghai Boqi at a total consideration of RMB218,269,000. The acquisition has been accounted for using the acquisition method. The amount of goodwill arising as a result of the acquisition was RMB147,957,000. Qinghai Boqi is engaged in solid hazardous waste management business, particularly, in the collection, stabilisation and disposal of solid hazardous and dangerous wastes. The acquisition was made to further expand the Group's hazardous and solid waste disposal business segment and to increase the operating results and market value of the Group.

## 38. 業務合併

於2021年11月30日，本集團以總代價人民幣218,269,000元收購青海博奇的95%股權。該收購已使用收購法入賬。因收購產生的商譽金額為人民幣147,957,000元。青海博奇從事危固廢管理業務，尤其有害及危險廢物的收集、穩定化及處置。該收購旨在進一步拓展本集團的危固廢處置業務並提升本集團的經營業績及市場價值。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 38. BUSINESS COMBINATION (Continued)

Consideration transferred:

		RMB'000 人民幣千元
Cash*	現金*	208,209
Contingent consideration arrangement**	或然代價安排**	10,060
		218,269

\* Pursuit to the share transfer agreement, a total consideration of RMB218,500,000 shall be settled by the Group in batches upon satisfaction of certain conditions precedent. The fair value of the consideration amounted to RMB208,209,000 as at 31 December 2021.

\*\* Pursuit to the share transfer agreement, the Group is required to pay an additional amount of RMB10,060,000 dependent on the amount of profit after tax of Qinghai Boqi during the 3-year period subsequent to the acquisition ("Profit Guarantee"). The fair value of such contingent consideration amounted to RMB10,060,000 as at the acquisition date and has been included in contingent consideration on the consolidated statement of financial position. The management has reassessed the fair value of the contingent consideration as at 31 December 2021, concluded that the fair value change was immaterial based on the assessment result.

The Group has elected to measure the non-controlling interest in Qinghai Boqi at the non-controlling interest's proportionate share of Qinghai Boqi's identifiable net assets.

## 38. 業務合併(續)

所轉讓代價：

		RMB'000 人民幣千元
現金*	現金*	208,209
或然代價安排**	或然代價安排**	10,060
		218,269

\* 根據股份轉讓協議，總代價人民幣218,500,000元應於達成若干先決條件時由本集團分批結算。於2022年12月31日，代價的公允價值為人民幣208,209,000元。

\*\* 根據股份轉讓協議，本集團須視乎收購後3年期間內青海博奇的除稅後溢利金額，支付額外金額人民幣10,060,000元(「利潤保證」)。於收購日期，該或然代價的公允價值為人民幣10,060,000元，並已計入綜合財務狀況表的或然代價項目內。管理層已重新評估該或然代價於2021年12月31日的公允價值，而根據評估結果，結論為公允價值變動不大。

本集團已選擇按非控股權益於青海博奇的可識別淨資產所佔百分比，來計量於青海博奇的非控股權益。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 38. BUSINESS COMBINATION (Continued)

The fair values of the identifiable assets and liabilities of Qinghai Boqi as at the date of acquisition were as follows:

## 38. 業務合併(續)

青海博奇於收購日期的可識別資產及負債之公允價值如下：

		Notes 附註	Fair value recognised on acquisition 於收購時確認 的公允價值 RMB'000 人民幣千元 (Unaudited) (未經審核)
Assets	資產		
Property, plant and equipment	物業、廠房及設備	13	113,958
Other intangible assets	其他無形資產	17	35,400
Deferred tax assets	遞延稅項資產	32	671
Other non-current assets	其他非流動資產		2,137
Debt instruments at fair value through other comprehensive income	按公允價值計入其他全面收益的債務工具		371
Inventories	存貨		365
Cash and cash equivalents	現金及現金等價物		548
Trade receivables	貿易應收款項		18,489
Prepayment deposits and other receivables	預付款項、按金及其他應收款項		2,367
<b>Total Assets</b>	<b>資產總額</b>		<b>174,306</b>
Trade and notes payables	貿易應付款項及應付票據		(16,254)
Other payables, deposits received and accrued expenses	其他應付款項、已收按金及應計開支		(76,153)
Borrowings-current	借款－即期		(2,000)
Deferred tax liabilities	遞延稅項負債	32	(5,886)
<b>Total Liabilities</b>	<b>負債總額</b>		<b>(100,293)</b>
Total identifiable net assets at fair value	按公允價值列賬的可識別淨資產總額		74,013
Less: Non-controlling interests	減：非控股權益		(3,701)
Add: Goodwill arising on acquisition	加：收購產生的商譽		147,957
Purchase consideration at fair value	按公允價值列賬的購買代價		218,269



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 38. BUSINESS COMBINATION (Continued)

The fair values of the trade receivables and other receivables as at the date of acquisition amounted to RMB18,489,000 and RMB1,655,000, respectively. The gross contractual amounts of trade receivables and other receivables were RMB25,762,000 and RMB1,655,000, respectively.

The Group incurred transaction costs of RMB8,580,000 for this acquisition. These transaction costs have been expensed and are included in administrative expenses in the consolidated statement of profit or loss.

As part of the purchase agreement, contingent consideration is payable, which is dependent on the amount of profit before tax of Qinghai Boqi during the 3-year period subsequent to the acquisition. The initial amount of contingent consideration recognised was RMB10,060,000 which was determined using the discounted cash flow model and is within Level 3 fair value measurement. The consideration is due for final measurement and payment to the former shareholders payable within the following 3 years. At the date of approval of these financial statements, no further significant changes to the consideration are expected.

Significant unobservable valuation inputs for the fair value measurement of the contingent consideration are as follows:

Projected profit before tax of Qinghai Boqi in 2022  
青海博奇2022年的預測除稅前溢利

Projected profit before tax of Qinghai Boqi in 2023  
青海博奇2023年的預測除稅前溢利

Discount rate  
貼現率

RMB21,000,000 to RMB50,000,000  
人民幣21,000,000元至  
人民幣50,000,000元

RMB22,000,000 to RMB50,000,000  
人民幣22,000,000元至  
人民幣50,000,000元

4.25%

#### 38. 業務合併(續)

貿易應收款項及其他應收款項於收購日期的公允價值分別為人民幣18,489,000元及人民幣1,655,000元。貿易應收款項及其他應收款項的總合約金額分別為人民幣25,762,000元及人民幣1,655,000元。

本集團就此項收購產生交易成本人民幣8,580,000元。該等交易成本經已支銷並計入綜合損益表的行政開支內。

作為購買協議的一部分，應視乎收購後3年期間內青海博奇的除稅前溢利金額來支付或然代價。所確認或然代價的初始金額為人民幣10,060,000元，乃使用折現現金流模式並在第3級公允價值計量內釐定。該代價應於往後3年內作最終計量並支付予前股東。於本財務報表批准日期，預計代價不會有進一步變動。

或然代價的公允價值計量的重大不可觀察輸入數據如下：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 38. BUSINESS COMBINATION (Continued)

A significant increase/(decrease) in the profit after tax of Qinghai Boqi would result in a significant increase/(decrease) in the fair value of the contingent consideration liability. A significant increase/(decrease) in the discount rate would result in a significant decrease/(increase) in the fair value of the contingent consideration liability.

An analysis of the cash flows in respect of the acquisition of a subsidiary is as follows:

## 38. 業務合併(續)

青海博奇的除稅後溢利大幅增加／(減少)，會導致或然代價負債的公允價值大幅上升／(下跌)。貼現率大幅上升／(下降)，會導致或然代價負債的公允價值大幅下跌／(上升)。

有關收購附屬公司的現金流量分析如下：

		Fair value recognised on acquisition 於收購時確認 的公允價值 RMB'000 人民幣千元
Cash consideration	現金代價	(6,210)
Cash and cash equivalents acquired	收購的現金及現金等價物	548
Net outflow of cash and cash equivalents included in cash flows from investing activities	計入投資活動所產生現金流量的現金及現金等價物流出淨額	(5,662)
Transaction costs of the acquisition included in cash flows from operating activities	計入經營活動所產生現金流量的收購的交易成本	(385)
		(6,047)

Since the acquisition, Qinghai Boqi contributed RMB11,963,000 to the Group's revenue and RMB3,346,000 to the consolidated profit after tax for the year ended 31 December 2021.

Had the acquisition taken place at the beginning of the year 2021, the revenue from continuing operations of the Group and the profit of the Group for the year would have been RMB2,162,141,000 and RMB364,549,000 respectively.

自收購以來，青海博奇於截至2021年12月31日止年度對本集團的收益貢獻人民幣11,963,000元，及對綜合除稅後溢利貢獻人民幣3,346,000元。

假設收購乃於2021年年初發生，則來自本集團持續經營業務的收益及本集團年內溢利應分別為人民幣2,162,141,000元及人民幣364,549,000元。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 38. BUSINESS COMBINATION (Continued)

On 2 December 2022, the Group entered into the further supplemental agreements to amend and supplement certain terms of the share transfer agreement signed in 2021. Pursuant to the further supplemental agreement entered into by the Group with, the total consideration for the entire equity interests of Qinghai Boqi shall be adjusted to RMB50,500,000 and former shareholder shall be released from the Profit Guarantee. Pursuant to the further supplemental agreement, the Group disposed 3% of the equity interests in Qinghai Boqi to former shareholder. Upon the completion, the Group hold 92% of the equity interests in Qinghai Boqi.

For further details, please refer to the note 6 and note 16 to the financial statements.

## 38. 業務合併(續)

於2022年12月2日，本集團訂立進一步補充協議，以修訂和補充於2021年簽訂的股份轉讓協議的若干條款。根據本集團訂立的進一步補充協議，青海博奇全部股權的總代價應調整至人民幣50,500,000元，而前股東應獲解除利潤保證。根據進一步補充協議，本集團已向前股東出售於青海博奇的3%股權。於完成後，本集團持有青海博奇的92%股權。

有關詳情，請參閱財務報表附註6及附註16。

## 39. NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

## (a) Major non-cash transactions

During the year, the Group had non-cash additions to right-of-use assets and lease liabilities of nil (2021: nil) and nil (2021: nil), respectively, in respect of lease arrangements for office.

## (b) Changes in liabilities arising from financing activities

## 39. 綜合現金流量表附註

## (a) 主要非現金交易

於年內，本集團就辦公室的租賃安排，而錄得的使用權資產及租賃負債的非現金增加分別為零(2021年：零)及零(2021年：零)。

## (b) 融資活動產生的負債變動

		<b>Borrowings</b> 借款 RMB'000 人民幣千元	<b>Lease liabilities</b> 租賃負債 RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	79,291	37,750
Acquisition a subsidiary	收購附屬公司	2,000	-
Changes from financing cash flows	融資現金流量變動	77,144	(1,722)
Interest expenses	利息開支	7,530	2,256
At 31 December 2021	於2021年12月31日	165,965	38,284
Changes from financing cash flows	融資現金流量變動	(3,436)	(1,722)
Interest expenses	利息開支	11,608	2,059
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>174,137</b>	<b>38,621</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

### 39. 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:

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Within operating activities	在經營活動內	(2,836)	(2,159)
Within financing activities	在融資活動內	(1,722)	(1,722)
		<b>(4,558)</b>	<b>(3,881)</b>

### 40. CONTINGENT LIABILITIES

As at 31 December 2022, the Group did not have any material contingent liabilities.

### 41. PLEDGE OF ASSETS

On 31 December 2022, Jinggangshan Boqi, a subsidiary of the Group, as the lessee, entered into a finance lease arrangement with CITIC Financial Leasing Co., Ltd. (“**CITIC Leasing**”). Beijing Boqi pledged all its equity interests in Jinggangshan Boqi and the service fee receivables under the Jinggangshan Boqi service concession agreement to CITIC Leasing to guarantee its liabilities under the Jinggangshan Boqi Finance Lease Agreement.

On 31 December 2022, Handan Boqi, a subsidiary of the Group, as the lessee, entered into a financial lease arrangement with Jiangsu Financial Leasing Co., Ltd. (“**Jiangsu Leasing**”). Beijing Boqi pledged its 70% equity interests in Handan Boqi and the service fee receivables under Handan Boqi service concession agreement to Jiangsu Leasing to guarantee its liabilities under the Handan Boqi Financial Leasing Agreement.

### 39. 綜合現金流量表附註(續)

#### (c) 租賃的現金流出總額

計入現金流量表內的租賃現金流出總額如下：

### 40. 或然負債

於2022年12月31日，本集團並無任何重大或然負債。

### 41. 資產抵押

於2022年12月31日，本集團的附屬公司井岡山博奇(作為承租人)，與中信金融租賃有限公司(「**中信租賃**」)訂立融資租賃安排。北京博奇將其持有的井岡山博奇的全部股權及井岡山博奇服務特許經營協議項下的應收服務費用質押予中信租賃，以擔保融資租賃協議項下的責任。

於2022年12月31日，本集團的附屬公司邯鄲博奇(作為承租人)，與江蘇金融租賃有限公司(「**江蘇租賃**」)訂立融資租賃安排。北京博奇將其持有的邯鄲博奇的70%股權及邯鄲博奇服務特許經營協議項下的應收服務費用質押予江蘇租賃，以擔保邯鄲博奇融資租賃協議項下的責任。

**Notes to the Consolidated Financial Statements (Continued)****綜合財務報表附註(續)**

For the year ended 31 December 2022  
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**41. PLEDGE OF ASSETS (Continued)**

On 31 December 2022, the Group's investment properties amounting to RMB8,240,000 were pledged for issuance of the borrowing from banks, and the details are included in notes 31 to the financial statements.

As at 31 December 2022, the bank deposits amounting to RMB83,103,000 were pledged for issuance of bills to the Group's suppliers, letters of credit and letters of guarantee relating to the EPC contracts and the O&M contracts signed with the customers, and bank deposits amounting to RMB15,163,000 were pledged for lawsuit freezes funds; and the details are included in note 27 to the financial statements.

**42. COMMITMENTS**

The Group had the following capital commitments at the end of the reporting period:

**41. 資產抵押(續)**

於2022年12月31日，本集團金額為人民幣8,240,000元的投資物業已抵押，作為銀行發出借款的擔保，有關詳情載於財務報表附註31。

於2022年12月31日，為數人民幣83,103,000元的銀行存款已抵押，作為向本集團供應商發出票據、有關與客戶簽訂的EPC合約及運維合約的信用狀及擔保函所作擔保，而為數人民幣15,163,000的銀行存款已就訴訟凍結基金作抵押，有關詳情載於財務報表附註27。

**42. 承擔**

本集團於報告期末有以下資本承擔：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Contracted, but not provided for:	已訂約但未撥備：		
Property, plant and machinery	物業、廠房及機器	19,656	17,209

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 43. RELATED PARTY TRANSACTIONS AND BALANCES 43. 關連方交易及結餘

## (a) Relationship

## (a) 關係

Name of the companies 公司名稱	Relationship with the Group 與本集團的關係
Yangxi Haibin Electric Power Development Co., Ltd. (“ <b>Yangxi Electric</b> ”) 陽西海濱電力發展有限公司(「陽西電力」)	Note (i) 附註(i)
Jijiantou Shouyang Thermal Power Company Limited (“ <b>Shouyang Power</b> ”) 冀建投壽陽熱電有限責任公司(「壽陽熱電」)	Note (i) 附註(i)
Chongqing Chuanwei Petrochemical Engineering Company Limited (“ <b>Chongqing Chuanwei</b> ”) 中國石化重慶川維化工有限公司(「重慶川維」)	Note (i) 附註(i)
Sinopec Shanghai Petrochemical Company Limited (“ <b>Sinopec Shanghai</b> ”) 中國石化上海石油化工股份有限公司(「中石化上海」)	Note (i) 附註(i)
Sinopec Ningbo Engineering Co., Ltd. (“ <b>Sinopec Ningbo</b> ”) 中國石化寧波工程有限公司(「中石化寧波」)	Note (i) 附註(i)
Sinopec Fifth Construction Co., Ltd. (“ <b>Sinopec Fifth Construction</b> ”) 中國石化第五建設有限公司(「中石化第五建設」)	Note (i) 附註(i)
China Boqi Environmental Engineering Co., Ltd. (“ <b>Boqi Environmental Engineering</b> ”) 中國博奇環保工程有限公司(「博奇環保工程」)	Note (i) 附註(i)
Richinfo Technology Co., Ltd. (“ <b>Richinfo</b> ”) 彩訊科技股份有限公司(「彩訊」)	Note (ii) 附註(ii)
Han Chuan Long Yuan 漢川龍源	Note (iii) 附註(iii)
Beijing Jiankun Nenghuan Technology Co., Ltd. (“ <b>Jiankun Nenghuan</b> ”) 北京健坤能環科技有限公司(「健坤能環」)	Note (iv) 附註(iv)
Sinopec Group Northwest Petroleum Branch (“ <b>Sinopec Northwest</b> ”) 中國石油化工股份有限公司東北油田分公司(「中石化東北」)	Note (i) 附註(i)
Hainan Boyuan Zhongying Enterprise Management Partnership (Limited Partnership) (“ <b>Boyuan Zhongying</b> ”) 海南博源眾盈企業管理合夥企業(有限合夥)(「博源眾盈」)	Note (iv) 附註(iv)

Notes:

- (i) A company controlled by a shareholder of the Company who has the power to exercise significant influence over the Company.
- (ii) The Chief Executive Officer of the Company, Mr. Zeng, has the power to exercise significant influence over this company.

附註：

- (i) 由可對本公司行使重大影響力的本公司股東所控制的公司。
- (ii) 本公司行政總裁曾先生有權對該公司行使重大影響力。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

#### (a) Relationship (Continued)

Notes: (Continued)

- (iii) An associate of the Group.
- (iv) A company controlled by a key management personnel of the company.

#### (b) Amounts due from related parties

			2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
		Note 附註		
Yangxi Electric	陽西電力	(i)	264,632	243,253
Shouyang Power	壽陽熱電		76,683	39,544
Chongqing Chuanwei	重慶川維		24,752	28,212
Sinopec Ningbo	中石化寧波		2,397	2,398
Boyuan Zhongying	博源眾盈		1,447	-
Sinopec Shanghai	中石化上海		-	1,764
China Petrochemical Northwest	中石化東北		714	-
Han Chuan Long Yuan	漢川龍源		36	1,228
Best Environmental Solutions	Best Environmental Solutions		9	-
			<b>370,670</b>	<b>316,399</b>
Analysed for reporting purposes as:	供呈報用途作以下 分析：			
Current assets	流動資產		232,545	177,547
Non-current assets	非流動資產	(i)	138,125	138,852
			<b>370,670</b>	<b>316,399</b>
Trade balances	貿易結餘		230,097	173,054
Non-trade balances	非貿易結餘		140,573	143,345
			<b>370,670</b>	<b>316,399</b>

#### (a) 關係(續)

附註：(續)

- (iii) 本公司的聯營公司。
- (iv) 由本公司主要管理人員控制的公司。

#### (b) 應收關連方款項

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

#### 43. 關連方交易及結餘(續)

##### (b) Amounts due from related parties (Continued)

##### (b) 應收關連方款項(續)

Note:

附註：

- (i) Included in this amount is a non-trade nature receivable of RMB138,154,000 (2021: RMB138,852,000). On 28 August 2017, the Group entered into a revised management service agreement with Guangdong Huaxia Electric Development Co., Ltd., the parent of Yangxi Electric, and Yangxi Electric to extend the O&M service term from 1 January 2017 to 31 December 2017 to a term from 1 January 2017 to 31 December 2025 and require a deposit of RMB139,690,000, which was paid by the Group on 31 December 2017. The deposit carries interest at long-term borrowing rates of the Group, which is unsecured and repayable at the end of the O&M service term.

- (i) 此金額包括非貿易性質的應收款項人民幣138,154,000元(2021年：人民幣138,852,000元)。於2017年8月28日，本集團與陽西電力的母公司廣東華廈電力發展有限公司及陽西電力訂立經修訂管理服務協議，將運維服務期限由2017年1月1日至2017年12月31日延長至2017年1月1日至2025年12月31日及需支付按金人民幣139,690,000元，有關按金已由本集團於2017年12月31日支付。該按金按本集團的長期借款利率計算、無抵押，及須於運維服務期未償還。

The balances other than the deposit paid to Yangxi Electric mention above are all unsecured, interest-free and repayable on demand.

上述結餘(除支付予陽西電力的按金外)均為無抵押、免息及須於要求時償還。

The Group generally grants a credit period of 90 days to its related parties. An aging analysis of the amounts due from related parties-trade portion based on the invoice date, is as follows:

本集團一般向其關連方授予90天的信貸期。應收關連方款項的貿易部分按發票日期的賬齡分析如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
1 to 90 days	1至90天	124,985	104,873
91 to 180 days	91至180天	80,109	8,582
181 to 365 days	181至365天	11,936	57,835
1 to 2 years	1至2年	13,067	-
2 to 3 years	2至3年	-	1,764
Over 3 years	3年以上	-	-
		<b>230,097</b>	<b>173,054</b>



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

#### (b) Amounts due from related parties (Continued)

Movement in both lifetime ECL and 12-month ECL that has been recognised for amounts due from related parties for the year ended 31 December 2022 is as follows:

		RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	10,231
Reversal of impairment of amounts due from related parties	應收關連方款項減值撥回	(1,735)
At 31 December 2021 and at 1 January 2022	於2021年12月31日及 2022年1月1日	8,496
Impairment of amounts due from related parties	應收關連方款項減值	926
<b>At 31 December 2022</b>	<b>於2022年12月31日</b>	<b>9,422</b>

For non-trade balance, an impairment analysis is performed at each reporting date by considering expected credit losses, which are estimated by applying a loss rate approach with reference to the historical loss record of the Group. The loss rate is adjusted to reflect the current conditions and forecasts of future economic conditions, as appropriate. The loss rate applied as at 31 December 2022 was 4.80% (2021: 4.61%).

For trade balance, an impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns. 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.

#### (b) 應收關連方款項(續)

截至2022年12月31日止年度，已確認的應收關連方款項全期預期信貸虧損及12個月預期信貸虧損的變動如下：

就非貿易結餘而言，於每個報告日期均透過考慮預期信貸虧損以進行減值分析，而預期信貸虧損乃應用參考本集團過往虧損記錄的虧損率方法作估計。虧損率乃經調整，以反映現時狀況及對未來經濟狀況的預測(如適用)。於2022年12月31日應用的虧損率為4.80%(2021年：4.61%)。

就貿易結餘而言，於各報告日期採用撥備矩陣進行減值分析，以計量預期信貸虧損。撥備率乃基於具有類似虧損模式的多個客戶分部組別的逾期日數釐定。該計算反映概率加權結果、貨幣時值及於報告日期可得的有關過往事件、當前狀況及未來經濟狀況預測的合理及可靠資料。

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

## (b) Amounts due from related parties (Continued)

Set out below is the information about the credit risk exposure on the Group's amount due from related parties – trade portion using a provision matrix:

		Ageing				Total
		賬齡				
		Less than 1 year 少於1年	1 to 2 years 1至2年	2 to 3 years 2至3年	Over 3 years 3年以上	
<b>As at 31 December 2022</b> 於2022年12月31日						
Expected credit loss rate	預期信貸虧損率	0.78%	4.43%	–	–	–
Gross carrying amount	總賬面值	218,731	13,672	–	–	232,403
(RMB'000)	(人民幣千元)					
Expected credit losses	預期信貸虧損	1,701	605	–	–	2,306
(RMB'000)	(人民幣千元)					
<b>As at 31 December 2021</b> 於2021年12月31日						
		Less than 1 year 少於1年	1 to 2 years 1至2年	2 to 3 years 2至3年	Over 3 years 3年以上	Total 總計
Expected credit loss rate	預期信貸虧損率	0.74%	–	14.67%	–	–
Gross carrying amount	總賬面值	172,561	–	2,066	–	174,627
(RMB'000)	(人民幣千元)					
Expected credit losses	預期信貸虧損	1,270	–	303	–	1,573
(RMB'000)	(人民幣千元)					

## 43. 關連方交易及結餘(續)

## (b) 應收關連方款項(續)

下表載列使用撥備矩陣計算本集團應收關連方款項的貿易部分的信貸風險的資料：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

#### 43. 關連方交易及結餘(續)

##### (c) Amounts due to related parties

##### (c) 應付關連方款項

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Sinopec Fifth Construction	中石化第五建設	6,848	7,475
Boqi Environmental Engineering	博奇環保工程	176	176
Richinfo	彩訊	225	-
Jiankun Nenghuan	健坤能環	-	8,050
		<b>7,249</b>	<b>15,701</b>

The credit period granted by the related parties ranges from 30 to 90 days. An aging analysis of amounts due to related parties – trade nature is as follows:

關連方授予的信貸期介乎30至90天。應付關連方款項(貿易性質)的賬齡分析如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
1 to 90 days	1至90天	225	12,606
91 to 180 days	91至180天	-	-
181 to 365 days	181至365天	299	1,445
1 to 2 years	1至2年	6,001	1,474
2 to 3 years	2至3年	548	176
over 3 years	3年以上	176	-
		<b>7,249</b>	<b>15,701</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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### 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued) 43. 關連方交易及結餘(續)

## (d) Related party transactions

## (d) 關連方交易

		Notes	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Yangxi Electric	陽西電力	(i)		
– O&M service	– 運維服務		178,143	178,590
– Water and electricity, labour, spare parts and miscellaneous items charged by Yangxi Electric	– 陽西電力收取的水電、勞工、備件及雜項費用		60,192	59,815
– Interest income	– 利息收入		5,406	5,846
Shouyang Power	壽陽熱電	(ii)		
– EPC service	– EPC服務		93,546	64,156
Chongqing Chuanwei	重慶川維	(iii)		
– EPC service	– EPC服務		5,947	44,949
Jiankun Nenghuan	健坤能環	(iv)		
– Purchase of consulting service	– 購買諮詢服務		(4,025)	8,050
China Petrochemical Northwest	中石化東北	(v)		
– Water treatment service	– 水處理服務		837	–
Sinopec Fifth Construction	中石化第五建設	(vi)		
– Purchase of construction service	– 購買建造服務		200	5,032
– Purchase of equipment	– 購買設備		–	457
Richinfo	彩訊	(vii)		
– Purchase of intangible assets	– 購買無形資產		345	–
– Purchase of service	– 購買服務		255	–

Notes:

(i) In December 2016, the Group entered into a management service agreement, pursuant to which the Group provided O&M service to Yangxi Electric, and RMB178,143,000 was recognised as revenue during the year ended 31 December 2022 (2021: RMB178,590,000). The Group also purchases water and electricity, labour, spare parts and miscellaneous items from Yangxi Electric to support the O&M service. During the year ended 31 December 2022, the Group purchased RMB108,345,000 (2021: RMB59,815,000) of water and electricity, labour, spare parts and miscellaneous items from Yangxi Electric.

附註：

(i) 於2016年12月，本集團訂立管理服務協議，據此，本集團向陽西電力提供運維服務，其中截至2022年12月31日止年度確認收入為人民幣178,143,000元(2021年：178,590,000元)。本集團亦自陽西電力購買水電、勞工、備件及雜項項目，以支持運維服務。截至2022年12月31日止年度，本集團自陽西電力購買水電、勞工、備件及雜項項目人民幣108,345,000元(2021年：59,815,000元)。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 43. RELATED PARTY TRANSACTIONS AND BALANCES (Continued)

## (d) Related party transactions (Continued)

Notes: (Continued)

- (ii) In December 2015, the Group entered into an EPC service contract with Shouyang Power for a total contract amount of RMB287,560,000, of which RMB93,546,000 was recognised as revenue during the year ended 31 December 2022 (2021: RMB64,156,000).
- (iii) In September 2018, the Group entered into an EPC service contract with Chongqing Chuanwei for a total contract amount of RMB205,880,000, of which RMB5,947,000 was recognised as revenue during the year ended 31 December 2022 (2021: RMB44,949,000).
- (iv) In 2021, the Group purchased consulting service from Jiankun Nenghuan for certain consulting contract with a total contract amount of RMB8,050,000, of which RMB4,025,000 was paid in January 2022. In July 2022, due to the revision of total consideration of the business acquisition done in 2021, Jiankun Nenghuan issued a debt exemption letter to the Group to waived the remaining unpaid consulting service fees.
- (v) In 2021, the Group entered into a water treatment service contract with China Petrochemical Northwest, the service fee is calculated by actual water treatment volume multiplied by the unit price, of which RMB837,000 was recognised as revenue during the year ended 31 December 2022 (2021: nil).
- (vi) During the year 2022, the Group received construction service from Sinopec Fifth Construction for certain EPC contract of RMB200,000. (2021: RMB5,032,000 for purchasing construction service, RMB457,000 for purchasing equipment).
- (vii) During the year 2022, the Group purchased intangible assets of RMB345,000 and received certain system maintenance and migration service of RMB255,000 from Richinfo, respectively (2021: nil).

## (e) Compensation of key management personnel

Key management compensation is detailed in note 9 to the financial statements.

## 43. 關連方交易及結餘(續)

## (d) 關連方交易(續)

附註:(續)

- (ii) 於2015年12月,本集團與壽陽熱電訂立EPC服務合約,總合約金額為人民幣287,560,000元,其中截至2022年12月31日止年度確認收入人民幣93,546,000元(2021年:人民幣64,156,000元)。
- (iii) 於2018年9月,本集團與重慶川維訂立EPC服務合約,總合約金額為人民幣205,880,000元,其中截至2022年12月31日止年度確認收入人民幣5,947,000元(2021年:人民幣44,949,000元)。
- (iv) 於2021年,本集團因若干總合約金額為人民幣8,050,000元,其中人民幣4,025,000元已於2022年1月支付。於2022年7月,由於業務收購的總代價已於2021年完成修訂,健坤能環向本集團發出債務豁免函件,豁免餘下未付的諮詢服務費。
- (v) 於2021年,本集團與中石化東北訂立水處理合約,服務費用乃根據實際水處理量乘以單位價格計算,其中截至2022年12月31日止年度確認收入人民幣837,000元(2021年:無)。
- (vi) 於2022年,本集團就若干EPC合同接受中石化第五建設的建造服務人民幣200,000元(2021年:購買建造服務人民幣5,032,000元及購買設備人民幣457,000元)。
- (vii) 於2022年,本集團分別向彩訊購買無形資產人民幣345,000元,並接受彩訊的若干系統維護及搬遷服務人民幣255,000元(2021年:無)。

## (e) 主要管理人員薪酬

主要管理人員薪酬詳情載於財務報表附註9。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 44. 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:

2022

## Financial assets

## 44. 按類別劃分的金融工具

於報告期末，各類金融工具的賬面值如下：

2022年

## 金融資產

	Financial assets at fair value through profit or loss 按公允價值計入損益的金融資產	Financial assets at fair value through other comprehensive income 按公允價值計入其他全面收益的金融資產			Total 總計
		Designated as such upon initial recognition 於初始確認時指定為上述類別	Debt investments 債務投資	Equity investments 股權投資	
	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元
Financial assets at fair value through profit or loss	按公允價值計入損益的金融資產	24,661	-	-	24,661
Equity investments at fair value through other comprehensive income	按公允價值計入其他全面收益的股權投資	-	-	5,166	5,166
Debt investments at fair value through other comprehensive income	按公允價值計入其他全面收益的債務投資	-	287,538	-	287,538
Trade receivables	貿易應收款項	-	-	872,121	872,121
Receivable under service concession arrangement	服務特許經營安排下的應收款項	-	-	541,767	541,767
Amounts due from related parties	應收關連方款項	-	-	370,670	370,670
Financial assets included in prepayments, deposits and other receivables	計入預付款項、按金及其他應收款項的金融資產	-	-	114,951	114,951
Long-term receivable	長期應收款項	-	-	49,254	49,254
Pledged time deposits and bank balances	已抵押定期存款及銀行結餘	-	-	98,266	98,266
Cash and cash equivalents	現金及現金等價物	-	-	402,488	402,488
		24,661	287,538	5,166	2,449,517
					2,766,882

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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44. FINANCIAL INSTRUMENTS BY CATEGORY 44. 按類別劃分的金融工具(續)  
(Continued)

2022 (Continued)

**Financial liabilities**

2022年(續)

**金融負債**

		Financial liabilities at fair value through profit or loss 按公允價值計入損益的金融負債 RMB'000 人民幣千元	Financial liabilities at amortised cost 按攤銷成本計量的金融負債 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
Trade and bills payables	貿易應付款項及應付票據	–	1,134,240	1,134,240
Financial liabilities included in other payables, deposits received and accrued expenses	計入其他應付款項、已收按金及應計開支的金融負債	–	154,701	154,701
Interest-bearing bank and other borrowings	計息銀行及其他借款	–	174,137	174,137
Lease liabilities	租賃負債	–	38,621	38,621
Amounts due to related parties	應付關連方款項	–	7,249	7,249
		–	1,508,948	1,508,948

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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## 44. FINANCIAL INSTRUMENTS BY CATEGORY (Continued)

## 44. 按類別劃分的金融工具(續)

2021

2021年

## Financial assets

## 金融資產

		Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income	Debt investments	Financial assets amortised cost	Total
	按公允價值計入損益的金融資產	按公允價值計入其他全面收益的金融資產	債務投資	攤銷成本	總計	
	Designated as such upon initial recognition	於初始確認時指定為上述類別				
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	
	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	
Financial assets at fair value through profit or loss	按公允價值計入損益的金融資產	178,771	-	-	-	178,771
Debt investments at fair value through other comprehensive income	按公允價值計入其他全面收益的債務投資	-	284,168	-	-	284,168
Trade receivables	貿易應收款項	-	-	885,420	-	885,420
Receivable under service concession arrangement	服務特許經營安排下的應收款項	-	-	341,556	-	341,556
Amounts due from related parties	應收關連方款項	-	-	316,399	-	316,399
Financial assets included in prepayments, deposits and other receivables	計入預付款項、按金及其他應收款項的金融資產	-	-	40,930	-	40,930
Long-term receivable	長期應收款項	-	-	45,548	-	45,548
Pledged time deposits and bank balances	已抵押定期存款及銀行結餘	-	-	142,009	-	142,009
Cash and cash equivalents	現金及現金等價物	-	-	342,958	-	342,958
		178,771	284,168	2,114,820	-	2,577,759



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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#### 44. FINANCIAL INSTRUMENTS BY CATEGORY 44. 按類別劃分的金融工具(續)

(Continued)

2021 (Continued)

2021年(續)

**Financial liabilities****金融負債**

		Financial liabilities at fair value through profit or loss 按公允價值計入損益的金融負債 RMB'000 人民幣千元	Financial liabilities at amortised cost 按攤銷成本計量的金融負債 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
Trade and bills payables	貿易應付款項及應付票據	-	1,136,336	1,136,336
Financial liabilities included in other payables, deposits received and accrued expenses	計入其他應付款項、已收按金及應計開支的金融負債	-	227,496	227,496
Interest-bearing bank and other borrowings	計息銀行及其他借款	-	165,965	165,965
Lease liabilities	租賃負債	-	38,284	38,284
Contingent consideration	或然負債	10,060	-	10,060
Long-term payable	長期應付款項	-	99,420	99,420
Amounts due to related parties	應付關連方款項	-	15,701	15,701
		10,060	1,683,202	1,693,262

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 45. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

The carrying amounts and fair values of the Group's financial instruments, other than those with carrying amounts that reasonably approximate to fair values, are as follows:

## 45. 金融工具之公允價值及公允價值等級

本集團的金融工具(其賬面值與其公允價值相若的金融工具除外)之賬面值及公允價值如下:

		Carrying amounts		Fair values	
		賬面值		公允價值	
		2022	2021	2022	2021
		2022年	2021年	2022年	2021年
		RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元
<b>Financial assets</b>	<b>金融資產</b>				
Financial assets at fair value through profit or loss	按公允價值計入損益的金融資產	24,661	178,771	24,661	178,771
Equity investments designated at fair value through other comprehensive income	指定為按公允價值計入其他全面收益的股權投資	5,166	–	5,166	–
Debt investments at fair value through other comprehensive income	按公允價值計入其他全面收益的債務投資	287,538	284,168	287,538	284,168
Amounts due from related parties – non-current	應收關連方款項 – 非即期	138,125	138,852	138,125	138,852
Receivable under service concession arrangement – non-current	服務特許經營安排下的應收款項 – 非即期	492,005	316,691	492,005	316,691
Long-term receivable	長期應收款項	49,254	45,548	49,254	45,548
		<b>996,749</b>	964,030	<b>996,749</b>	964,030
<b>Financial liabilities</b>	<b>金融負債</b>				
Long-term payable	長期應付款項	–	99,420	–	101,175
Interest-bearing bank and other borrowings	計息銀行及其他借款	82,029	83,399	81,267	82,593
		<b>82,029</b>	182,819	<b>81,267</b>	183,768

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 45. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (Continued)

Management has assessed that the fair values of cash and cash equivalents, the current portion of pledged time deposits and bank balances, trade receivables, current portion of amounts due from related parties, current portion of receivables under service concession arrangement, financial assets included in prepayments, deposits and other receivables, trade and bills payables, financial liabilities included in other payables, deposits received and accrued expenses, current portion of amounts due to related parties and short-term interest-bearing bank and other borrowings approximate to their carrying amounts largely due to the short-term maturities of these instruments.

The Group's finance department headed by the finance manager is responsible for determining the policies and procedures for the fair value measurement of financial instruments. The corporate finance team reports directly to management. At each reporting date, the corporate finance team analyses the movements in the values of financial instruments and determines the major inputs applied in the valuation. The valuation is reviewed and approved by management. The valuation process and results are discussed with management twice a year for interim and annual financial reporting.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values:

#### 45. 金融工具之公允價值及公允價值等級(續)

管理層已評估現金及現金等價物、已抵押定期存款及銀行結餘的即期部分、貿易應收款項、應收關連方款項的即期部分、服務特許經營安排項下應收款項的即期部分、計入預付款項、按金及其他應收款項的金融資產、貿易應付款項及應付票據、計入其他應付款項、已收按金及應計開支的金融負債、應付關連方款項的即期部分以及短期計息銀行及其他借款之公允價值與其賬面值相若，主要因為該等工具均於短期內到期。

以本集團財務經理為首的財務部負責釐定金融工具公允價值計量的政策及程序。企業融資團隊直接向管理層匯報。於各報告日期，企業融資團隊分析金融工具的價值變動並釐定估值所採用的主要輸入值。估值由管理層審閱及批准。管理層每年兩次討論估值過程及結果以進行中期及年度財務呈報。

金融資產及負債的公允價值按當前交易(強制或清算出售除外)中雙方自願交換工具的金額入賬。以下為用於估計公允價值的方法及假設：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 45. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (Continued)

The fair values of long-term receivable, the non-current portion of amounts due from related parties and receivable under service concession arrangement, interest-bearing bank and other borrowings, other unlisted investment designated at fair value through profit or loss have been calculated by discounting the expected future cash flows using rates currently available for instruments with similar terms, credit risk and remaining maturities. The changes in fair value as a result of the Group's own non-performance risk for interest-bearing bank and other borrowings as at 31 December 2022 were assessed to be insignificant. For these assets and liabilities for which fair values are disclosed, the fair value hierarchy is level 2.

The fair values of listed equity investments are based on quoted market prices. The fair values of unlisted equity investments designated at fair value through other comprehensive income have been estimated using the most recent transaction price method with reference to the recent transactions at 31 December 2022.

#### 45. 金融工具之公允價值及公允價值等級(續)

長期應收款項、應收關連方款項及服務特許經營安排項下的應收款項的非即期部分、計息銀行及其他借款以及指定為按公允價值計入損益的其他非上市投資的公允價值，乃使用具類似條款、信貸風險及餘下還款期限的工具現時之利率將預計未來現金流量折現而計算。有關本集團於2022年12月31日的計息銀行及其他借款之不履約風險所產生的公允價值變動被評定為並不重大。就該等披露公允價值的資產及負債而言，公允價值等級為第二級。

上市股權投資的公允價值乃根據市場報價而釐定。指定為按公允價宜計入其他全面收益的非上市股權投資的公允價值乃參考截至2022年12月31日的最近交易，使用最近期交易價格的方法作估計。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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#### 45. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (Continued)

##### Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Assets/liabilities measured at fair value:

		Fair value	Fair value hierarchy	Valuation technique and key input	Significant unobservable inputs	
		公允價值	公允價值等級	估值技巧及主要輸入數據	重大不可觀察輸入數據	
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元			
Financial assets at fair value through profit or loss (note 25)	按公允價值計入損益的金融資產 (附註25)	21,607	178,771	Level 1	Quoted bid prices in an active market.	N/A
- Listed investment	- 上市投資			第一級	活躍市場所報的買入價。	不適用
Financial assets at fair value through profit or loss (note 25)	按公允價值計入損益的金融資產 (附註25)	3,054	-	Level 2	Discounted cash flow based on the future cash flow of the financial assets using a rate from financial institution.	N/A
- Unlisted investment	- 非上市投資			第二級	根據金融資產的未來現金流量，使用來自金融機構的利率貼現的現金流量。	不適用
Debt instrument at fair value through other comprehensive income (note 26)	按公允價值計入其他全面收益的債務工具 (附註26)	287,538	284,168	Level 2	Discounted cash flow based on the future cash flow of the debt instrument using a rate from financial institution.	N/A
				第二級	根據債務工具的未來現金流量，使用來自金融機構的利率貼現的現金流量。	不適用

#### 45. 金融工具之公允價值及公允價值等級 (續)

##### 公允價值等級

下表列示本集團金融工具之公允價值計量等級：

按公允價值計量的資產／負債：

## Notes to the Consolidated Financial Statements (Continued)

綜合財務報表附註(續)

For the year ended 31 December 2022  
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## 45. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS (Continued)

Fair value hierarchy (Continued)

## 45. 金融工具之公允價值及公允價值等級(續)

公允價值等級(續)

		Fair value		Fair value hierarchy	Valuation technique and key input	Significant unobservable inputs 重大不可觀察輸入數據
		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元			
Contingent consideration	或然代價	-	10,060	Level 3 第三級	Discounted cash flow method was used to capture the present value of the expected future economic benefits that will flow out of the Group arising from the contingent consideration arrangement in relation to the following tranche transaction of Qinghai Boqi acquisition, based on an appropriate discount rate. 使用貼現現金流方法，以根據合適的貼現率來捕捉預期因有關青海博奇收購的下一批交易的或然代價安排而導致將從本集團流出的未來經濟利益的現值。	Projected profit before tax and discount rate 預測除稅前溢利及貼現率
Equity investments designated at fair value through other comprehensive income	指定為按公允價值計入其他全面收益的股權投資	5,166	-	Level 3 第三級	Most recent transaction price method with reference to the recent transactions. 參考近期交易的最近期交易價格方法。	N/A 不適用

During the year, there were no transfers of fair value measurements between Level 1, Level 2 and Level 3 for both financial assets and financial liabilities (2021: nil).

於年內，第一級與第二級之間並無公允價值計量的轉撥，而金融資產及金融負債均無轉入第三級或從第三級轉出(2021年：無)。

## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's major financial instruments include equity and debt investments, trade receivables, other receivables, receivable under service concession arrangement, long-term receivable, amounts due from related parties, pledged time deposits and bank balances, cash and cash equivalents, trade and bills payables, other payables, amounts due to related parties, lease liabilities, contingent consideration, interest bearing bank and other borrowings and long-term payable. Details of the financial instruments are disclosed in respective notes. The risks associated with these financial instruments include market risk (interest rate risk, currency risk and other price risk), credit risk and liquidity risk. The policies on how to mitigate these risks are set out below. The Directors manage and monitor these exposures to ensure appropriate measures are implemented on a timely and effective manner.

##### Interest rate risk

The Group is exposed to fair value interest rate risk in relation to fixed-rate bank and other borrowings. The Group is also exposed to cash flow interest rate risk in relation to variable-rate bank and other borrowings, pledged time deposits and bank balances. It is the Group's policy to keep its bank and other borrowings, pledged time deposits and bank balances at floating rate of interests so as to minimise the fair value interest rate risk. The Group's cash flow interest rate risk is mainly concentrated on the fluctuation of the Benchmark Lending Rate of the People's Bank of China.

The Group currently does not have an interest rate hedging policy. However, the Directors monitors interest rate exposure and will consider hedging significant interest rate exposure should the need arise.

#### 46. 金融風險管理目標及政策

本集團的主要金融工具包括股權及債務投資、貿易應收款項、其他應收款項、服務特許經營安排下的應收款項、長期應收款項、應收關連方款項、已抵押定期存款及銀行結餘、現金及現金等價物、貿易應付款項及應付票據、其他應付款項、應付關連方款項、租賃負債、或然代價、計息銀行及其他借款以及長期應付款項。該等金融工具的詳情於相關附註披露。與該等金融工具有關的風險包括市場風險(利率風險、貨幣風險及其他價格風險)、信貸風險及流動資金風險。有關如何降低該等風險的政策載列於下文。董事管理及監控該等風險，以確保及時有效地實施適當措施。

##### 利率風險

本集團就定息銀行及其他借款面臨公允價值利率風險。本集團亦就浮息銀行及其他借款、已抵押定期存款及銀行結餘面臨現金流量利率風險。本集團的政策為將其銀行及其他借款、已抵押定期存款及銀行結餘維持在浮息利率，以盡量降低公允價值利率風險。本集團的現金流量利率風險主要集中於中國人民銀行基準貸款利率波動。

本集團目前並無利率對沖政策。然而，董事監控利率風險及在需要時將考慮對沖重大利率風險。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

##### Interest rate risk (Continued)

The sensitivity analysis below has been determined based on the exposure to interest rates for cash and cash equivalents, pledged time deposits and bank balances and variable rate bank and other borrowings at the end of each reporting period and assumed that the amount of liabilities outstanding at the end of each reporting period was outstanding for the whole year. A 50 basis point increase or decrease is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

If interest rates had been 50 basis points higher/lower and all other variables were held constant, the Group's post-tax profit for the year ended 31 December 2022 would have increased/decreased by RMB1,388,000 (2021: RMB1,356,000), respectively. This is mainly attributable to the Group's exposure to interest rates on its cash and cash equivalents and pledged time deposits and bank balances and partially offset by the impact from bank and other borrowings.

##### Currency risk

The Group has bank balances, other receivables, trade receivables and other payables which are denominated in foreign currencies, mainly HKD, USD and EUR, as at 31 December 2022 and 2021.

The sensitivity analysis below has been determined based on the exposure to foreign currency rates and includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 5% change in foreign currency rates. A 5% increase or decrease is used when reporting foreign currency rate risk internally to key management personnel and represents the Directors' assessment of the reasonably possible change in foreign currency rates.

#### 46. 金融風險管理目標及政策(續)

##### 利率風險(續)

下文敏感度分析乃根據各報告期末的現金及現金等價物、已抵押定期存款及銀行結餘及浮息銀行及其他借款的利率風險釐定，並假設於各報告期末尚未償還的負債於整個年度尚未償還。向主要管理人員內部匯報利率風險時，利用50個基數點的增減，代表管理層對利率的合理可能變動作出的評估。

倘利率增／減50個基數點且所有其他可變因素維持不變，本集團截至2022年12月31日止年度的除稅後溢利將分別增加／減少人民幣1,388,000元(2021年：人民幣1,356,000元)。此乃主要由於本集團的現金及現金等價物及已抵押定期存款及銀行結餘面對利率風險，且部分被銀行借款的影響所抵銷。

##### 貨幣風險

於2022年及2021年12月31日，本集團擁有以外幣(主要為港元、美元及歐元)計值的銀行結餘、其他應收款項、貿易應收款項及其他應收款項。

以下敏感度分析乃根據面臨的外匯匯率而釐定，且僅包括以外幣計值之尚未償還貨幣項目並就外幣匯率變動5%調整期末換算。向主要管理人員內部匯報外匯匯率風險時，利用5%的增減，代表董事對外匯匯率的合理可能變動作出的評估。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

##### Foreign currency sensitivity analysis

If RMB had been appreciated/depreciated 5% against the foreign currency and all other variables were held constant, the Group's profit before tax for the year ended 31 December 2022 would have decreased/increased by RMB1,728,000 (2021: RMB409,000). This is mainly attributable to the Group's exposure to the foreign currency bank balance as at 31 December 2022 and 2021.

#### 46. 金融風險管理目標及政策(續)

##### 外幣敏感度分析

倘人民幣兌外幣升值/貶值5%且所有其他可變因素維持不變，本集團截至2022年12月31日止年度的除稅前溢利將減少/增加人民幣1,728,000元(2021年：人民幣409,000元)。此乃主要由於本集團面臨於2022年及2021年12月31日外幣銀行結餘的匯率風險。

		Increase/ (decrease) in RMB exchange rate % 人民幣匯率 上升/ (下跌)%	Increase/(decrease) in profit before tax 除稅前虧損 增加/(減少)	
				2022 2022年 RMB'000 人民幣千元
				2021 2021年 RMB'000 人民幣千元
If RMB weakens against the USD	倘人民幣兌美元貶值	(5)	132	621
If RMB strengthens against the USD	倘人民幣兌美元升值	5	(132)	(621)
If RMB weakens against the HKD	倘人民幣兌港元貶值	(5)	1,462	(343)
If RMB strengthens against the HKD	倘人民幣兌港元升值	5	(1,462)	343
If RMB weakens against the EUR	倘人民幣兌歐元貶值	(5)	135	131
If RMB strengthens against the EUR	倘人民幣兌歐元升值	5	(135)	(131)

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

##### Other price risk

The Group is exposed to equity price risk through its investments in equity securities measured at fair value through profit or loss. For equity securities measured at fair value through profit or loss quoted in The Stock Exchange of Hong Kong Limited, the Directors manage this exposure by maintaining a portfolio of investments with different risks. The sensitivity analysis has been determined based on the exposure to equity price risk at the reporting date. If the equity price had been 20% higher/lower, the post-tax profit for the year ended 31 December 2022 would increase/decrease by RMB4,322,000 (2021: RMB35,754,000) as a result of the changes in fair value of equity instrument at fair value through profit or loss.

##### Credit risk and impairment assessment

Credit risk refers to the risk that the Group's counterparties default on their contractual obligations resulting in financial losses to the Group. The Group's credit risk exposures are primarily attributable to trade receivables, contract assets, pledged time deposits and bank balances, amounts due from related parties, other receivables, receivables under service concession arrangement and debt instruments at fair value through other comprehensive income. The Group does not hold any collateral or other credit enhancements to cover its credit risks associated with its financial assets.

#### 46. 金融風險管理目標及政策(續)

##### 其他價格風險

本集團因投資於按公允價值計入損益計量的股本證券而面臨股本價格風險。就在香港聯合交易所有限公司報價的按公允價值計入損益計量的股本證券而言，董事透過維持不同風險狀況的投資組合來管理此風險。敏感度分析乃根據於報告日期所面臨的股本價格風險釐定。倘股本價格上升／下跌20%，則按公允價值計入損益的股本工具之公允價值變動會導致截至2022年12月31日止年度的除稅後溢利增加／減少人民幣4,322,000元(2021年：人民幣35,754,000元)。

##### 信貸風險及減值評估

信貸風險指本集團的對手方就其合約責任違約而導致本集團財務損失的風險。本集團面臨的信貸風險主要來自貿易應收款項、合約資產、已抵押定期存款及銀行結餘、應收關連方款項、其他應收款項、服務特許權安排下的應收款項以及按公允價值計入其他全面收益的債務工具而產生。本集團並無持有任何抵押品或其他信貸增益以抵銷其與金融資產相關的信貸風險。



## Notes to the Consolidated Financial Statements (Continued)

### 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

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

The Group performed impairment assessment for financial assets and other items under ECL model. Before accepting any new customer, the Group uses an internal credit scoring system to assess the potential customer's credit quality and defines credit limits by customer. Limits and scoring attributed to customers are reviewed twice a year. Other monitoring procedures are in place to ensure that follow-up action is taken to recover overdue debts. The Group only accepts bills issued or guaranteed by reputable PRC banks if trade receivables are settled by bills and therefore the management of the Group considers the credit risk arising from the endorsed or discounted bills is insignificant. In this regard, the Directors consider that the Group's credit risk is significantly reduced. The Group is concentrated on one single counterparty for the receivables under concession arrangement. The Group has concentration of credit risk as 39% (2021: 34%) of the total trade receivables was due from the Group's five largest customers. In order to minimise the credit risk, the management of the Group has delegated a team responsible for determination of credit limits and credit approvals. The Group performs impairment assessment under ECL model on these balances and the applicable loss rates are disclosed in notes 21, 22, 23, and 43. The credit risk of contract assets is assessed based on the provision matrix within lifetime ECL. For other receivables, the Directors make periodic individual assessment on the recoverability of other receivables based on historical settlement records, past experience, and also quantitative and qualitative information that is reasonable and supportive forward-looking information. Movements of ECL for the respective items were disclosed in the respective notes to the consolidated financial statements.

#### 46. 金融風險管理目標及政策(續)

##### 信貸風險及減值評估(續)

本集團根據預期信貸虧損模式對金融資產及其他項目進行減值評估。於接納任何新客戶前，本集團利用內部信貸評分系統評估潛在客戶之信貸質素及就個別客戶制定信貸限額。本集團會每年兩次審閱給予客戶之限額及評分。本集團亦設有其他監察程序，確保採取跟進行動收回逾期債項。倘貿易應收款項以票據結算，本集團僅接納由信譽良好的中國國內銀行發行或擔保的票據，因此本集團管理層認為已背書或貼現票據所產生的信貸風險屬微不足道。在此方面，董事認為本集團的信貸風險大幅減少。在特許權安排下，本集團的應收款項僅集中於單一對手方。由於本集團的貿易應收款項總額的39% (2021年：34%) 乃應收本集團的五大客戶，因此本集團有信貸集中風險。為了將信貸風險減至最低，本集團管理層已委派一個專責團隊，負責釐定信貸限額及進行信貸審批。本集團根據預期信貸虧損模式對該等結餘進行減值評估，而適用的虧損率在附註21、22、23及43披露。合約資產的信貸風險乃根據全期預期信貸虧損內的撥備矩陣作評估。至於其他應收款項，董事根據歷史結算記錄、過往經驗以及合理的定量及定性資料和具支持性的前瞻性資料，定期對其他應收款項的可收回性作評估。有關項目的預期信貸虧損變動在綜合財務報表內的相關附註內披露。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

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#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

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

Credit risk on pledged time deposits and bank balances is limited because the counterparties are reputable banks with high credit ratings assigned by local or international credit agencies. The Group assessed 12-month ECL for pledged time deposits and bank balances by reference to information relating to probability of default and loss given default of the respective credit rating grades published by external credit rating agencies. Based on the average loss rates, the 12-month ECL on pledged time deposits and bank balances is considered to be insignificant.

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

#### 46. 金融風險管理目標及政策(續)

##### 信貸風險及減值評估(續)

由於已抵押定期存款及銀行結餘的對手方為獲地方或國際信貸機構給予高度信貸評級的銀行，因此該等存款及結餘的信貸風險有限。本集團參考有關違約可能性及虧損導致違反外部信貸評級機構公佈的有關信貸評級等級的資料，對已抵押定期存款及銀行結餘進行12個月預期信貸虧損評估。根據平均虧損率，有關已抵押定期存款及銀行結餘的12個月預期信貸虧損被認為不重大。

本集團的信貸風險評級框架包括以下類別：

Internal credit rating 內部信貸評級	Description 描述	Basis for recognising ECL 確認預期信貸虧損的基礎
Low risk 低風險	The counterparty has a low risk of default 對手方的逾期風險低	12-month ECL 12個月預期信貸虧損
Doubtful 不確定	There has been a significant increase in credit risk since initial recognition 自初始確認以來信貸風險顯著上升	Lifetime ECL-not credit-impaired 全期預期信貸虧損－無信貸減值
In default 違約	There is evidence indicating that the asset is credit-impaired 有證據顯示該資產出現信貸減值	Lifetime ECL-credit-impaired 全期預期信貸虧損－出現信貸減值
Write-off 撇銷	There is evidence indicating that the debtor is in severe financial difficulty and the Group has no realistic prospect of recovery 有證據顯示債務人處於嚴重財務困難，且本集團對收回欠款並無實際期望	Amount is written off 款額已撇銷

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

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

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

As at 31 December 2022

#### 46. 金融風險管理目標及政策(續)

##### 信貸風險及減值評估(續)

下表詳列本集團金融資產及合約資產根據預期信貸虧損評估所面臨的信貸風險：

於2022年12月31日

	12-month ECLs 12個月預期 信貸虧損	Lifetime ECLs 全期預期信貸虧損			Total 總計	
		Stage 1 第一階段	Stage 2 第二階段	Stage 3 第三階段		
	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	Simplified approach 簡化方法 RMB'000 人民幣千元	RMB'000 人民幣千元	
Debt instrument at fair value through other comprehensive income	按公允價值計入其他全面收益的債務工具	287,538	-	-	-	287,538
Long-term receivable	長期應收款項	51,748	-	-	-	51,748
Contract assets	合約資產	-	-	-	440,867	440,867
Trade receivables	貿易應收款項	-	-	-	918,149	918,149
Amounts due from related parties	應收關連方款項	147,689	-	-	232,403	380,092
Receivables under service concession arrangement	服務特許經營安排下的應收款項	546,869	-	-	-	546,869
Financial assets included in prepayments, deposits and other receivables	計入預付款項、按金及其他應收款項的金融資產	120,772	-	-	-	120,772
Pledged time deposits and bank balances – Not yet past due	已抵押定期存款及銀行結餘 – 尚未逾期	98,266	-	-	-	98,266
Cash and cash equivalents – Not yet past due	現金及現金等價物 – 尚未逾期	402,488	-	-	-	402,488
		1,655,370	-	-	1,591,419	3,246,789

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
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#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

#### 46. 金融風險管理目標及政策(續)

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

##### 信貸風險及減值評估(續)

As at 31 December 2021

於2021年12月31日

		12-month	Lifetime ECL			Total	
		ECLs	全期預期信貸虧損				
		12個月預期 信貸虧損	Stage 1	Stage 2	Stage 3	Simplified approach	Total
			第一階段	第二階段	第三階段	簡化方法	總計
		RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
		人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元	人民幣千元
Debt instrument at fair value through other comprehensive income	按公允價值計入其他全面收益的債務工具	284,168	-	-	-	-	284,168
Long-term receivable	長期應收款項	47,748	-	-	-	-	47,748
Contract assets	合約資產	-	-	-	-	445,614	445,614
Trade receivables	貿易應收款項	-	-	-	-	921,266	921,266
Amounts due from related parties	應收關連方款項	150,268	-	-	-	174,627	324,895
Receivables under service concession arrangement	服務特許經營安排下的應收款項	347,894	-	-	-	-	347,894
Financial assets included in prepayments, deposits and other receivables	計入預付款項、按金及其他應收款項的金融資產	42,993	-	-	-	-	42,993
Pledged time deposits and bank balances – Not yet past due	已抵押定期存款及銀行結餘 – 尚未逾期	142,009	-	-	-	-	142,009
Cash and cash equivalents – Not yet past due	現金及現金等價物 – 尚未逾期	342,958	-	-	-	-	342,958
		1,358,038	-	-	-	1,541,507	2,899,545

There has been no change in the estimation technique or significant assumptions made throughout the year ended 31 December 2022.

於截至2022年12月31日止年度內，估計技術或重要假設概無變更。

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

倘有資料顯示債務人處於嚴重財務困難及無實際期望可收回欠款，本集團則撇銷該貿易應收款項及合約資產（例如於債務人被清盤或進入破產程序時）。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

##### Liquidity risk

Ultimate responsibility for liquidity risk management rests with the Directors, who have established an appropriate liquidity risk management framework for the management of the Group's short, medium and long-term funding and liquidity management requirements. The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The tables include both interest and principal cash flows. To the extent that interest flows are floating rate, the undiscounted amount is derived from interest rate curves at the end of the reporting period. The contractual maturity is based on the earliest date on which the Group may be required to pay.

		Within 1 year or on demand 一年內或按要求 RMB'000 人民幣千元	1 to 5 years 一至五年 RMB'000 人民幣千元	Over 5 years 五年以上 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
<b>31 December 2022</b> <b>2022年12月31日</b>					
Lease liabilities	租賃負債	5,384	21,328	11,838	38,550
Interest-bearing bank and other borrowings	計息銀行及其他借款	98,061	86,327	–	184,388
Trade and bills payables	貿易應付款項及應付票據	1,134,240	–	–	1,134,240
Financial liabilities included in other payables, deposits received and accrued expenses	計入其他應付款項、已收按金及應計開支的金融負債	154,701	–	–	154,701
Amounts due to related parties	應付關連方款項	7,249	–	–	7,249
		<b>1,399,635</b>	<b>107,655</b>	<b>11,838</b>	<b>1,519,128</b>

#### 46. 金融風險管理目標及政策(續)

##### 流動資金風險

流動資金風險管理乃由本公司董事最終負責，而董事已建立適當的流動資金風險管理架構，以符合本集團短期、中期及長期資金及流動資金管理規定。本集團透過維持充足的儲備、銀行融資及儲備借款額度、透過持續監控預測及實際現金流量以及透過對金融資產及負債之到期情況進行配對而管理流動資金風險。

下表詳列本集團非衍生金融負債的剩餘合約期。下表乃根據金融負債的未貼現現金流量基於本集團可能須付款的最早日期編製。表格包括利息及本金現金流量。倘利息流為浮動利率，未貼現金額源自報告期末的利率曲線。合約到期日乃根據本集團須支付最早日期釐定。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

## 46. 金融風險管理目標及政策(續)

## Liquidity risk (Continued)

## 流動資金風險(續)

		Within 1 year or on demand 一年內或按要求	1 to 5 years 一至五年	Over 5 years 五年以上	Total 總計
		RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元	RMB'000 人民幣千元
<b>31 December 2021</b>					
<b>2021年12月31日</b>					
Lease liabilities	租賃負債	5,219	20,971	17,850	44,040
Interest-bearing bank and other borrowings	計息銀行及其他借款	88,383	89,298	-	177,681
Trade and bills payables	貿易應付款項及應付票據	1,136,336	-	-	1,136,336
Financial liabilities included in other payables, deposits received and accrued expenses	計入其他應付款項、已收按金及應計開支的金融負債	227,496	-	-	227,496
Long-term payable	長期應付款項	-	109,250	-	109,250
Amounts due to related parties	應付關連方款項	15,701	-	-	15,701
		1,473,135	219,519	17,850	1,710,504

## Capital risk management

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

The capital structure of the Group consists of interest-bearing bank and other borrowings, pledged time deposits and bank balances and cash and cash equivalents and equity attributable to owners of the parent, comprising share capital, treasury shares and reserves.

## 資本風險管理

本集團對其資本進行管理，以確保本集團各實體可繼續按持續經營基準經營，同時透過優化債務及股本平衡，為股東創造最大回報。本集團的整體策略於本年度保持不變。

本集團之資本架構由計息銀行及其他借款、已抵押定期存款及銀行結餘及現金及現金等價物以及母公司擁有人應佔股權(包括股本、庫存股份及儲備)組成。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 46. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES (Continued)

##### Capital risk management (Continued)

The Group uses different measures including an adjusted net debt-to-equity ratio to monitor its capital. Net debt is calculated as Interest-bearing bank and other borrowings, as shown in the consolidated statement of financial position, less cash and bank deposits. Total capital is calculated as equity holders' funds (i.e., total equity attributable to owners of the parent), as shown in the consolidated statement of financial position. The ratios as at the end of the reporting periods were as follows:

		Note 附註	2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
Interest-bearing bank and other borrowings	計息銀行及其他借款	31	174,137	165,965
Less: Cash and cash equivalents	減：現金及現金等價物		(402,488)	(342,958)
Pledged time deposits and bank balances	已抵押定期存款及銀行結餘		(98,266)	(142,009)
Net debt	淨債務		(326,617)	(319,002)
Total equity attributable to owners of the parent	母公司擁有人應佔總權益		2,834,503	2,741,111
Adjusted net debt-to-equity ratio	經調整淨債務對權益比率		(12%)	(12%)

##### 資本風險管理(續)

本集團使用不同計量指標(包括經調整淨債務對權益比率)來監控其資本。淨債務乃按綜合財務狀況表所示的計息銀行及其他借款減現金及銀行存款而計算。總資本乃計算為綜合財務狀況表所示的權益持有人資金(即母公司擁有人應佔總權益)。於報告期末的比率列示如下：

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

## 47. TRANSFERS OF FINANCIAL ASSETS

As at 31 December 2022, unmatured notes receivables amounting to RMB53,287,000 (2021: RMB8,600,000) issued by certain listed banks were endorsed to suppliers and no (2021: nil) unmatured notes receivables issued by certain listed banks were discounted to banks. In the opinion of the Directors, the Group has transferred the significant risks and rewards relating to these notes receivables, and the Group's obligations to the corresponding counterparties were discharged in accordance with the commercial practice in PRC and the risk of default in payment of the endorsed and discounted notes receivables is low because all these are issued and guaranteed by the reputable PRC banks. As a result, the relevant assets and liabilities were derecognised on the consolidated financial statements. The maximum exposure to the Group that may result from the default of these endorsed and discounted notes receivables at the end of the reporting period is represented by their carrying amounts.

In addition, the following are the Group's notes receivables that were transferred to banks or suppliers by discounting or endorsing the notes receivables on a full recourse basis as at 31 December 2022. As the Group has not transferred substantially all the risks and rewards relating to these notes receivables, the full carrying amount of the notes receivables are continuously recognised and the cash received upon the discount and the effect of endorsement are recorded as a collateralised bank borrowing (see note 31) and trade payables (see note 28). These notes receivables are carried at fair value through other comprehensive income in the Group's consolidated statement of financial position as the overall business model is to hold to collect contractual cash flows and to sell.

## 47. 金融資產轉移

截至2022年12月31日，若干上市銀行發行但尚未到期的金額為人民幣53,287,000元(2021年：人民幣8,600,000元)的應收票據已向供應商背書，而概無由若干上市銀行發行但尚未到期的應收票據貼現至銀行(2021年：無)。董事認為，本集團已轉移有關該等應收票據的重大風險及回報，而本集團對相關對手方的責任已根據中國商業慣例獲解除，且由於所有票據均由中國國內具聲譽銀行發行及擔保，故償付已背書及貼現的應收票據的違約風險很低。因此，有關資產及負債已在綜合財務報表內終止確認。本集團於報告期末因該等已背書及貼現的應付票據違約所承受的最大風險是指該等票據的賬面值。

此外，以下為本集團於2022年12月31日在完全追索權的基礎上貼現或背書應收票據而轉移至銀行的應收票據。由於本集團並無轉移此等應收票據的絕大部分風險及回報，故應收票據的整個賬面值持續確認，而貼現時收取的現金及背書的影響列賬為有抵押銀行借款(見附註31)及貿易應付款項(見附註28)。由於本集團的整體商業模式為持有該等應收票據以收取合約現金流量及出售，該等應收票據按公允價值計入全面收益於本集團的綜合財務狀況表列賬。



## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 47. TRANSFERS OF FINANCIAL ASSETS 47. 金融資產轉移(續)

(Continued)

		2022 2022年			2021 2021年		
		Notes receivable discounted to banks 已向銀行貼現 的應收票據 RMB'000 人民幣千元	Notes receivable endorsed to suppliers 已向供應商背書 的應收票據 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元	Notes receivable discounted to banks 已向銀行貼現 的應收票據 RMB'000 人民幣千元	Notes receivable endorsed to suppliers 已向供應商背書 的應收票據 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
Carrying amount of transferred assets	已轉移資產賬面值	-	46,461	46,461	24,664	63,675	88,339
Carrying amount of associated liabilities	相關負債賬面值	-	(46,461)	(46,461)	(24,664)	(63,675)	(88,339)
Net position	淨額	-	-	-	-	-	-

#### 48. EVENTS AFTER THE REPORTING PERIOD

No audited financial statements have been prepared by the Company and the Group in respect of any period subsequent to 31 December 2022.

#### 48. 報告期後事項

本公司及本集團並無就2022年12月31日之後任何期間編製經審核財務報表。

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 49. 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:

#### 49. 本公司財務狀況表

有關本公司於報告期末的財務狀況表之資料如下：

		2022 2022年 RMB'000 人民幣千元	2021 2021年 RMB'000 人民幣千元
<b>Non-current assets</b>	<b>非流動資產</b>		
Property, plant and equipment	物業、廠房及設備	59	111
Amounts due from subsidiaries	應收附屬公司款項	154,990	199,990
Investments in subsidiaries	於附屬公司的投資	1,240,899	1,237,383
<b>Total non-current assets</b>	<b>非流動資產總值</b>	<b>1,395,948</b>	<b>1,437,484</b>
<b>Current assets</b>	<b>流動資產</b>		
Prepayments, deposits and other receivables	預付款項、按金及其他應收款項	9,649	8,192
Financial assets at fair value through profit or loss	按公允價值計入損益的金融資產	21,608	178,771
Amounts due from subsidiaries	應收附屬公司款項	23,871	23,230
Bank balances and cash	銀行結餘及現金	100,104	27,547
<b>Total current assets</b>	<b>流動資產總值</b>	<b>155,232</b>	<b>237,740</b>
<b>Current liabilities</b>	<b>流動負債</b>		
Trade payables	貿易應付款項	620	-
Other payables, deposits received and accrued expenses	其他應付款項、已收按金及應計開支	14,567	13,629
<b>Total current liabilities</b>	<b>流動負債總額</b>	<b>15,187</b>	<b>13,629</b>
<b>Net current assets</b>	<b>流動資產淨值</b>	<b>140,045</b>	<b>224,111</b>
<b>Net assets</b>	<b>資產淨值</b>	<b>1,535,993</b>	<b>1,661,595</b>
<b>Capital and reserves</b>	<b>資本及儲備</b>		
Share capital	股本	67	67
Treasury shares	庫存股份	(1)	(1)
Other reserves (Note)	其他儲備(附註)	1,535,927	1,661,529
		<b>1,535,993</b>	<b>1,661,595</b>

## Notes to the Consolidated Financial Statements (Continued)

## 綜合財務報表附註(續)

For the year ended 31 December 2022  
截至2022年12月31日止年度

#### 49. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (Continued)

Note:

A summary of the Company's reserves is as follows:

附註：

本公司儲備之概要如下：

		Share premium 股份溢價賬 RMB'000 人民幣千元	Merger reserve 合併儲備 RMB'000 人民幣千元	Other reserve 其他儲備 RMB'000 人民幣千元	Accumulated losses 累計虧損 RMB'000 人民幣千元	Total 總計 RMB'000 人民幣千元
At 1 January 2021	於2021年1月1日	1,520,397	371,500	(130,310)	(295,812)	1,465,775
Profit and total comprehensive income for the year	年內溢利及全面收益總額	-	-	-	254,789	254,789
Final 2020 dividend declared	已宣派2020年末期股息	-	-	-	(62,073)	(62,073)
Repurchase and cancellation of ordinary shares	購回及註銷普通股	(1,486)	-	-	-	(1,486)
Share-based payments	以股份為基礎付款	4,524	-	-	-	4,524
At 31 December 2021 and 1 January 2022	於2021年12月31日及 2022年1月1日	1,523,435	371,500	(130,310)	(103,096)	1,661,529
Loss and total comprehensive expense for the year	年內虧損及全面虧損總額	-	-	-	(66,055)	(66,055)
Final 2021 dividend declared	已宣派2021年末期股息	-	-	-	(63,821)	(63,821)
Repurchase and cancellation of ordinary shares	購回及註銷普通股	(60)	-	-	-	(60)
Share-based payments	以股份為基礎付款	4,334	-	-	-	4,334
At 31 December 2022	於2022年12月31日	1,527,709	371,500	(130,310)	(232,972)	1,535,927

#### 50. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 24 March 2023.

#### 50. 財務報表的批准

財務報表已於2023年3月24日獲董事會批准及授權刊發。



# 中国博奇环保(控股)有限公司

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