

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



Interim Report
中期報告 **2024**

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Corporate Information

公司資料

BOARD OF DIRECTORS

Executive Directors

Zeng Zhijun (*Chairman*)
Liu Genyu
Qian Xiaoning

Non-Executive Directors

Cheng Liquan Richard
Zheng Tony Tuo
Zhu Weihang
Chen Xue

Independent Non-Executive Directors

Xie Guozhong
Li Tao
Yu Wayne W.
Zhang Fan

AUDIT COMMITTEE

Xie Guozhong (*Chairman*)
Zheng Tony Tuo
Zhang Fan

REMUNERATION COMMITTEE

Li Tao (*Chairman*)
Zeng Zhijun
Yu Wayne W.

NOMINATION COMMITTEE

Zeng Zhijun (*Chairman*)
Xie Guozhong
Li Tao

JOINT COMPANY SECRETARIES

Hu Nan
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*)
劉根鈺
錢曉寧

非執行董事

程里全
鄭拓
朱偉航
陳學

獨立非執行董事

謝國忠
李濤
俞偉峰
張帆

審核委員會

謝國忠 (*主席*)
鄭拓
張帆

薪酬委員會

李濤 (*主席*)
曾之俊
俞偉峰

提名委員會

曾之俊 (*主席*)
謝國忠
李濤

聯席公司秘書

胡楠
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
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太古坊一座27樓

REGISTERED OFFICE

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

PLACE OF BUSINESS IN HONG KONG

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248 Queen's Road East
Wanchai, Hong Kong

HEADQUARTERS IN THE PRC

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註冊辦事處

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Cayman Islands

香港營業地點

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皇后大道東248號
大新金融中心40樓

中國主要辦事處

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誠盈中心1號樓9-10層

法律顧問

有關香港法律
周俊軒律師事務所
與北京市通商律師事務所聯營
香港中環
遮打道18號
歷山大廈3401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

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

HONG KONG BRANCH SHARE REGISTRAR

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

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

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

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

STOCK CODE AND BOARD LOT

Stock Code:

2377

Board Lot:

1,000 Shares

股份代號及買賣單位

股份代號：

2377

買賣單位：

1,000股

INVESTOR RELATIONS AND COMMUNICATIONS

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Financial and Operation Highlights

財務及營運摘要

For the six months ended 30 June 2024, the Group's revenue amounted to RMB949 million, representing a decrease of 5.2% as compared to RMB1,001 million for the same period last year. Of which, revenue from flue gas treatment business was RMB741 million, revenue from water treatment business was RMB90 million, revenue from hazardous and solid waste treatment/disposal business was RMB22 million and revenue from dual-carbon new energy+ business was RMB96 million.

For the six months ended 30 June 2024, the Group's gross profit amounted to RMB199 million, representing a decrease of 1.5% as compared to RMB202 million for the same period last year. The Group's gross profit margin was 21.0%, representing an increase of 0.8 percentage point.

For the six months ended 30 June 2024, the Group's net profit was RMB116 million with a net profit margin of 12.2%, representing a decrease of 14.7% and 1.4 percentage points respectively from RMB136 million and 13.6% for the same period last year. Excluding losses on fair value changes in financial assets at fair value through profit or loss and investment income, net profit was RMB116 million with a net profit margin of 12.2%, representing a decrease of 11.5% and 0.9 percentage point respectively as compared to RMB131 million and 13.1% for the same period last year.

For the six months ended 30 June 2024, the Group secured 19 new contracts, covering thermal power, steel and new energy fields.

In this interim report, certain amounts and percentage figures have been subject to rounding adjustments, or have been rounded to one or decimal places. Any discrepancies in any tables, charts or elsewhere between total and sums of amounts listed therein are due to rounding.

截至2024年6月30日止六個月，本集團的收益為人民幣949百萬元，較去年同期人民幣1,001百萬元減少5.2%。其中，煙氣治理業務收入為人民幣741百萬元，水處理業務收入為人民幣90百萬元，危固廢處理處置業務收入為人民幣22百萬元，雙碳新能源+業務收入為人民幣96百萬元。

截至2024年6月30日止六個月，本集團的毛利為人民幣199百萬元，較去年同期人民幣202百萬元減少1.5%。本集團的毛利率為21.0%，較去年同期增加0.8個百分點。

截至2024年6月30日止六個月，本集團純利為人民幣116百萬元及純利率為12.2%，分別較去年同期人民幣136百萬元及13.6%減少14.7%及1.4個百分點。剔除按公允價值計入損益的金融資產之公允價值變動損失及投資收益後，純利為人民幣116百萬元及純利率為12.2%，分別較去年同期人民幣131百萬元及13.1%減少11.5%及0.9個百分點。

截至2024年6月30日止六個月，本集團取得19個新簽訂單，涵蓋火電、鋼鐵及新能源領域。

本中期報告所載若干金額及百分比數字已經約整，或約整至小數點後一位或兩位數。任何表格、圖表或其他地方所列總數與金額總和之間的任何差異乃因約整所致。

Financial and Operation Highlights (Continued)

財務及營運摘要 (續)

FINANCIAL HIGHLIGHTS

財務摘要

For the six months ended
30 June

截至6月30日止六個月

		2024 2024年 RMB' 000 人民幣千元 (Unaudited) (未經審核)	2023 2023年 RMB' 000 人民幣千元 (Unaudited) (未經審核)
Revenue	收益	949,415	1,000,686
Cost of sales and services	銷售及服務成本	(750,145)	(798,581)
Gross profit	毛利	199,270	202,105
Other income and gains	其他收入及收益	11,874	29,934
Other expenses and losses	其他費用及損失	(1,359)	(2,139)
Selling and distribution expenses	銷售及分銷開支	(10,039)	(10,688)
Administrative expenses	行政開支	(48,409)	(42,212)
Research and development expenses	研發開支	(23,595)	(23,557)
Reversal of impairment losses/(Impairment loss) on financial assets and contract assets	金融資產及合約資產的減值撥回/(損失)	2,922	(15,328)
Share of profit of associates	分佔聯營公司溢利	5,647	13,980
Finance costs	財務成本	(7,944)	(6,584)
Profit before tax	除稅前溢利	128,367	145,511
Income tax expense	所得稅開支	(12,470)	(9,603)
Profit for the period	期內溢利	115,897	135,908
Net cash generated from/(used in) operating activities	經營活動所得/(所用)現金淨額	33,337	(105,966)
Net cash (used in) investing activities	投資活動(所用)現金淨額	(126,713)	(25,100)
Net cash generated from/(used in) financing activities	融資活動所得/(所用)現金淨額	90,518	(50,399)

Financial and Operation Highlights (Continued)

財務及營運摘要 (續)

		As at 30 June 2024 於2024年 6月30日 RMB'000 人民幣千元 (Unaudited) (未經審核)	As at 31 December 2023 於2023年 12月31日 RMB'000 人民幣千元 (Audited) (經審核)
Total non-current assets	非流動資產總額	2,354,922	2,206,946
Total current assets	流動資產總額	2,747,178	2,811,851
Total assets	資產總額	5,102,100	5,018,797
Total current liabilities	流動負債總額	1,693,733	1,796,996
Net current assets	流動資產淨值	1,053,445	1,014,855
Total assets less current liabilities	資產總額減流動負債	3,408,367	3,221,801
Total non-current liabilities	非流動負債總額	219,705	152,868
Total liabilities	負債總額	1,913,438	1,949,864
Net assets	資產淨值	3,188,662	3,068,933
Total liabilities and equity	負債及權益總額	5,102,100	5,018,797

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 dual-carbon new energy+ to industrial enterprises and cities. Our business mainly focuses on flue gas treatment, water treatment, hazardous and solid waste treatment/disposal and dual-carbon new energy+ sectors. 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 the objectives of dual-carbon development, 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

In the first half of 2024, the environmental protection industry ushered in a series of positive changes at the policy level, aiming to promote the green transformation and sustainable development of the industry. As the regulatory landscape of the environmental protection industry gradually improves, policies and regulations have been strengthened and refined in all-round areas such as flue gas, water and solid waste treatment. Under the guidance of the “14th Five-Year Plan”, the environmental protection industry is developing in a strategic direction focusing on pollution abatement and carbon reduction, and is committed to achieving a comprehensive green transformation of the economy and society and a qualitative leap in the quality of the ecological environment. With the deepening of policies and the improvement of market mechanisms, the industry is expected to usher in more development opportunities and achieve the sustainable development goals of green, low-carbon and recycling.

本集團是向工業企業及城市提供環境治理及雙碳新能+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、雙碳新能+領域。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及雙碳發展目標，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

2024年上半年，環保行業在政策層面迎來了一系列積極變化，旨在推動行業的綠色轉型和可持續發展。隨着環保行業監管格局的逐步完善，政策法規在氣、水、固廢處理等全方位領域得到加強和細化。在「十四五」規劃的引領下，環保行業正邁向以減污降碳為重點的戰略方向，致力於實現經濟社會的全面綠色轉型和生態環境質量的質的飛躍。隨着政策的深耕和市場機制的完善，行業有望迎來更多的發展機遇，實現綠色、低碳、循環的可持續發展目標。

On 9 February 2024, the General Office of the State Council issued the “Opinions on Accelerating the Construction of a Waste Recycling System”. It is proposed that by 2025, the annual utilization amount of bulk solid waste such as gypsum, construction waste and straw which are industrial by-products will reach 4 billion tons, and the comprehensive utilization rate of new bulk solid waste will reach 60%. The annual utilization amount of major renewable resources such as scrap steel, scrap copper, scrap aluminum, scrap lead, scrap zinc, waste paper, waste plastic, waste rubber and waste glass will reach 450 million tons. The annual output value of the resource recycling industry will reach RMB5,000 billion. By 2030, a comprehensive, highly efficient, standardized and orderly waste recycling system will be established, and the overall level of waste recycling will be among the highest in the world. This is of great significance to the improvement of security capabilities of resource and energy, helping to achieve carbon peaking and carbon neutrality and comprehensively promoting the construction of a beautiful China.

On 18 March 2024, the National Energy Administration issued a notice on the issuance of the “Guidelines on Energy Work in 2024”, which proposed to vigorously promote the high-quality development of non-fossil energy. The government will intensively implement the dual carbon goals and tasks, take various measures to increase the proportion of non-fossil energy, optimize and improve industrial development policies, and promote green energy development to support the construction of an eco-friendly beautiful China. It will also consolidate and expand the favorable development trend of wind power and photovoltaics. To this end, it will steadily advance the construction of large-scale wind power and photovoltaic infrastructures and promote the completion and commissioning of related projects in an orderly manner. The government will coordinate and optimize the deployment of offshore wind power, facilitate the construction of offshore wind power infrastructures, and steadily and orderly promote the development of offshore wind power to extend to deep water and far shores. It will

2024年2月9日，國務院辦公廳印發《關於加快構建廢棄物循環利用體系的意見》。其中提出，到2025年工業副產石膏、建築垃圾、秸稈等大宗固體廢棄物年利用量達到40億噸，新增大宗固體廢棄物綜合利用率達到60%。廢鋼鐵、廢銅、廢鋁、廢鉛、廢鋅、廢紙、廢塑料、廢橡膠、廢玻璃等主要再生資源年利用量達到4.5億噸。資源循環利用產業年產值達到人民幣5萬億元。到2030年，建成覆蓋全面、運轉高效、規範有序的廢棄物循環利用體系，廢棄物循環利用水平總體居於世界前列。這對提升資源能源安全保障能力、助力實現碳達峰碳中和、全面推進美麗中國建設具有重要意義。

2024年3月18日，國家能源局發佈關於印發《2024年能源工作指導意見》的通知，其中提出大力推進非化石能源高質量發展。深入落實雙碳目標任務，多措並舉提高非化石能源比重，優化完善產業發展政策，以能源綠色發展支撐美麗中國建設。鞏固擴大風電光伏良好發展態勢。穩步推進大型風電光伏基地建設，有序推動項目建成投產。統籌優化海上風電佈局，推動海上風電基地建設，穩妥有序推動海上風電向深水遠岸發展。做好全國光熱發電規劃佈局，持續推動光熱發電規模化發展。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

also set out a comprehensive planning and layout of nationwide photothermal power generation and continue to promote the large-scale development of photothermal power generation. It will accelerate the development of distributed wind power and distributed photovoltaic power generation according to the policies in different locations, and organize and implement the “Thousands of Villages Wind Power Coverage Action” and “Thousands of Households Photovoltaic Coverage Action” in areas with favorable conditions, while carry out a national census and pilot project of wind and solar power generation resources.

On 20 March 2024, the State Council announced the Regulations on Water Conservation, which came into effect on 1 May 2024. This is the first administrative regulation on water conservation in the PRC. The Regulations summarize the fruitful practice of water conservation since the 18th National Congress of the Communist Party of China, transform effective experiences and practices into institutional norms, comprehensively and systematically standardize and promote water conservation activities, in order to provide strong legal protection for securing national water safety, promoting the construction of ecological civilization and promoting high-quality development.

On 29 May 2024, the State Council issued the “2024-2025 Energy Saving and Carbon Reduction Action Plan” to arrange and formulate ten key tasks including fossil energy consumption reduction and replacement actions, energy saving and carbon reduction actions in the steel industry, and promote higher levels and better quality in the efforts of energy saving and carbon reduction, better leverage the economic, social and ecological efficiency of energy saving and carbon reduction, thus laying a solid foundation for the achievement of the goal of carbon peaking and carbon neutrality. By implementing measures for reducing fossil energy consumption and its replacement and carrying out actions to increase non-fossil energy consumption, it will provide a strong support for the development of the power and environmental protection industry.

因地制宜加快推動分散式風電、分佈式光伏發電開發，在條件具備地區組織實施「千鄉萬村馭風行動」和「千家萬戶沐光行動」。開展全國風能和太陽能發電資源普查試點工作。

2024年3月20日，國務院公佈《節約用水條例》，自2024年5月1日起施行。這是中國首部節約用水行政法規。該條例總結黨的十八大以來節水工作的豐富實踐，將行之有效的經驗做法轉化為制度規範，全面、系統規範和促進節水活動，為保障國家水安全、推進生態文明建設、推動高質量發展提供有力的法治保障。

2024年5月29日，國務院印發《2024 – 2025年節能降碳行動方案》，安排制定化石能源消費減量替代行動、鋼鐵行業節能降碳行動等十項重點任務，推動更高水平更高質量做好節能降碳工作，更好發揮節能降碳的經濟效益、社會效益和生態效益，為實現碳達峰碳中和目標奠定堅實基礎。通過實施化石能源消費減量替代行動、開展非化石能源消費提升行動等，為電力環保行業的發展提供有力保障。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

On 4 June 2024, the National Energy Administration issued the “Notice on Arrangement of New Energy Consumption to Ensure the High-Quality Development of New Energy” to propose specific measures in key directions such as the coordinated development of network sources, improvement of regulation capabilities and allocation of power grid resources, with a view to promoting the healthy development of new energy and injecting new vitality into the development of the new energy industry.

On 7 June 2024, five government authorities including the National Development and Reform Commission released special action plans for energy saving and carbon reduction targeting the four key industries of steel, oil refining, ammonia and cement. These action plans are designed to support the completion of binding targets for the reduction of the intensity of energy consumption during the “14th Five-Year Plan” period. It is expected that between 2024 and 2025, through energy-saving and carbon-reduction transformation, the four major industries will save approximately 32 million tons of standard coal. Especially in the steel industry, it is estimated that the potential market scale of energy-saving fans and energy-saving water pumps will reach RMB37.6 billion by 2025, which will provide a broad market space for the development of environmental protection technology and equipment.

2024年6月4日，國家能源局發佈《關於做好新能源消納工作 保障新能源高質量發展的通知》，提出了網源協調發展、調節能力提升、電網資源配置等重點方向的具體舉措，以促進新能源的健康發展，為新能源行業的發展，注入了新的活力。

2024年6月7日，國家發改委等五部門發佈了針對鋼鐵、煉油、合成氨和水泥四大重點行業的節能降碳專項行動計劃。這些行動計劃旨在支撐完成「十四五」期間能耗強度降低的約束性指標，預計在2024至2025年間，通過節能降碳改造，四大行業將形成約3,200萬噸標準煤的節能量。特別是鋼鐵行業，據測算，至2025年，節能風機和節能水泵的潛在市場規模有望達到人民幣376億元，這為環保技術和設備的發展提供了廣闊的市場空間。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

On 21 June 2024, the Ministry of Ecology and Environment released the “Opinions on Promoting the Implementation of Ultra-Low Emissions from Coal-Fired Boilers with High Quality (Draft for Comment)”. The main goal is to basically complete both organized and unorganized ultra-low emission transformation of coal-fired boilers and captive power plants in key areas by the end of 2025. In other areas, 60% of coal-fired boilers with a capacity of 65 tons/hour and above will then complete organized ultra-low emission transformation; captive power plants will basically complete both organized and unorganized ultra-low emission transformation. By the end of 2028, coal-fired boiler users in key areas with an annual coal transportation volume of 100,000 tons or more will basically complete clean transportation transformation; captive power plants will basically complete full-process ultra-low emission transformation. In other areas, 80% of coal-fired boilers with a capacity of 65 tons/hour and above will complete both organized and unorganized ultra-low emission transformations, and coal-fired boiler users with an annual coal transportation volume of 500,000 tons and above will basically complete clean transportation transformation; and 80% of captive power plants will complete the entire process of ultra-low emission transformation. The ultra-low emission transformation of coal-fired boilers will generate huge market demand and will bring new growth drivers for the environmental protection industry.

2024年6月21日，生態環境部對外發佈了《關於高質量推進實施燃煤鍋爐超低排放的意見(徵求意見稿)》。主要目標到2025年底前，重點區域燃煤鍋爐及自備電廠基本完成有組織、無組織超低排放改造。其他地區65蒸噸／小時及以上燃煤鍋爐60%完成有組織超低排放改造；自備電廠基本完成有組織、無組織超低排放改造。到2028年底前，重點區域煤炭年運輸量10萬噸及以上的燃煤鍋爐使用企業基本完成清潔運輸改造；自備電廠基本完成全流程超低排放改造。其他地區65蒸噸／小時及以上燃煤鍋爐80%完成有組織、無組織超低排放改造，煤炭年運輸量50萬噸及以上的燃煤鍋爐使用企業基本完成清潔運輸改造；80%自備電廠完成全流程超低排放改造。燃煤鍋爐超低排放改造將產生大量的市場需求，將為環保產業帶來新的增長點。

2. BUSINESS REVIEW

In the first half of 2024, the global and domestic economic environment is complex and volatile, and the combined effect of various factors such as the slowdown in global economic growth and the acceleration of energy transformation have brought unprecedented challenges and opportunities for the environmental protection and new energy industries. With the focusing of the global market on sustainable development and energy transformation, the environmental protection and new energy industries have attracted a large number of new players, resulting in increasingly fierce market competition.

Faced with the dual challenges of intensifying industry competition and increasing pressure on customers' capital turnover, the business expansion and project execution of the Group have been affected to a certain extent. Despite the complex and volatile market environment, we firmly believe that by continuously optimizing business strategies, improving operational efficiency, increasing the effort on market expansion, deepening customer relationships and continuing to pursue technological innovation, we will be able to outcompete the fierce market competition.

2. 業務回顧

2024年上半年，全球及國內經濟環境複雜多變，全球經濟增速放緩、能源轉型加速推進等多重因素交織，為環保與新能源行業帶來了前所未有的挑戰與機遇。隨着全球對可持續發展和能源轉型的重視，環保與新能源行業吸引了大量新進入者，導致市場競爭愈發激烈。

面對行業競爭加劇與客戶資金流通壓力增大的雙重挑戰，本集團業務拓展及項目執行受到了一定程度的影響。儘管市場環境複雜多變，我們堅信，通過不斷優化經營策略、提升運營效率、加大市場拓展力度、深化客戶關係、持續技術創新，定能在激烈的市場競爭中脫穎而出。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

As of 30 June 2024, the Group's projects have a wide coverage in China, covering 31 provinces, municipalities and autonomous regions in China. Meanwhile, our overseas businesses are also distributed in Europe, South Asia, Latin America, Africa and Southeast Asia.

The following map shows the distribution of the projects of the Group within the PRC as of 30 June 2024:

截至2024年6月30日，本集團的項目在中國覆蓋範圍廣泛，遍及中國31個省、市及自治區。同時，我們的海外業務也分佈於歐洲、南亞、拉丁美洲、非洲及東南亞地區。

下圖列示截至2024年6月30日，本集團在中國境內的項目分佈：



The following map shows the distribution of the projects of the Group outside the PRC as of 30 June 2024:

下圖列示截至2024年6月30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 environmental protection facility engineering ("EPC"), operation and maintenance ("O&M") and investment (including "Build-Operate-Transfer" or "BOT", "Build-Own-Operate" or "BOO" and operation of self-owned assets). During the Reporting Period, through continuously strengthening the construction of the customer service system and relying on our sound project implementation experience, we continued to expand the scale of the electricity and non-electricity markets by seizing the opportunities brought about by favorable policies of the state, among them:

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環保設施工程（「EPC」）、運營維護（「運維」）及投資（包括「建設－運營－轉讓」或「BOT」、 「建設－擁有－運營」或「BOO」及自有資產運營）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，緊抓政策機遇，持續拓展電力及非電市場規模。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 SO₂ or NO_x emission control and dust removal for industrial customers such as power plants, steel factories, chemical plants, refining and building material companies. The Group continued to step up its efforts in the market of flue gas treatment business. During the Reporting Period, it obtained two orders with contract value of more than RMB100 million, namely the Auxiliary Equipment Procurement Project for Shanwei Power Plant Phase II and the Upgrading and Transformation Project on Flue Gas Desulfurization and Denitrification Equipment for Two 230 m² Sintering Machine Heads in the Sintering Plant of Tianjin Xintiangang Union Special Steel Co., Ltd. As of 30 June 2024, the Group had newly added 5 EPC projects, with a total contract value of approximately RMB372 million.

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。本集團持續深耕煙氣治理業務市場，於報告期內獲得汕尾電廠二期輔機設備採購項目及天津市新天鋼聯合特鋼有限公司燒結廠2台230平米燒結機頭煙氣脫硫脫硝設備升級改造項目兩個超億元人民幣訂單。截至2024年6月30日，本集團新增5個EPC項目，總計合同金額約人民幣372百萬元。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

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

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 (Month/Year) (年／月)	Aggregate contract value 合同額 RMB million 人民幣百萬元
1	Sales and Purchase Project for Optimization and Transformation Equipment of Denitrification System and Ammonia Spray of Unit #5 of Donghai Thermal Power Plant 東海熱電廠#5機組脫硝系統噴氨優化改造設備買賣項目	Denitrification 脫硝	Upgraded 改造	February 2024 2024年2月	4
2	Supply Project for Flue Gas Denitrification Equipment of 2X350MW Smart Thermal Power Cogeneration Unit Project of SPIC Tongliao 國家電投通遼2X350MW智慧熱電聯產機組項目煙氣脫硝設備供貨項目	Denitrification 脫硝	Newly built 新建	February 2024 2024年2月	15
3	Procurement Project for the Second Batch of Auxiliary Equipment (Package 16: Desulphurization System) of Units #5 & 6 (2x1,000MW) of Shanwei Power Plant Phase II Expansion Project 汕尾電廠二期5、6號機組(2x1,000MW)擴建工程第二批輔機設備(第16包：脫硫系統)採購項目	Desulfurization 脫硫	Newly built 新建	April 2024 2024年4月	108

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 (Month/Year) (年／月)	Aggregate contract value 合同額 RMB million 人民幣百萬元
4	Sales and Purchase Project for the Ammonia Spray Optimization and Transformation Equipment of Unit #7 Denitrification System of Donghai Thermal Power Plant 東海熱電廠#7機組脫硝系統噴氨優化改造設備買賣項目	Denitrification 脫硝	Upgraded 改造	April 2024 2024年4月	4
5	Upgrading and Transformation Project on Flue Gas Desulfurization and Denitrification Equipment for Two 230 m ² Sintering Machine Heads in the Sintering Plant of Tianjin Xintiangang Union Special Steel Co., Ltd. 天津市新天鋼聯合特鋼有限公司燒結廠2台230平米燒結機機頭煙氣脫硫脫硝設備升級改造項目	Desulfurization and denitrification 脫硫脫硝	Upgraded 改造	May 2024 2024年5月	241

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

O&M

O&M services mainly includes operation services, 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 tonnes of sintering iron ore generated during the service period, or (ii) a fixed price determined based on the pre-agreed scope of work. Revenues from the O&M business can be a sustainable one, generating stable cash flow for the Group.

As of 30 June 2024, the Group had a total of 35 O&M projects under operation, covering industrial sectors such as electricity and steel, which have operated consistently with their emissions in compliance with required standards, providing a stable source for business growth of the Group.

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	O&M Project for Yangcheng #1-6 Unit Flue Gas Desulfurization 陽城1-6號機組煙氣脫硫運維項目	Desulfurization and dust removal 脫硫除塵	July 2018 2018年7月	March 2025 2025年3月	6×350MW
2	O&M Project for Yangcheng #7-8 Unit Flue Gas Desulfurization 陽城7-8號機組煙氣脫硫運維項目	Desulfurization, dust removal and slag removal 脫硫除塵除渣	June 2018 2018年6月	March 2025 2025年3月	2×600MW
3	O&M Project for Qinzhou Desulfurization 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+ 2×1,000MW
4	O&M Project for Jingjiang Flue Gas Desulfurization and Dust Removal 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 2025 2025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2024年6月30日，本集團共有35個投運的運維項目，覆蓋電力及鋼鐵等工業領域，各項目穩定運行，達標排放，為本集團提供穩健的業績增長來源。

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	O&M Project for Flue Gas Desulfurization and Denitrification of Yangxi Power Plant Unit #3-4 陽西電廠3-4號機組煙氣脫硫 脫硝運維項目	Desulfurization and denitrification 脫硫脫硝	January 2017 2017年1月	December 2028 2028年12月	2×600MW 2×600MW
6	Commissioned Operation Project for Shouguang Auxiliary Ashing and Sulfurization Control System 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	2×1,000MW 2×1,000MW
7	O&M Project of Jinxi Steel 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	August 2026 2026年8月	265 m ² sintering machines 265 m ² 燒結機
8	O&M Project for Denitrification, Desulfurization and Dust Removal on 350 m ² Sintering Machines of Tianjin Iron Plant 天津鐵廠350平米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 2025 2025年11月	350 m ² sintering machines 350 m ² 燒結機
9	O&M Project for Denitrification on 360 m ² Sintering Machines of Tianjin Iron Plant 天津鐵廠360平米燒結機脫硝運維項目	Denitrification 脫硝	December 2019 2019年12月	December 2025 2025年12月	360 m ² sintering machines 360 m ² 燒結機
10	O&M Project for Desulfurization, Denitrification and Wastewater Zero-discharge System Equipment Maintenance Works of #5 & 6 units of Yangxi 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	2×1,240MW 2×1,240MW
11	Operation and Maintenance Service Project for Environmental Protection Facilities of Shanxi Yuguang Power Generation Co., Ltd. 山西昱光發電有限公司環保設施運行 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 2026 2026年7月	2×300MW+ 2×350MW 2×300MW+ 2×350MW
12	O&M Project of Hegang Chenggang (Note 1) 河鋼承鋼運維項目 (附註1)	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 ² sintering machines 180 m ² 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
13	Contract Operation Project for Desulfurization and Denitrification System of No. 2 Sintering Plant of Jinxi Iron and Steel Group Co., Ltd. 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	August 2026 2026年8月	265 m ² 燒結機
14	O&M Project for Sintering Machine Flue Gas Purification Device relating to the Integrated Project of Removing the Old District of HBIS Hansteel from Urban Area of Handan Steel Group Co., Ltd. 邯鄲鋼鐵集團有限公司河鋼邯鄲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	April 2023 2023年4月	April 2028 2028年4月	435 m ² 燒結機
15	O&M Project for 2×1000MW Desulfurization System of Nanyang 南陽2×1,000MW脫硫系統運行維護項目	Desulfurization system 脫硫系統	August 2021 2021年8月	November 2024 2024年11月	2×1,000MW
16	Maintenance Project for 2×660MW Lime Sulfur and Coal Transportation of Panji Power Plant of Danji 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
17	O&M Project for Environmental Protection Facilities of Shanxi International Energy Yuguang Coal and Electricity Co., Ltd. 山西國際能源裕光煤電有限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	1×1,000MW
18	Desulfurizer Purchase and Sale Project of Chengde Branch of Hebei Steel Co., Ltd. (Note 1) 河鋼股份有限公司承德分公司脫硫劑採購買賣項目(附註1)	Denitrification, desulfurization and dust removal 脫硝脫硫及除塵	February 2022 2022年2月	February 2027 2027年2月	180 m ² 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
19	Outsourcing Operation Project for Desulfurization and Denitrification 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, denitrification and dust removal 脫硫脫硝及除塵	September 2022 2022年9月	August 2025 2025年8月	450 m ² sintering machines 450 m ² 燒結機
20	Auxiliary Control Operation and Auxiliary Production Service Project for Ash Vulcanization 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	Auxiliary control operation and auxiliary production service for ash vulcanization 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
21	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
22	O&M Project for 299,000 Vertical 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 gas cabinet equipment for vertical blast furnace 高爐煤氣櫃設備運維	October 2022 2022年10月	October 2026 2026年10月	299,000 29.9萬
23	Operation Project for Desulfurization and Denitrification of No. 1 Sintering Plant of Jinxi Iron and Steel Group Co., Ltd. 津西鋼鐵集團有限公司燒結 廠一燒脫硫脫硝運營項目	Desulfurization, denitrification and dust removal 脫硫脫硝及除塵	September 2023 2023年9月	August 2026 2026年8月	265 m ² sintering machines 265m ² 燒結機
24	Outsourcing Contracting project for Pellet Desulfurization of Sintering Plant of Jinxi Iron and Steel Group Co., Ltd. 津西鋼鐵集團有限公司燒結廠 球團脫硫外委承包項目	Desulfurization and dust removal 脫硫及除塵	September 2023 2023年9月	August 2026 2026年8月	265 m ² sintering machines 265m ² 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
25	O&M Project for #1, #2 and #3, 250 Rolling Line Heating Furnace Denitrification System of Steel Company 型鋼公司#1、#2#3、250軋線加熱爐脫硝系統維保運維項目	Denitrification 脫硝	September 2023 2023年9月	August 2026 2026年8月	1,390,000 tons + 2,200,000 tons + 378,000 tons 139萬噸+ 220萬噸+37.8萬噸
26	O&M Project for Heating Furnace Denitrification System of Steel Sheet Pile Technology Co., Ltd. 鋼板樁型鋼科技有限公司加熱爐脫硝系統維保運維項目	Denitrification 脫硝	September 2023 2023年9月	August 2026 2026年8月	545,000 tons 54.5萬噸
27	O&M Project for Denitrification System of the First and Second Rolling Heating Furnaces of Jinxi Iron and Steel Strip Plant 津西鋼鐵帶鋼廠一軋、二軋加熱爐脫硝系統維保運維項目	Denitrification 脫硝	September 2023 2023年9月	August 2026 2026年8月	2,686,000 tons 268.6萬噸
28	O&M Project for Green Island of 2x350MW Low Heating Value Coal Power Generation Project of Jijiantou Shouyang Thermal Power Co., Ltd. (Note 2) 冀建投壽陽熱電有限責任公司2x350MW低熱值煤發電工程環島運行及維護項目(附註2)	Desulfurization, denitrification and dust removal 脫硫脫硝除塵	July 2023 2023年7月	October 2043 (settlement to be adjusted according to actual situation every 3 years) 2043年10月(每3年據實調整結算)	2x350MW 2x350MW
29	Equipment Maintenance Project Contract for #1- #6 units of Yangxi Power Plant (maintenance of coal transportation system of the whole plant and dock system) 陽西電廠#1-#6機組設備維護工程承包項目(全廠輸煤系統、碼頭維護系統)	Coal transportation/terminal 輸煤/碼頭	December 2023 2023年12月	December 2028 2028年12月	2x600MW+ 2x660MW+ 2x1,240MW 2x600MW+ 2x660MW+ 2x1,240MW
30	O&M Service Project for the Desulfurization System of the Power Center of Shandong Yulong Thermal Power Co., Ltd. 山東裕龍熱力有限公司動力中心脫硫系統運行維護服務項目	Desulfurization (including wet electrostatic precipitator) 脫硫(含濕式電除塵器)	Subject to owner's notification (Note 3) 業主通知(附註3)	March 2027 2027年3月	6x670t/h 6x670t/h

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
31	Supplementary Project for O&M and Gypsum Treatment of Yangcheng #1-6 units 陽城1-6#機組運維石膏處理 補充項目	Desulfurization 脫硫	May 2024 2024年5月	March 2025 2025年3月	6x350MW 6x350MW
32	Supplementary Project for O&M and Gypsum Treatment of Yangcheng #7-8 units 陽城7-8#機組運維石膏處理 補充項目	Desulfurization 脫硫	May 2024 2024年5月	March 2025 2025年3月	2x600MW 2x600MW
33	Contract for the O&M Project of Flue Gas Desulfurization and Denitrification of two 230 m ² Sintering Machine Heads in the Sintering Plant of Tianjin Xintian Steel United Special Steel Co., Ltd. 天津市新天鋼聯合特鋼有限公司 燒結廠2台230平米燒結機 頭煙氣脫硫脫硝運營維護項目	Desulfurization and denitrification 脫硫脫硝	From the date when the system passes the 168-hour trial operation 自系統168小時試運行合格之日起	A contract period of five years 5年合約期	2x230 m ² 2x230平方米
34	O&M and Contracting Project for Jingjiang Flue Gas Desulfurization and Dust Removal 靖江煙氣脫硫及除塵運維檢修 承包項目	Desulfurization and dust removal 脫硫及除塵	January 2024 2024年1月	December 2025 2025年12月	2x660MW 2x660MW
35	Operation and Cleaning Project for 2024-2025 Desulfurization System of SDIC Beijiang 國投北疆2024-2025年脫硫系統 運行及保潔項目	Desulfurization 脫硫	March 2024 2024年3月	December 2025 2025年12月	4x1,000MW 4x1,000MW

Notes:

- The owner's units suspended operation in October 2023. The times of the resumption of production and contract execution of the units are to be determined by the owner.
- The contract for the original transition period expired and a formal contract has been signed.
- The project is in a transitional period, and the specific beginning time of the service is subject to official notification from the owner.

附註：

- 業主機組於2023年10月暫停運行，機組復產及合同執行時間待業主確定。
- 原過渡期合約已完成，簽訂正式合約。
- 該項目處於過渡期，具體服務起始時間以業主正式通知為準。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

Investment

The Group's investment business comprises concession operation business model and operation of self-owned assets.

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 2024, the Group continued to carry out its concession operation business, including desulfurization, denitrification and green island. As of 30 June 2024, the Group accumulated 7 concession operation projects and save for Shanxi Puzhou Phase I BOT Project (Note 1), all of which have been put into operation smoothly, laying a strong foundation for the Group to operate continuously and develop steadily. The delivery of the assets of the Operation Project for Flue Gas Desulfurization and Denitrification of #1-2 Units of Yangxi Power Plant has been completed and transformed to the operation of self-owned assets, which brings long-term stable income for the Group.

The following table sets forth details of the investment projects of the Group under operation during the Reporting Period :

No.	Project name	Installed capacity	Type of project	Newly built/ Upgraded/ Asset acquisition	Total investment	Date of entering into contract	Expiry date of concession period
序號	項目名稱	裝機容量	項目類型	新建 / 改造 / 資產收購	投資總額 RMB million 人民幣百萬元	合同簽訂日期 (Month/Year) (年/月)	特許經營 期限屆滿日期 (Month/Year) (年/月)
1	Jiangxi Jinggangshan BOT Project	2×300MW+ 2×660MW	Desulfurization	Newly built	224	January 2008 (for Phase I) August 2008 (for Phase II)	July 2030 (for Phase I) December 2030 (for Phase II)
	江西井岡山BOT項目	2×300MW+ 2×660MW	脫硫	新建	224	2008年1月(一期) 2008年8月(二期)	2030年7月(一期) 2030年12月(二期)
2	Shanxi Hejin BOT Project	2×350MW	Denitrification	Newly built	122	June 2012	September 2033 (for Unit #1) May 2033 (for Unit #2)
	山西河津BOT項目	2×350MW	脫硝	新建	122	2012年6月	2033年9月(1號機組) 2033年5月(2號機組)

投資

本集團投資業務分為特許經營業務模式及自有資產運營。

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2024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2024年6月30日，本集團累計在執行7個特許經營項目，而除山西蒲州一期BOT項目(附註1)外，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。陽西電廠1-2號機組煙氣脫硫脫硝運營項目的資產已完成交割，轉變為自有資產運營，此項目為本集團帶來長久穩定收益。

於報告期內，本集團投運的投資項目詳情如下：

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

No.	Project name	Installed capacity	Type of project	Newly built/ Upgraded/ Asset acquisition	Total investment	Date of entering into contract	Expiry date of concession period
序號	項目名稱	裝機容量	項目類型	新建/改造/資產收購	投資總額 RMB million 人民幣百萬元	合同簽訂日期 (Month/Year) (年/月)	特許經營 期限屆滿日期 (Month/Year) (年/月)
3	Shanxi Puzhou Phase II BOT Project 山西蒲洲二期BOT項目	2x350MW	Desulfurization	Newly built	112	May 2014	End of 2037
4	Xinjiang Shenhua BOT Project 新疆神火BOT項目	4x350MW	Green Island	Upgraded	496	June 2017	End of 2032
5	Huainan Guqiao BOT Project 淮南顧橋BOT項目	2x330MW	Green Island	Upgraded	173	May 2018	End of 2033
6	Xinjiang Guotai Xinhua BOT Project 新疆國泰新華BOT項目	2x350MW	Green Island	Upgraded	150	July 2018	June 2028
7	Guangxi Laibin Desulfurization, Denitrification and Dust Removal BOO Project 廣西來賓脫硫脫硝除塵BOO項目	2x300MW	Green Island	Upgraded	308 (Note 2)	December 2018	End of 2033
8	Operation Project for Flue Gas Desulfurization and Denitrification of #1-2 Units of Yangxi Power Plant (Note 3) 陽西電廠1-2號機組煙氣脫硫脫硝運營項目(附註3)	2X660MW	Desulfurization and denitrification	Asset acquisition	154	October 2023	December 2039

Notes:

- Shanxi Puzhou Phase I BOT Project has been under negotiation stage for buy-back from the owner, and the related BOT business has been suspended.
- According to the requirements of the national policy, the denitrification technology direction has been changed from liquid ammonia to urea, which is expected to require an additional investment of RMB27 million.
- The asset delivery of the project was completed and the project has been transformed into an investment project.

附註：

- 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。
- 根據國家政策要求，脫硝技術線路由液氨改為尿素，預計新增人民幣27百萬元。
- 該項目已完成資產交割，已轉變為投資項目。

2.2 Water Treatment Business

During the Reporting Period, the Group's water treatment projects were in stable operation. Wastewater Zero Discharge Project for the Coking Plant of Tianjin Iron Works Co., Ltd., Sewage Treatment and Renovation EPC Project for Pulping and Paper Production of Shandong Bohui Paper Co., Ltd. and HRO Concentrated Water Recovery Project for Gansu Baili Jinchang Project have all entered the critical commissioning and delivery stage. The Engineering Project for Concentrated Water Salt Extraction Zero Discharge System of Lubao Industrial Park Sewage Treatment Center has obtained a 20-year operation period, laying a solid foundation for revenue from the Group's water treatment business.

2.2 水處理業務

報告期內，本集團各水處理項目穩定運行中。天津鐵廠有限公司焦化廠廢水零排放項目、山東博匯紙業股份有限公司制漿造紙污水處理改造EPC項目以及甘肅佰利聯金昌項目HRO濃水回收項目均已進入關鍵的調試與交付階段。潞寶工業園區污水處理中心濃水提鹽零排放系統工程項目中取得經營期20年，為本集團水處理業務收益打下了堅實的基礎。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

In the first half of 2024, the Group also stepped up its efforts in the development of projects with light asset model, in order to further expand its business scope and market space by optimizing resource allocation and improving operational efficiency. This strategic adjustment will help reduce operating risks, increase return on assets, and also inject new impetus into the Group's future sustainable development.

2024年上半年，本集團還加大了對輕資產模式項目的開發力度，通過優化資源配置、提高運營效率，以求進一步拓寬業務領域和市場空間。這種戰略調整將有助於降低經營風險，提升資產回報率，也為本集團未來的可持續發展注入了新的動力。

As of 30 June 2024, the Group has 12 water treatment projects in operation.

截至2024年6月30日，本集團在執行12個水處理項目。

During the Reporting Period, the water treatment business projects being implemented by the Group are as follows:

於報告期內，本集團在執行的水處理業務項目如下：

No. 序號	Project name 項目名稱	Type of project 項目類型	Date of entering into contract 合同簽訂時間 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)
1	Sewage Advanced Treatment and Recycle Project for Coking Wastewater/Sewage and Renewable Resource Utilization of Shanxi Lubao Industrial Park 山西潞寶工業園區焦化(污)水及再生資源化利用污水深度處理及回用項目	Asset acquisition 資產收購	June 2019 2019年6月	Equivalent to the service life of the assets of the sewage treatment center 等同污水處理中心資產使用壽命
2	Concentrated Water Advanced Treatment System Project of Lubao Industrial Park Sewage Treatment Center 潞寶工業園區污水處理中心濃水深度處理系統項目	Self-built 自建	November 2020 2020年11月	Equivalent to the service life of the assets of the sewage treatment center 等同污水處理中心資產使用壽命
3	Wastewater Zero Discharge Project for the Coking Plant of Tianjin Iron Works Co., Ltd. 天津鐵廠有限公司焦化廠廢水零排放項目	EPC	August 2021 2021年8月	N/A 不適用
4	Technical Service Project for Yakela Sewage Treatment Station of Sinopec Northwest Oilfield Branch 中石化西北油田分公司雅克拉採出水處理技術服務項目	O&M 運維	October 2021 2021年10月	February 2024 2024年2月
5	Domestic Sewage Treatment and Operation Commissioned Project of Xinjiang Northwest Oilfield Drilling Team 新疆西北油田鑽井隊生活污水處理生產運行委託項目	O&M 運維	January 2022 2022年1月	June 2024 2024年6月
6	Wastewater/Sewage Collection and Treatment Project of Changzhi Yuanyan Pharmaceutical Technology Co., Ltd. 長治市元延醫藥科技有限公司(廢)污水接納處理項目	O&M 運維	January 2022 2022年1月	December 2024 2024年12月

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	Date of entering into contract 合同簽訂時間 (Month/Year) (年/月)	Expiry date of service contract 服務合約屆滿日期 (Month/Year) (年/月)
7	Sewage Treatment and Renovation EPC Project for Pulping and Paper Production of Shandong Bohui Paper Co., Ltd. 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	April 2022	N/A
8	Supplementary Agreement for Wastewater Zero Discharge Project of Coking Plant of Tianjin Iron Works Co., Ltd. 天津鐵廠有限公司焦化廠廢水零排放項目補充協議	EPC	January 2023	N/A
9	Engineering Project for Concentrated Water Salt Extraction Zero Discharge System of Lubao Industrial Park Sewage Treatment Center 潞寶工業園區污水處理中心濃水提鹽零排放系統工程項目	BOO	August 2023	20 years from the date of completion of performance acceptance
10	System Project for Production and Operation Technical Transformation Project of Sewage Treatment SS reduction (Suspended Solids Concentration) in 2023 of Yunnan Yunjing Lin Paper Co., Ltd. 雲南雲景林紙股份有限公司2023年生產經營性技改項目污水處理降低SS (固體懸浮物濃度)系統項目	EPC	August 2023	N/A
11	External Drainage Deep Treatment Project Supporting for the Iron Sulfur Titanium Project of Inner Mongolia Guocheng Resources Comprehensive Utilization Co., Ltd. 內蒙古國城資源綜合利用有限公司硫鈦鐵項目配套外排水深度處理項目	EPC+O&M	August 2023	The term of O&M is 9 years after EPC completion
12	HRO Concentrated Water Recovery Project for Gansu Baili Jinchang Project 甘肅佰利聯金昌項目HRO濃水回收項目	EPC	October 2023	N/A
		EPC	2023年10月	不適用

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, focusing on large-scale industrial production enterprises and relying on profound experience on project operation and simple and convenient integrated equipment systems, the construction of the first phase of the Cement Kiln Co-processing Hazardous and Solid Waste Treatment Project of Tangshan Yandong has been completed and a hazardous waste management license has been successfully obtained; the disposal business of the Hazardous and Solid Waste Treatment and Disposal Center of Qinghai Boqi has been operating stably and bringing sustainable income to the Group, and the waste packaging and waste photovoltaic panel resource recycling project is currently under construction.

2.4 Dual-Carbon New Energy+ Business

During the Reporting Period, the Group continued to promote the layout of its new energy+ business, and the operating projects were progressing smoothly and bringing stable income for the Group. In January 2024, the Group entered into the EPC General Contracting Project for the 20.64MWp Distributed Photovoltaic Power Generation Project of Enjie New Energy in Jinwan District, Zhuhai City, to promote the further development of the Group's photovoltaic project business. In March 2024, the Group entered into the Coke Dry Quenching (CDQ) Waste Heat Utilization Contract of Xinyang, marking another major breakthrough for the Group in the field of CDQ waste heat utilization.

2.3 危固廢處理處置業務

於報告期內，圍繞大型工業生產企業，以深厚的項目運營經驗和簡便的集成裝備系統為依託，本集團的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並成功辦理了危險廢物經營許可證；青海博奇危固廢處理處置中心處置業務穩定運行，為本集團帶來持續性收入，廢舊包裝物及廢舊光伏板資源化項目正在建設中。

2.4 雙碳新能源+業務

報告期內，本集團持續推進新能源+業務佈局，在執行項目穩定運營，為本集團帶來穩定收益；於2024年1月，簽訂珠海市金灣區恩捷新能源20.64MWp分佈式光伏發電項目EPC總承包項目，促進本集團光伏項目業務的進一步發展。於2024年3月，簽訂信陽干熄焦餘熱利用合同，標誌著本集團在干熄焦餘熱利用領域又一大突破。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

During the Reporting Period, the dual-carbon new energy+ business projects implemented by the Group are as follows:

於報告期內，本集團在執行的雙碳新能+業務項目如下：

No.	Project name	Type of project	Date of entering into contract	Expiry date of service contract
序號	項目名稱	項目類型	合同簽訂時間 (Month/Year) (年/月)	屆滿日期 (Month/Year) (年/月)
1	Equipment Supply Project for Dry Quenching Coke Waste Heat Power Generation of Shanxi Dongyi Coal Power and Aluminum Group Coal Chemical Co., Ltd. 山西東義煤電鋁集團煤化工有限公司干熄焦餘熱發電設備供貨項目	EP	November 2021	N/A
2	BOT Project for Dry Quenching Works of Tianjin Iron Works Co., Ltd. 天津鐵廠有限公司干熄焦工程BOT項目	BOT	July 2022	July 2032
3	EPC General Contracting Project for 300MW Distributed Photovoltaic of Zhejiang Post 浙江郵政300MW分布式光伏EPC總承包項目	EPC	April 2023	N/A
4	Wuxi Photovoltaic Project <i>(Note)</i> 無錫光伏項目 <i>(附註)</i>	Acquisition of equity interest 股權收購	May 2023	N/A
5	EPC General Contracting Project for Technical Transformation of Thermal Storage Joint Frequency Modulation Energy Storage of China Resources Qiaokou Power Plant 華潤橋口電廠火儲聯合調頻儲能項目技改工程EPC總承包項目	EPC	December 2023	N/A
6	EPC General Contracting Project for 20.64MWp Distributed Photovoltaic Power Generation of Enjie New Energy in Jinwan District, Zhuhai City 珠海市金灣區恩捷新能源20.64MWp分布式光伏發電項目EPC總承包項目	EPC	January 2024	N/A
7	O&M General Contracting Project for Supporting 2×150t/h CDQ Unit of Coke Power Project of Xinyang Iron and Steel Jingang Energy Co., Ltd. 信陽鋼鐵金港能源有限公司焦電工程項目配套2×150t/h干熄焦裝置運維總承包項目	O&M 運維	March 2024	December 2034
8	EPC General Contracting Project for 0.4991MW Distributed Photovoltaic of Chongqing Ouruo Furniture Co., Ltd. 重慶歐若家具有限公司0.4991MW分布式光伏EPC總承包項目	EPC	June 2024	N/A

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

Note: The assets of the seven distributed photovoltaic projects acquired in May 2023 have a total installed capacity of approximately 21MW. As of 30 June 2024, three new contracts for photovoltaic project have been signed, with a total installed capacity of approximately 2.69MW.

附註： 2023年5月收購的7個分佈式光伏項目資產，總裝機容量約21MW。截至2024年6月30日，新簽3個光伏項目合同，總裝機容量約2.69MW。

3. FINANCIAL POSITION AND OPERATING RESULTS

In the first half of 2024, affected by the downward pressure on the domestic economy, operations of enterprises faced tests and challenges. However, with the continued launch of national macroeconomic policies, the Group continued to pursue new development on the basis of the stable operation of its existing business, and actively expand the market to ensure the sustainability and stability of its overall business development. The Group's production and operations declined slightly in the first half of 2024, but its asset structure has remained in sound condition.

Revenue

For the six months ended 30 June 2024, the Group's total revenue was RMB949 million, representing a decrease of 5.2% from RMB1,001 million for the first half of 2023, which was mainly because (i) certain existing projects were basically completed or entering the final stage of construction; and (ii) new projects were mostly concentrated in the power industry, which have long construction cycles and revenue recognition is relatively slow. The combined effect of the above factors has led to an overall decline in revenue.

3. 財務狀況及經營業績

2024年上半年，受國內經濟下行壓力影響，企業經營面臨考驗和挑戰，但在國家宏觀政策持續釋放下，本集團在現有的業務穩定經營的基礎上，持續不斷尋求新的發展方向，積極拓展市場，以保證整體發展的持續和穩定，2024年上半年本集團的生產經營情況略有下滑，但資產結構狀況保持良好。

收入

截至2024年6月30日止六個月，本集團的收入總額為人民幣949百萬元，較2023年上半年的人民幣1,001百萬元減少5.2%，主要由於(i)部分存量工程項目基本完工或進入尾工期；及(ii)新增工程項目多集中在電力行業，工程周期較長，收入確認相對緩慢。綜合導致收入總體有所下降。

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 business, (ii) water treatment business; (iii) hazardous and solid waste treatment/disposal business; and (iv) dual carbon new energy+ 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)煙氣治理業務；(ii)水處理業務；(iii)危固廢處理處置業務；及(iv)雙碳新能源+業務。下表載列本集團於所示期間按分部劃分的收入明細。

		Segment revenue	
		分部收益	
		For the six months ended 30 June	
		截止6月30日止六個月	
		2024	2023
		2024年	2023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	741,566	780,256
EPC	EPC	221,640	300,927
O&M	運維	248,091	236,750
Investment	投資	268,132	236,476
Of which: Construction	其中：建造	6,424	10,049
Operation	運營	261,708	226,427
Others	其他	3,703	6,103
Water treatment business	水處理業務	89,849	162,432
Hazardous and solid waste treatment/ disposal business	危固廢處理處置業務	22,146	13,766
Dual-carbon new energy+ business	雙碳新能源+業務	95,854	44,232
Total	總計	949,415	1,000,686

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, revenue generated from the Group's flue gas treatment business segment was as follows:

- Revenue from EPC business was RMB221 million, representing a decrease of 26.6% as compared with RMB301 million for the first half of 2023, mainly because (i) certain existing projects were basically completed or entering the final stage of construction; and (ii) new projects were mostly concentrated in the power industry, which have long construction cycles and revenue recognition is relatively slow, resulting in a decrease in revenue as compared with the same period last year;
- Revenue from O&M business was RMB248 million, representing an increase of 4.6% as compared with RMB237 million for the first half of 2023, mainly due to market expansion and the increase in the scale of O&M business during the Reporting Period; and
- Revenue from investment business was RMB268 million, representing an increase of 13.6% from RMB236 million for the first half of 2023, mainly due to the addition of O&M business of self-owned assets.

For the six months ended 30 June 2024, revenue from water treatment business segment of the Group was RMB90 million, representing a decrease of 44.8% as compared with RMB163 million for the first half of 2023, mainly because EPC projects for water treatment business were basically completed during the Reporting Period, resulting in a decrease in revenue.

截至2024年6月30日止六個月，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221百萬元，較2023年上半年的人民幣301百萬元減少26.6%，主要由於(i)部分存量項目基本完工或進入尾工期；及(ii)新增工程項目多集中在電力行業，工程周期較長，收入確認相對緩慢，導致收入較去年減少；
- 運維業務的收入為人民幣248百萬元，較2023年上半年的人民幣237百萬元增加4.6%，主要由於市場拓展，報告期內運維業務規模增加所致；及
- 投資業務的收入為人民幣268百萬元，較2023年上半年的人民幣236百萬元增加13.6%，主要由於新增了自有資產運營業務所致。

截至2024年6月30日止六個月，本集團水處理業務分部的收入為人民幣90百萬元，較2023年上半年的人民幣163百萬元減少44.8%，主要由於報告期內水處理業務EPC項目已基本完工，導致收入減少。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, the Group's hazardous and solid waste treatment/disposal business segment recorded a revenue of RMB22 million, representing an increase of 57.1% as compared with RMB14 million for the first half of 2023, mainly due to the increase in the disposal volume of hazardous and solid waste business during the Reporting Period.

For the six months ended 30 June 2024, revenue from the Group's dual-carbon new energy+ business segment was RMB96 million, representing an increase of 118.2% from RMB44 million for the first half of 2023, mainly due to the increase of business scale resulting from active market expansion during the Reporting Period.

Cost of Sales and Services

For the six months ended 30 June 2024, the Group's cost of sales and services was RMB750 million, representing a decrease of 6.0% as compared with RMB798 million for the first half of 2023, mainly because (i) certain existing projects were basically completed or entering the final stage of construction; and (ii) new projects were mostly concentrated in the power industry, which have long construction cycles and cost recognition is relatively slow. The combined effect of the above factors has led to an overall decrease in costs.

截至2024年6月30日止六個月，本集團危固廢處理處置業務分部的收入為人民幣22百萬元，較2023年上半年的人民幣14百萬元增加57.1%，主要由於報告期內危固廢業務處置量增加所致。

截至2024年6月30日止六個月，本集團雙碳新能源+業務分部的收入為人民幣96百萬元，較2023年上半年的人民幣44百萬元增加118.2%，主要由於報告期內積極開拓市場，業務規模增加所致。

銷售及服務成本

截至2024年6月30日止六個月，本集團的銷售及服務成本為人民幣750百萬元，較2023年上半年的人民幣798百萬元減少6.0%，主要由於(i)部分存量項目基本完工或進入尾工期；及(ii)新增工程項目多集中在電力行業，工程周期較長，成本確認相對緩慢。綜合導致成本總體有所下降。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, 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 RMB212 million, representing a decrease of 26.1% as compared with RMB287 million for the first half of 2023, mainly because (i) certain existing projects were basically completed or entering the final stage of construction; and (ii) new projects were mostly concentrated in the power industry, which have longer construction cycles and cost recognition is relatively slow;
- The cost of sales and services for O&M business amounted to RMB190 million, representing an increase of 9.2% as compared with RMB174 million for the first half of 2023, mainly due to (i) the increase in the number and business volume of O&M business projects; and (ii) the year-on-year increase in labor costs; and
- The cost of sales and services for investment business amounted to RMB189 million, representing an increase of 13.2% as compared with RMB167 million for the first half of 2023, mainly due to the addition of O&M business of self-owned assets.

For the six months ended 30 June 2024, the cost of sales and services for water treatment business amounted to RMB66 million, representing a decrease of 50.0% from RMB132 million for the first half of 2023, mainly because the EPC projects for water treatment business were basically completed during the Reporting Period, resulting in a decrease in cost.

截至2024年6月30日止六個月，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212百萬元，較2023年上半年的人民幣287百萬元減少26.1%，主要由於(i)部分存量工程項目基本完工或進入尾工期；及(ii)新增工程項目多集中在電力行業，工程周期較長及成本確認相對緩慢；
- 運維業務的銷售及服務成本為人民幣190百萬元，較2023年上半年的人民幣174百萬元增加9.2%，主要由於(i)運維業務項目數量及業務量增加；及(ii)人工成本同比增加；及
- 投資業務的銷售及服務成本為人民幣189百萬元，較2023年上半年的人民幣167百萬元增加13.2%，主要由於新增了自有資產運營業務所致。

截至2024年6月30日止六個月，水處理業務的銷售及服務成本為人民幣66百萬元，較2023年上半年的人民幣132百萬元減少50.0%，主要由於報告期內水處理業務EPC項目已基本完工，成本減少。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, the cost of sales and services for hazardous and solid waste treatment/disposal business was RMB15 million, representing an increase of 66.7% from RMB9 million for the first half of 2023, mainly due to (i) the increase in the disposal volume of hazardous and solid waste; and (ii) newly operated projects, which led to the increase in cost.

For the six months ended 30 June 2024, the cost of sales and services for dual-carbon new energy⁺ was RMB78 million, representing an increase of 169.0% from RMB29 million for the first half of 2023, mainly due to the increase of business scale resulting from active market expansion during the Reporting Period.

Gross Profit and Gross Profit Margin

For the six months ended 30 June 2024, the Group's gross profit was RMB199 million, representing a decrease of 1.5% from RMB202 million for the first half of 2023, and the gross profit margin was 21.0%, representing an increase of 0.8 percentage point as compared to the first half of 2023. The year-on-year decrease in gross profit was mainly because (i) certain existing projects were basically completed or entering the final stage of construction; (ii) new projects were mostly concentrated in the power industry, which have long construction cycles and revenue and cost recognition is relatively slow; and (iii) newly added O&M projects had a lower gross profit margin and labor costs increased, resulting in a decrease in gross profit.

截至2024年6月30日止六個月，危固廢處理處置業務的銷售及服務成本為人民幣15百萬元，較2023年上半年的人民幣9百萬元增加66.7%，主要由於(i)危固廢業務處置量增加；及(ii)新投運項目導致成本增加。

截至2024年6月30日止六個月，雙碳新能源⁺業務的銷售及服務成本為人民幣78百萬元，較2023年上半年的人民幣29百萬元增加169.0%，主要由於報告期內積極開拓市場，業務規模增加所致。

毛利及毛利率

截至2024年6月30日止六個月，本集團的毛利為人民幣199百萬元，較2023年上半年的人民幣202百萬元減少1.5%，毛利率為21.0%，較2023年上半年增加0.8個百分點。毛利潤同比減少主要由於(i)部分存量項目基本完工或進入尾工期；(ii)新增工程項目多集中在電力行業，工程周期較長，收入成本確認相對緩慢；及(iii)新增運維項目毛利率降低及人工成本增加，導致毛利減少。

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 segments 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：

		For the six months ended 30 June 2024 截至2024年6月30日止六個月		For the six months ended 30 June 2023 截至2023年6月30日止六個月	
		Gross Profit 毛利 RMB'000 人民幣千元	Gross Profit Margin 毛利率 %	Gross Profit 毛利 RMB'000 人民幣千元	Gross Profit Margin 毛利率 %
Flue Gas Treatment Business	煙氣治理業務	150,108		151,846	
EPC	EPC	10,059	4.5	13,275	4.4
O&M	運維	57,864	23.3	63,123	26.7
Investment	投資	78,482	29.3	69,345	29.3
Of which: Construction	其中：建造	26	0.4	112	1.1
Operation	運營	78,456	30.0	69,233	30.6
Others	其他	3,703	100.0	6,103	100.0
Water Treatment Business	水處理業務	24,022	26.7	30,228	18.6
Hazardous and Solid Waste Treatment/Disposal Business	危固廢處理處置業務	6,700	30.3	4,986	36.2
Dual-Carbon New Energy+ Business	雙碳新能源+業務	18,440	19.2	15,045	34.0
Total	總計	199,270	21.0	202,105	20.2

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, the gross profit of the Group's flue gas treatment business segment was as follows:

- The gross profit of EPC business was RMB9 million, representing a decrease of 35.7% as compared with RMB14 million for the first half of 2023, mainly because (i) certain existing projects were basically completed or entering the final stage of construction; and (ii) new projects were mostly concentrated in the power industry, and revenue and cost recognition is relatively slow, resulting in a decrease in gross profit;
- The gross profit of the O&M business was RMB58 million, representing a decrease of 7.9% as compared with RMB63 million for the first half of 2023, mainly due to (i) the decrease in gross profit margin of new projects in the face of intensified market competition; and (ii) the increase in labor costs; and
- The gross profit of the investment business amounted to RMB79 million, representing an increase of 14.5% as compared with RMB69 million for the first half of 2023, mainly due to (i) the addition of O&M business for self-owned assets; and (ii) the decrease in maintenance cost for certain projects as compared with the same period last year, resulting in an increase in gross profit.

截至2024年6月30日止六個月，本集團煙氣治理業務分部的毛利如下：

- EPC業務的毛利為人民幣9百萬元，較2023年上半年的人民幣14百萬元減少35.7%，主要由於(i)部分存量工程項目基本完工或進入尾工期；及(ii)新增工程項目多集中在電力行業，收入成本確認相對緩慢，導致毛利減少；
- 運維業務的毛利為人民幣58百萬元，較2023年上半年的人民幣63百萬元減少7.9%，主要由於(i)市場競爭加劇，新增項目毛利率降低；及(ii)人工成本增加；及
- 投資業務的毛利為人民幣79百萬元，較2023年上半年的人民幣69百萬元增加14.5%，主要由於(i)新增了自有資產運營業務；及(ii)部分項目相較去年同期檢修成本減少，導致毛利增加。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, the gross profit of the Group's water treatment business segment amounted to RMB24 million, representing a decrease of 20.0% as compared with RMB30 million for the first half of 2023, mainly because the EPC projects for water treatment business were basically completed during the Reporting Period, resulting in a decrease in gross profit.

For the six months ended 30 June 2024, the gross profit of the Group's hazardous and solid waste treatment/disposal business segment was RMB7 million, representing an increase of 40.0% as compared with RMB5 million for the first half of 2023, mainly due to the increase in the disposal volume of hazardous and solid waste.

For the six months ended 30 June 2024, the gross profit of the Group's dual-carbon new energy+ business segment was RMB18 million, representing an increase of 20.0% from RMB15 million for the first half of 2023, mainly due to the increase of business scale resulting from active market expansion.

截至2024年6月30日止六個月，本集團水處理業務分部的毛利為人民幣24百萬元，較2023年上半年的人民幣30百萬元減少20.0%，主要由於報告期內水處理業務EPC項目已基本完工，導致毛利減少。

截至2024年6月30日止六個月，本集團危固廢處理處置業務分部的毛利為人民幣7百萬元，較2023年上半年的人民幣5百萬元增加40.0%，主要由於危固廢業務處置量增加所致。

截至2024年6月30日止六個月，本集團雙碳新能源+業務分部的毛利為人民幣18百萬元，較2023年上半年的人民幣15百萬元增加20.0%，主要由於本報告期內積極開拓市場，業務規模增加所致。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

Other Income and Gains and Other Expenses and Losses

For the six months ended 30 June 2024, other income and gains and other expenses and losses consist primarily of interest income, government grants and rental income.

The following table sets forth a breakdown of other income and gains and other expenses and losses for the periods stated:

其他收入及收益和其他費用及損失

截至2024年6月30日止六個月，其他收入及收益和其他費用及損失主要包括利息收入、政府補助及租金收入等。

下表載列我們於所列期間的其他收入及收益和其他費用及損失的明細：

		For the six months ended 30 June 2024 截至2024年 6月30日止六個月 RMB'000 人民幣千元	For the six months ended 30 June 2023 截至2023年 6月30日止六個月 RMB'000 人民幣千元
Interest income	利息收入	3,189	4,058
Government grants	政府補助	5,324	10,992
Rental income, net	租金收入淨值	(109)	(166)
Foreign exchange (losses)/gains	外匯(虧損)/收益	(245)	4,355
Gain on disposal of equity investments at FVTPL	按公允價值計入損益的股本投資之處置收益	-	5,046
Gain on disposal of property, plant and equipment	出售物業、廠房及設備收益	511	3,728
Others	其他	1,845	(218)
		10,515	27,795

For the six months ended 30 June 2024, the Group's other income and gains and other expenses and losses amounted to a gain of RMB11 million, representing a decrease of RMB17 million from RMB28 million for the first half of 2023, mainly due to (i) the decrease in government grants and foreign exchanges gains; and (ii) the decrease in investment income of financial assets at fair value through profit or loss.

截至2024年6月30日止六個月，本集團其他收入及收益和其他費用及損失的收益為人民幣11百萬元，較2023年上半年的人民幣28百萬元減少人民幣17百萬元，主要是(i)政府補助及外匯收益減少；及(ii)按公允價值計量且其變動計入損益的金融資產的投資收益減少。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

Selling and Distribution Expenses

For the six months ended 30 June 2024, the Group's selling and distribution expenses were RMB10 million, representing a decrease of RMB1 million from RMB11 million for the first half of 2023, basically stable as compared with last year.

Administrative Expenses

For the six months ended 30 June 2024, the Group's administrative expenses amounted to RMB48 million, representing an increase of RMB6 million from RMB42 million for the first half of 2023, and the ratio of administrative expenses to revenue increased from 4.2% for the same period last year to 5.1%, which was mainly due to (i) the increase in leasing expenses and labor costs; and (ii) the increase in administrative expenses because of the addition of new operating entities.

Research and Development (“R&D”) Expenses

For the six months ended 30 June 2024, the Group's R&D expenses amounted to RMB24 million, remaining unchanged as compared to RMB24 million for the first half of 2023, and the ratio of R&D expenses to revenue increased from 2.4% for the same period last year to 2.5%.

Finance Costs

The Group's finance costs consisted of interest expenses on bank and other borrowings, lease liabilities and discounted bills payable. For the six months ended 30 June 2024, the Group's finance costs were RMB8 million, representing an increase of RMB1 million from RMB7 million for the first half of 2023, mainly due to the increase of borrowing by the Group in line with the investment on projects during the Reporting Period.

銷售及分銷開支

截至2024年6月30日止六個月，本集團銷售及分銷開支為人民幣10百萬元，較2023年上半年人民幣11百萬元減少人民幣1百萬元，與上年基本持平。

行政開支

截至2024年6月30日止六個月，本集團的行政開支為人民幣48百萬元，較2023年上半年人民幣42百萬元增加人民幣6百萬元，行政開支佔收入比率由上年同期的4.2%增加至5.1%，主要由於(i)租賃費用及人工成本增加；及(ii)新增經營實體導致管理費用增加。

研發開支

截至2024年6月30日止六個月，本集團的研發開支為人民幣24百萬元，較2023年上半年人民幣24百萬元持平，研發開支佔收入比率由上年同期的2.4%增加至2.5%。

財務成本

本集團的財務成本為銀行借款及其他借款、租賃負債和應付票據貼現的利息開支。截至2024年6月30日止六個月，本集團的財務成本為人民幣8百萬元，較2023年上半年人民幣7百萬元增加人民幣1百萬元，主要由於本集團報告期內為配合項目投資增加借款所致。

Gearing Ratio

The gearing ratio is calculated as a percentage of the Group's total liabilities over the Group's total assets. As of 30 June 2024, the Group's gearing ratio was 37.5%, dropped by 1.4 percentage points from 38.9% as of 31 December 2023.

Income Tax Expenses

The income tax expenses of the Group for the six months ended 30 June 2024 were RMB12 million, increased by 20.0% from RMB10 million for the first half of 2023, mainly due to tax rebates for special environmental protection equipment in the previous year in accordance with the national tax preferential policies.

Profit for the Reporting Period

For the six months ended 30 June 2024, the Group recorded a profit of RMB116 million for the period, representing a decrease of RMB20 million from RMB136 million for the first half of 2023, mainly due to (i) the decrease in share of profit of associates and government grants; and (ii) the decrease in the gains on disposal of financial assets at fair value through investment gains.

Profit Attributable to the Owners of the Company

Profit attributable to the owners of the Company was RMB114 million for the six months ended 30 June 2024, representing a decrease of RMB20 million from RMB134 million for the first half of 2023.

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。截至2024年6月30日止六個月，本集團的資產負債比率為37.5%，較2023年12月31日38.9%下降了1.4個百分點。

所得稅開支

本集團於截至2024年6月30日止六個月的所得稅開支為人民幣12百萬元。較2023年上半年的人民幣10百萬元增加20.0%，主要由於上年度環保專用設備根據國家稅收優惠政策退稅所致。

報告期內溢利

截至2024年6月30日止六個月，本集團期內溢利為人民幣116百萬元，較2023年上半年人民幣136百萬元減少了人民幣20百萬元，主要由於本集團(i)分佔聯營公司溢利及政府補助收益減少；及(ii)公允價值變動計入投資收益的金融資產處置收益減少。

本公司擁有人應佔溢利

截至2024年6月30日止六個月歸屬於本公司擁有人的利潤為人民幣114百萬元，較2023年上半年人民幣134百萬元減少了人民幣20百萬元。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

Cash Flows

The following table sets forth the cash flow position of the Group in the first half of 2024 and the first half of 2023:

現金流量

下表載列本集團於2024年上半年及2023年上半年的現金流量狀況：

		For the six months ended 30 June 2024 截至2024年 6月30日止六個月 (RMB '000) (人民幣千元)	For the six months ended 30 June 2023 截至2023年 6月30日止六個月 (RMB '000) (人民幣千元)
Net cash generated from/(used in) operating activities	經營活動所得／(所用)現金淨額	33,337	(105,966)
Net cash (used in) investing activities	投資活動(所用)現金淨額	(126,713)	(25,100)
Net cash generated from/(used in) financing activities	融資活動所得／(所用)現金淨額	90,518	(50,399)
<hr/>			
Net decrease in cash and cash equivalents	現金及現金等價物減少淨額	(2,858)	(181,465)

For the six months ended 30 June 2024, the Group's bank balances and cash amounted to RMB346 million, representing a decrease of RMB3 million as compared with RMB349 million at the beginning of 2024, basically stable as compared to the beginning of 2024.

截至2024年6月30日止六個月，本集團的銀行結餘及現金為人民幣346百萬元，較2024年年初人民幣349百萬元減少人民幣3百萬元，與2024年年初基本持平。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

For the six months ended 30 June 2024, we had net cash generated from operating activities of RMB33 million, representing a year-on-year increase of RMB139 million. The change was mainly attributable to the increased efforts on collection of receivables during the Reporting Period.

For the six months ended 30 June 2024, we had net cash used in investing activities of RMB127 million, representing a year-on-year increase of RMB102 million. Such change was mainly attributable to the increase in investment and transformation expenditures and the increase in deposits paid on asset acquisitions during the Reporting Period as compared with the same period last year.

For the six months ended 30 June 2024, we had net cash generated from financing activities of RMB91 million, representing a period-on-period increase of RMB141 million. The change was mainly attributable to the increase in bank and other borrowings in line with the expenditures on project investment.

Capital Expenditure

The capital expenditure of the Group mainly comprises the expenditures on the acquisition and construction of investment projects as well as equity investment. For the first half of 2024, the total capital expenditure of the Group was RMB111 million, representing an increase of RMB94 million as compared with RMB17 million for the same period last year.

截至2024年6月30日止六個月，我們經營活動所得的現金淨額為人民幣33百萬元，同比增加人民幣139百萬元，變動主要是由於報告期內加強應收款催收力度所致。

截至2024年6月30日止六個月，我們投資活動使用的現金淨額為人民幣127百萬元，同比增加人民幣102百萬元，變動主要是由於報告期較去年同期投資改造支出及就收購資產支付的按金增加所致。

截至2024年6月30日止六個月，我們融資活動所得的現金淨額為人民幣91百萬元，同比增加人民幣141百萬元，變動主要是由於配合項目投資支出增加銀行借款及其他借款導致。

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2024年上半年，本集團的資本開支總額為人民幣111百萬元，較上年同期的人民幣17百萬元增加人民幣94百萬元。

Management Discussion and Analysis (Continued)

管理層討論與分析 (續)

Pledge of the Group's Assets

As of 30 June 2024, the Group's bank borrowings of RMB48 million were secured by mortgage of certain properties and land use rights owned by the Group.

Jinggangshan Boqi Environmental Technology Co., Ltd. (江西井岡山博奇環保科技有限公司) (“**Jinggangshan Boqi**”), a subsidiary of the Group, as the lessee, had entered into a finance lease arrangement (the “**Jinggangshan Finance Lease Agreement**”) with CITIC Financial Leasing Co., Ltd. (“**CITIC Leasing**”). Beijing Boqi Electric Power SCI-TECH Co., Ltd. (北京博奇電力科技有限公司) (“**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 Jinggangshan Finance Lease Agreement.

Handan Boqi Environmental Technology Co., Ltd. (邯鄲博奇環保科技有限公司) (“**Handan Boqi**”), a subsidiary of the Group, as the lessee, had entered into a finance lease arrangement (the “**Handan 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 Handan Finance Lease Agreement.

Changjizhou Boqi Environmental Technology Co., Ltd. (昌吉州博奇環保科技有限公司) (“**Changjizhou Boqi**”), a subsidiary of the Group, as the lessee, had entered into a finance lease arrangement (the “**Changjizhou Finance Lease Agreement**”) with CITIC Financial Leasing Co., Ltd. (“**CITIC Leasing**”). Beijing Boqi had pledged all its equity interests in Changjizhou Boqi and the service fee receivables under the Changjizhou Boqi service concession agreement to CITIC Leasing to guarantee its liabilities under the Changjizhou Finance Lease Agreement.

本集團資產抵押

於2024年6月30日，本集團銀行借款中人民幣48百萬元以擁有的部分房產及土地使用權提供抵押擔保。

本集團的附屬公司江西井岡山博奇環保科技有限公司(「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(「井岡山融資租賃協議」)。北京博奇電力科技有限公司(「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，以擔保井岡山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(「邯鄲融資租賃協議」)。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，以擔保邯鄲融資租賃協議項下的責任。

本集團的附屬公司昌吉州博奇環保科技有限公司(「昌吉州博奇」)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(「昌吉州融資租賃協議」)。北京博奇將其持有的昌吉州博奇的全部股權及昌吉州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，以擔保昌吉州融資租賃協議項下的責任。

Contingent Liabilities

As of 30 June 2024, the Group did not have any material contingent liabilities.

Significant Investments Held, Material Acquisitions and Disposals

During the Reporting Period, neither the Group held any significant investments, nor was there any material acquisition and disposal of subsidiaries and associated companies.

No Material Changes

Save as disclosed in this interim report, during the Reporting Period, there were no material changes affecting the Group's performance that needs to be disclosed under Paragraphs 32 and 40(2) of Appendix D2 to the Listing Rules.

Future plans for material investments and capital assets

As of 30 June 2024, the Group did not have other plans for material investments and capital assets. The Group will continue to monitor the industry closely and review its business expansion plans regularly, so as to take necessary measures in the Group's best interests.

或有負債

於2024年6月30日，本集團並無任何重大或有負債。

所持重大投資、重大收購及出售

本集團在報告期概無持有重大投資，亦無重大附屬公司及聯營公司收購或處置事項。

無重大變動

除本中期報告披露者外，於報告期內，概無影響本集團表現的重大變動需根據上市規則附錄D2第32段及第40(2)條予以披露。

有關重大投資及資本資產的未來計劃

於2024年6月30日，本集團並無有關重大投資及資本資產的其他計劃。本集團將繼續密切和定期檢討其業務擴展計劃，從而採取符合本集團最佳利益的必要措施。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

4. THE GROUP'S FUTURE OUTLOOK

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 dual-carbon new energy+" as our dual development path, with a focus on advantageous industries and subdivided sectors. Through five years of development, the Group has formed three development channels of "existing business, emerging business and exploring business", and gradually realizes the development pattern of the integration of the four business segments, "gas, water, solid and dual-carbon new energy+", striving to develop into a highly competitive domestic first-class trident platform comprising "environmental protection and dual-carbon management platform, O&M service technology platform and capital investment and financing platform".

4. 本集團未來展望

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、雙碳新能源+」兩大板塊雙發展通道，聚焦優勢行業，專注細分領域，通過五年的發展，形成『存量業務、新興業務、探索業務』三個發展通道，逐步實現『氣·水·固·雙碳新能源+』四位一體的發展格局，致力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。

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.

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.

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。憑藉現有項目的技術和經驗，穩固煙氣治理業務規模，形成本集團「基本盤」，為本集團轉型提供有效支撐；加大對水處理業務的資源投入，積極開拓危固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，依託本集團發展戰略，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。

持續推進精細管理，優化人力保障。加強本集團體系建設，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。

Management Discussion and Analysis (Continued)

管理層討論與分析(續)

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.

Leveraging the power of the capital market, the Group will strive to realize industrial transformation and upgrading. 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 Group 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.

堅持創新驅動發展，加大研發力度。在「碳達峰•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。

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。圍繞本集團發展戰略，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。

Major Events in the First Half of 2024 2024年上半年大事記

1. In March 2024, the Group entered into the CDQ Waste Heat Utilization Contract of Xinyang, marking another major breakthrough for the Group in the field of CDQ waste heat utilization.
1. 2024年3月，本集團簽訂信陽干熄焦餘熱利用合同，標誌着本集團在干熄焦餘熱利用領域又一大突破。



Major Events in the First Half of 2024 (Continued)

2024年上半年大事記(續)

- In March 2024, the groundbreaking ceremony for the Desulfurization EPC Project for the 2×1000MW Coal-Electricity Integrated Expansion Project of Zhunda Power Plant of Inner Mongolia Energy Group undertaken by the Group was grandly held. This project is another important progress for us in the energy field of Inner Mongolia and provides a great opportunity for the Group to establish a brand image in the region.
- 2024年3月，由本集團承建的內蒙古能源集團准大電廠2×1000MW煤電一體化擴建項目脫硫EPC工程開工儀式隆重舉行。這一項目是我們在內蒙古能源領域的又一重要進展，為本集團在該地區樹立品牌形象提供了寶貴機遇。



Major Events in the First Half of 2024 (Continued)

2024年上半年大事記(續)

3. On 16 April 2024, Beijing Boqi, a wholly-owned subsidiary of the Group, was recognized by the Beijing Municipal Bureau of Economy and Information Technology as the “Beijing High-End Industrial Design Center in 2023” in the category of corporate industrial design centers. The Group has always been committed to the research and development of environmental protection technology, and its technical strength and innovation capabilities have been widely recognized by the industry.
3. 2024年4月16日，本集團全資附屬公司北京博奇被北京市經濟和信息化局認定為「2023年度北京高精尖產業設計中心」，認定類別為企業工業設計中心。本集團一直致力於環保科技的研究與發展，其技術實力和創新能力受到業界廣泛認可。
4. In May 2024, the Group, as an active participant and innovative practitioner in the environmental protection industry, was once again accredited as the “Benchmark Enterprise for Comprehensive and Efficient Energy Governance in the Environmental Protection Field in 2023” and the “Leading Enterprise in the Atmospheric Governance Industry in 2023”. The awards granted to the Group not only recognize its professional contribution, but also reflect the Group’s far-reaching influence in the field of environmental protection, as well as inspire us to continue our unremitting efforts in technological innovation and service improvement.
4. 2024年5月，本集團作為環保行業的積極參與者和創新實踐者，再次榮獲「2023年度環保領域綜合能效治理標桿企業」與「2023年度大氣治理行業領軍企業」。本集團的獲獎不僅是對其專業貢獻的認可，也反映了本集團在環保領域的深遠影響，並激勵着我們繼續在技術創新和服務提升上不懈努力。



Human Resources

人力資源

PROFILE OF HUMAN RESOURCES

As of 30 June 2024, the Group had 1,615 employees in total (As of 30 June 2023: 1,460 employees), 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 30 June 2024 categorised by their functions:

人力資源情況

於2024年6月30日，我們共聘用1,615名僱員（於2023年6月30日：1,460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2024年6月30日按職能劃分的員工人數：

Function	職能	Number of employees 僱員人數	Percentage of the total 人數百分比
Concession operation management personnel	特許經營管理人員	96	5.94%
Engineering and technical personnel	工程技術人員	168	10.40%
Sales personnel	銷售人員	36	2.23%
Research and development personnel	研發人員	74	4.58%
Administrative and management personnel	行政管理人員	20	1.24%
Manufacture personnel	生產人員	1,221	75.61%
Total	總計	1,615	100.00%

EMPLOYEE INCENTIVE

Guided by the business strategies and annual business targets, the Company adheres to the concept of “service builds trust, and professionalism creates value”, so as to strengthen the awareness on timeliness, pivotal procedure and budgeting. Through the management policy of “emphasizing on authorization from management, strict assessment and incentive schemes”, we can stimulate the vitality of the team and improve corporate’s operation efficiency.

During the Reporting Period, the Group implemented a responsibility system on operation and management targets, pursuant to which the performance indicators of the Group are linked to the performance of the management team, budget management is strengthened and each project team is encouraged to reduce costs and increase efficiency. The performance of managers and employees at all levels will be used as the basis for assessment, with objectiveness, fairness, openness and standardization as the core assessment concepts, so as to establish and improve the assessment system and incentive mechanism with performance-based results as the guideline. The Group encourages the marketing team to explore new business areas, promote the realization of long-term sales targets and drive development in both existing and new business, in order to continuously improve the Company’s competitiveness. We will further improve the career promotion system, optimize the talent cultivation mechanism, accelerate the cultivation of high-caliber management talents and professional technicians, improve the establishment of talent reserve and personnel echelon for the group headquarters and various projects, and arrange various club activities for employees to inspire their enthusiasm and motivation.

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，強化時效意識、節點意識和預算意識，通過「高授權、嚴考核、重激勵」的管理方針，激發團隊活力，提升企業經營效率。

於報告期內，實行經營管理目標責任制，本集團指標與管理團隊績效聯動，強化預算管理，激勵各項目團隊降本增效；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，以績效結果為導向，建立完善考核體系與激勵機制；鼓勵市場團隊開拓業務新領域，促進長期銷售目標的實現，推進現有業務與新業務並舉，不斷提升本公司競爭力；進一步健全職業晉升體系，完善人才培育機制，加快推進高素質管理人才及專業技能人才隊伍建設，完善集團總部及各項目人才儲備及梯隊人員建設；組織各類職工俱樂部活動，激發員工參與的熱情和積極性。

Human Resources (Continued)

人力資源(續)

THE EMPLOYEES REMUNERATION POLICY

The remuneration package of our employees includes salaries, bonuses and allowances. Our employees are also entitled to various benefits such as supplementary medical provision, transportation allowances, meal allowances, communication subsidies, birthday and festival benefits and annual physical examination. During the Reporting Period, we carried out performance appraisals for all employees, and implemented a performance-based salary system in the positions of management, project managers, sales directors, authorized legal representatives of chartered companies and vice president of finance. We determined performance-based salaries and annual performance bonus of employees based on the appraisal results, as well as established, improved and implemented various reward systems, so as to promote the efforts in the innovation work on research and development and the formulation of corresponding incentive policies. We also promote the realization of business objectives through the evaluation, reward and punishment mechanism and the staged performance review mechanism that combine responsibilities and rights.

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.

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、生日及節日福利、年度體檢等多項福利。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、特許公司法代及財務副總崗位執行績效工資制，根據考核結果核定員工績效工資及年度績效獎金；建立完善並實施各類獎勵制度，推動研發創新工作及相應激勵政策落地，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，促進各項經營目標實現。

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。

TRAINING FOR EMPLOYEES

The Group actively carried out various special trainings in the first half of 2024. In response to the needs of different positions, we organized a number of professional skill training sessions. The trainings included procurement negotiation skills to safe production management training, efficient cross-department communication management training, qualification practical management training and new employee orientation, which were all instructed by experienced practical instructors. Through the combination of theory and practice, business capabilities of employees have been significantly improved. In the second half of 2024, the Group will continue to optimize the content and format of trainings to provide employees with more high-quality training opportunities. At the meantime, we will also strengthen cooperation and exchanges with external institutions and introduce more advanced training concepts and methods, in order to inject more vitality and sagacity into the development of the Company.

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 aspects, 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.

員工培訓

本集團2024年上半年積極開展各類專項培訓，針對不同崗位的需求，我們組織了多場專業技能培訓。從採購談判技巧、到安全生產管理培訓、高效的跨部門溝通管理培訓、資質實操管理培訓及新員工培訓等各個方面，都有經驗豐富的實戰導師進行授課。通過理論與實踐相結合的方式，員工的業務能力得到了顯著提升。2024年下半年，本集團將繼續不斷優化培訓內容和形式，為員工提供更多高質量的培訓機會。同時，我們也將加強與外部機構的合作與交流，引入更多先進的培訓理念和方法，為本公司的發展注入更多的活力和智慧。

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。

Other Information

其他資料

DIRECTOR'S INFORMATION

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 the Company's 2023 Annual Report and the date of the Company's 2024 Interim Report is set out below:

Mr. Lu Zhifang resigned as an independent non-executive Director and Mr. Li Tao has been appointed as an independent non-executive Director with effect from 12 July 2024. At the same date, following Mr. Lu's resignation as an independent non-executive Director and appointment of Mr. Li as an independent non-executive Director, Mr. Lu ceased to be the chairman of the remuneration committee of the Company and a member of the nomination committee of the Company, and Mr. Li has been appointed as the chairman of the remuneration committee of the Company and a member of the nomination committee of the Company.

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

DIRECTORS' AND CHIEF EXECUTIVES' INTERESTS AND SHORT POSITIONS IN SHARES, UNDERLYING SHARES AND DEBENTURE

As of 30 June 2024, the interests and short positions of the Directors or the chief executives 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 SFO) 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 or short positions which were taken or deemed to have under such provisions of the SFO), or which were required, pursuant to section 352 of the SFO, to be entered into the register referred to therein, or which were required to be notified to the Company and the Stock Exchange pursuant to the Model Code were as follows:

董事資料

根據上市規則第13.51B(1)條，於本公司2023年年報日期至本公司2024年中期報告日期期間，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：

自2024年7月12日起，陸志芳先生辭任獨立非執行董事，及李濤先生獲委任為獨立非執行董事。於同日，自陸先生辭任獨立非執行董事及李先生獲委任為獨立非執行董事後，陸先生不再擔任本公司薪酬委員會主席及本公司提名委員會成員，及李先生已獲委任為本公司薪酬委員會主席及本公司提名委員會成員。

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

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2024年6月30日，本公司董事或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、相關股份及債券中擁有任何根據證券及期貨條例第XV部第7和第8分部須知會本公司及聯交所的權益或淡倉（包括根據證券及期貨條例的該等條文被當作或視為擁有的權益或淡倉），或根據證券及期貨條例第352條須登記於該條所指登記冊的權益或淡倉，或根據標準守則須知會本公司及聯交所的權益或淡倉如下：

Other Information (Continued)

其他資料 (續)

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)	278,636,331 (Long Position) (好倉)	27.71%
Ms. Qian Xiaoning 錢曉寧女士	Beneficial owner (Note 2) 實益擁有人 (附註2)	4,846,000 (Long Position) (好倉)	0.48%
Mr. Cheng Liquan Richard 程里全先生	Interest of a controlled corporation (Note 3); and beneficial owner (Note 4) 受控法團權益 (附註3); 及實益擁有人 (附註4)	168,534,580 (Long Position) (好倉)	16.76%
Mr. Zhu Weihang 朱偉航先生	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%

* The percentage has been calculated based on 1,005,720,799 shares in issue as at 30 June 2024.

* 該百分比乃根據於2024年6月30日已發行1,005,720,799股股份計算。

Notes:

附註：

(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.

(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。