

Hong Kong Exchanges and Clearing Limited and The Stock Exchange of Hong Kong Limited take no responsibility for the contents of this announcement, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this announcement.



中国铝业股份有限公司
ALUMINUM CORPORATION OF CHINA LIMITED*

(A joint stock limited company incorporated in the People's Republic of China with limited liability)

(Stock Code: 2600)

2022 ANNUAL RESULTS ANNOUNCEMENT

The board of directors of Aluminum Corporation of China Limited* (the “**Company**”) is pleased to announce the audited results of the Company and its subsidiaries (the “**Group**”) for the year ended 31 December 2022. This announcement, containing the main text of the 2022 annual report of the Company, complies with the relevant requirements of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited in relation to information accompanied to preliminary announcements of annual results. The 2022 annual report of the Company and its printed version will be delivered to the H shareholders of the Company and available for view on the websites of the Hong Kong Stock Exchange at <http://www.hkex.com.hk> and of the Company at <http://www.chalco.com.cn> on or before 30 April 2023.



Contents

2	Corporate Profile
6	Financial Summary
12	Directors, Supervisors, Senior Management and Employees
33	Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders
43	Chairman's Statement
57	Management's Discussion and Analysis of Financial Position and Results of Operations
65	Report of the Board
103	Report of the Supervisory Committee
110	Report on Corporate Governance and Internal Control
140	Significant Events
156	Connected Transactions
190	Independent Auditors' Report
197	Consolidated Statement of Financial Position
200	Consolidated Statement of Profit or Loss and Other Comprehensive Income
202	Consolidated Statement of Changes in Equity
204	Consolidated Statement of Cash Flows
206	Notes to Financial Statements
394	Corporate Information

Corporate Profile

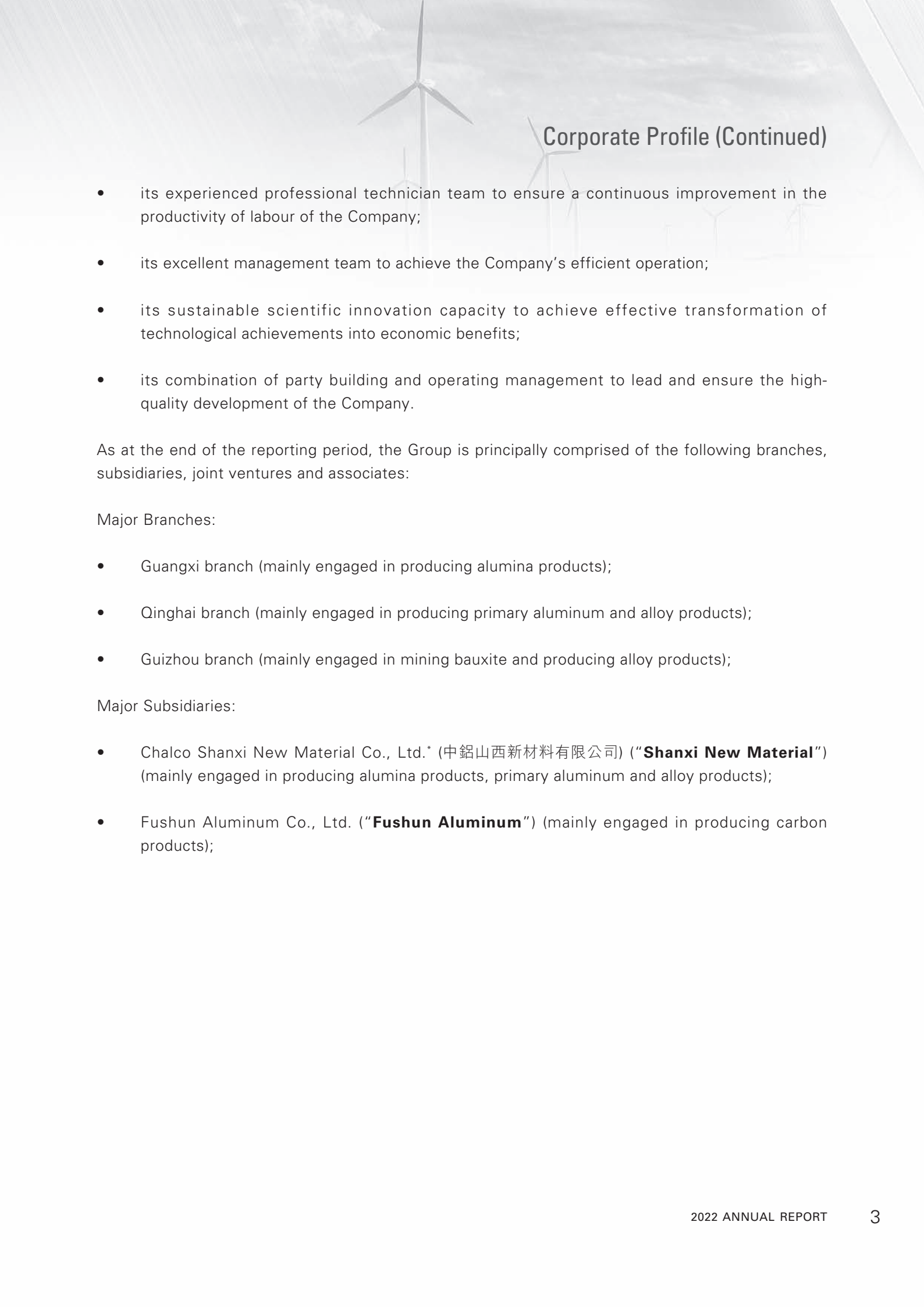


Aluminum Corporation of China Limited (“**Chalco**” or the “**Company**”) is a joint stock limited company established in the People’s Republic of China (the “**PRC**”); its shares are listed on The Stock Exchange of Hong Kong Limited (the “**Hong Kong Stock Exchange**”) and the Shanghai Stock Exchange (“**SSE**”), respectively.

The Company and its subsidiaries (collectively referred to as the “**Group**”) is a leading enterprise in aluminum industry in China, ranking among the top in the global aluminum industry in terms of overall strengths, and is a large aluminum manufacturer and operator with integration of exploration and mining of bauxite, coal and other resources; production, sales and technology research of alumina, primary aluminum, aluminum alloy and carbon; international trade; logistics business; thermal and new energy power generation.

The core competitiveness of the Group is mainly reflected in:

- its clear and pragmatic development strategy to build itself into a top-notch aluminum company with global competitiveness in the world;
- its ownership of stable and reliable supply of bauxite resources to ensure sustainable development;
- its complete industrial chain and distinct comprehensive competitive edge;
- its advanced management concepts to promote the realization of the operation objectives of the Company;



Corporate Profile (Continued)

- its experienced professional technician team to ensure a continuous improvement in the productivity of labour of the Company;
- its excellent management team to achieve the Company's efficient operation;
- its sustainable scientific innovation capacity to achieve effective transformation of technological achievements into economic benefits;
- its combination of party building and operating management to lead and ensure the high-quality development of the Company.

As at the end of the reporting period, the Group is principally comprised of the following branches, subsidiaries, joint ventures and associates:

Major Branches:

- Guangxi branch (mainly engaged in producing alumina products);
- Qinghai branch (mainly engaged in producing primary aluminum and alloy products);
- Guizhou branch (mainly engaged in mining bauxite and producing alloy products);

Major Subsidiaries:

- Chalco Shanxi New Material Co., Ltd.* (中鋁山西新材料有限公司) ("**Shanxi New Material**") (mainly engaged in producing alumina products, primary aluminum and alloy products);
- Fushun Aluminum Co., Ltd. ("**Fushun Aluminum**") (mainly engaged in producing carbon products);

Corporate Profile (Continued)

- Zunyi Aluminum Co., Ltd. ("**Zunyi Aluminum**") (mainly engaged in producing alumina and primary aluminum products);
- Baotou Aluminum Co., Ltd. ("**Baotou Aluminum**") (mainly engaged in producing primary aluminum and alloy products);
- Chalco Mining Co., Ltd. ("**Chalco Mining**") (mainly engaged in mining bauxite and producing alumina products);
- China Aluminum International Trading Co., Ltd. ("**Chalco Trading**") (mainly engaged in the trading of non-ferrous metal products);
- Chalco Hong Kong Ltd. ("**Chalco Hong Kong**") (mainly engaged in development of overseas programs);
- Chalco Zhengzhou Research Institute of Non-ferrous Metal* (中鋁鄭州有色金屬研究院有限公司) ("**Zhengzhou Institute**") (mainly engaged in research and development services);
- Chalco Energy Co., Ltd. ("**Chalco Energy**") (mainly engaged in energy development);
- Chalco (Shanghai) Carbon Co., Ltd. ("**Chalco (Shanghai) Carbon**") (mainly engaged in producing carbon products);
- Chalco New Materials Company Limited ("**Chalco New Materials**") (mainly engaged in producing fine alumina);
- Chalco Ningxia Energy Group Co., Ltd. ("**Ningxia Energy**") (mainly engaged in power generation and coal resources development);
- Guizhou Huajin Aluminum Co., Ltd. ("**Guizhou Huajin**") (mainly engaged in producing alumina products);
- China Aluminum Logistics Group Corporation Co., Ltd ("**Chalco Logistics**") (mainly engaged in logistics and transportation services);
- Chalco Shanghai Company Limited* (中鋁(上海)有限公司) ("**Chalco Shanghai**") (mainly engaged in trading and engineering project management);
- Guangxi Huasheng New Material Co., Ltd. ("**Guangxi Huasheng**") (mainly engaged in producing alumina products);



Corporate Profile (Continued)

- Chalco Materials Co., Ltd. ("**Chalco Materials**") (mainly engaged in procurement of materials including raw materials and fuels);
- Shanxi Huaxing Alumina Co., Ltd. ("**Shanxi Huaxing**") (mainly engaged in producing alumina products);
- Chalco International Trading Group Co., Ltd. ("**Chalco International Trading Group**") (mainly engaged in trading, importing and exporting of non-ferrous metal products);
- Shanxi Chinalco Resources Co., Ltd. ("**Shanxi Zhongrun**") (mainly engaged in producing primary aluminum products);
- Guizhou Huaren New Material Co., Ltd. ("**Guizhou Huaren**") (mainly engaged in producing primary aluminum products);
- Lanzhou Aluminum Co., Ltd. ("**Lanzhou Aluminum**") (mainly engaged in producing primary aluminum products);
- Chinalco Shanxi Jiaokou Xinghua Technology Co., Ltd.* (中鋁集團山西交口興華科技股份有限公司) ("**Xinghua Technology**") (mainly engaged in producing alumina products);
- Gansu Hualu Aluminum Co., Ltd. ("**Gansu Hualu**") (mainly engaged in producing carbon products);
- Yunnan Aluminum Co., Ltd. ("**Yunnan Aluminum**") (mainly engaged in producing alumina and primary aluminum products);
- Pingguo Aluminum Co., Ltd.* (平果鋁業有限公司) ("**Pingguo Aluminum**") (mainly engaged in land leasing and logistics services);

Major Joint Ventures and Associates:

- Guangxi Huayin Aluminum Company Limited ("**Guangxi Huayin**") (mainly engaged in producing alumina products);
- Guangxi Hualei New Materials Co., Ltd. ("**Guangxi Hualei**") (mainly engaged in producing primary aluminum and aluminum processed products);
- Heqing Yixin Aluminum Industry Co., Ltd. ("**Yixin Aluminum**") (mainly engaged in producing primary aluminum, aluminum alloy and aluminum processed products).

Financial Summary

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS

The revenue of the Group for the year ended 31 December 2022 amounted to RMB290,988 million, representing a decrease of 2.64% as compared with the same period of last year. Profit attributable to the owners of the parent for the year amounted to RMB4,192 million, and profit per share attributable to the owners of the parent for the year amounted to RMB0.239.

The following is the summary of the consolidated statements of profit or loss and other comprehensive income for the year 2022 and year 2018 to year 2021:

	2022 <i>RMB'000</i>	For the year ended 31 December			
		2021 <i>RMB'000</i> (Restated)	2020 <i>RMB'000</i> (Restated)	2019 <i>RMB'000</i> (Restated)	2018 <i>RMB'000</i> (Restated)
Revenue	290,987,942	298,885,350	203,993,079	206,190,673	180,418,198
Cost of sales	-259,704,084	-264,168,773	-188,520,176	-192,518,584	-169,281,105
Gross profit	31,283,858	34,716,577	15,472,903	13,672,089	11,137,093
Selling and distribution expenses	-418,909	-383,233	-372,361	-558,615	-345,712
Administrative expenses	-6,008,207	-6,325,461	-5,061,001	-5,058,013	-4,024,888
Research and development expenses	-4,805,174	-2,417,448	-1,465,313	-951,110	-626,873
Impairment losses on property, plant and equipment	-3,795,420	-4,064,673	-681,257	-564,305	-46,484
Other income	235,785	173,156	304,399	297,836	137,293
Impairment losses on financial assets	-414,139	-1,390,765	-967,942	-163,188	-107,956

Financial Summary (Continued)

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

	2022 RMB'000	For the year ended 31 December			
		2021 <i>RMB'000</i> (Restated)	2020 <i>RMB'000</i> (Restated)	2019 <i>RMB'000</i> (Restated)	2018 <i>RMB'000</i> (Restated)
Impairment losses on investments in associates	-75,997	–	–	–	–
Impairment losses on investments in joint ventures	–	–	–	–	-216,953
Other gains, net	315,359	-1,641,015	373,092	-103,963	931,716
Finance costs, net	-3,417,730	-4,221,563	-4,803,492	-5,522,050	-4,426,948
Share of profits and losses of joint ventures	178,910	164,100	180,502	270,115	-199,452
Share of profits and losses of associates	130,632	-423,247	-93,518	73,725	39,335
Profit before income tax	13,208,968	14,186,428	2,886,012	1,392,521	2,250,171
Income tax expense	-2,365,639	-2,869,551	-641,329	-565,444	-832,411
Net profit for the year	10,843,329	11,316,877	2,244,683	827,077	1,417,760
Net profit/(loss) for the year attributable to					
Owners of the Company	4,191,927	5,759,422	862,055	118,523	676,975
Non-controlling interests	6,651,402	5,557,455	1,382,630	708,554	740,785
Proposed final dividend for the year (RMB, tax inclusive)	0.036^{Note}	0.0318	–	–	–

Note: The Board of Directors of the Company proposed to distribute the final dividend for 2022 at RMB0.036 (tax inclusive) per share to all shareholders. The aforesaid distribution of dividend plan is pending to submit at the general meeting of the Company for approval.

Financial Summary (Continued)

1. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH INTERNATIONAL FINANCIAL REPORTING STANDARDS (CONTINUED)

The following is the summary of the consolidated total assets and total liabilities of the Group:

	2022 <i>RMB'000</i>	For the year ended 31 December			
		2021 <i>RMB'000</i> (Restated)	2020 <i>RMB'000</i> (Restated)	2019 <i>RMB'000</i> (Restated)	2018 <i>RMB'000</i> (Restated)
Total assets	212,348,031	224,862,823	232,234,838	239,858,123	201,284,892
Total liabilities	124,592,064	135,165,255	150,244,146	158,913,440	132,779,450
Net assets	87,755,967	89,697,568	81,990,692	80,944,683	68,505,442

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES

Item	For the year ended 31 December 2022 <i>RMB'000</i>
Operating profit	13,682,467
Profit for the year	10,843,329
Profit attributable to owners of the parent	4,191,927
Profit attributable to owners of the parent after excluding gains or losses from non-recurring items	3,130,552
Net cash flows generated from the operating activities	27,806,188

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES (CONTINUED)

	For the year ended 31 December 2022 RMB'000
Gains or losses from non-recurring items	
Gains on disposal of non-current assets	323,808
Government subsidies included in the gains or losses for the reporting period (other than government subsidies which are closely related to the ordinary business of the Company and enjoyed on an ongoing basis under the state's policies according to certain standard amount or quantity)	242,049
Gain or loss on debt restructuring	5,725
Corporate restructuring fees such as staff resettlement expenses, consolidation charges, etc.	-135,378
Profit or loss of subsidiaries from the beginning of the year to the consolidation date arising from business combination under common control	4,296,525
Profit or loss from fair value changes of financial assets held for trading, derivative financial assets, financial liabilities held for trading or derivative financial liabilities, and investment income arising from disposal of financial assets held for trading, derivative financial assets, financial liabilities held for trading or derivative financial liabilities and other debt investments, excluding those from the effective hedging activities in relation to ordinary business of the Company	295,882
Reversal of the allowance for impairment of receivables that is individually tested for impairment	105,023
Gain or loss from external entrusted loans	–
Investment income from disposal of subsidiaries	86,343
Other non-operating income and expenses, net (other than above items)	-434,631
Non-controlling interests effect	-3,616,723
Income tax effect	-107,248
Total	1,061,375

Financial Summary (Continued)

2. FINANCIAL SUMMARY PREPARED IN ACCORDANCE WITH THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES (CONTINUED)

Principal accounting information and financial indicators for 2022 and 2021 of the Group:

	2022 RMB'000	2021 <i>RMB'000</i> (Restated)	Increase/ (decrease) for the year 2022 over 2021 (%)
Revenue	290,987,942	298,885,350	-2.64
Profit before income tax	13,208,968	14,186,428	-6.89
Profit attributable to owners of the parent	4,191,927	5,759,422	-27.22
Profit attributable to owners of the parent after excluding gains from non-recurring items	3,130,552	7,028,314	-55.46
Basic earnings per share (<i>RMB</i>)	0.239	0.326	-26.69
Diluted earnings per share (<i>RMB</i>)	0.239	0.326	-26.69
Basic earnings per share after excluding gains from non-recurring items (<i>RMB</i>)	0.177	0.402	-55.97
Weighted average rate of return on net assets (%)	6.90	9.86	Decrease by 2.96 percentage points
Weighted average rate of return on net assets after excluding gains from non- recurring items (%)	5.40	12.24	Decrease by 6.84 percentage points
Net cash flows generated from operating activities	27,806,188	35,232,217	-21.08
Net cash flows generated from operating activities per share (<i>RMB</i>)	1.62	2.07	-21.72
Total assets	212,348,031	224,862,823	-5.57
Equity attributable to owners of the parent	54,403,012	60,483,623	-10.05
Equity attributable to owners of the parent per share (<i>RMB</i>)	3.17	3.55	-10.78

3. COMPARISON BETWEEN THE FINANCIAL INFORMATION PREPARED IN ACCORDANCE WITH THE INTERNATIONAL FINANCIAL REPORTING STANDARDS AND THE PRC ACCOUNTING STANDARDS FOR BUSINESS ENTERPRISES

	Profit attributable to owners of the parent for the year ended 31 December		Equity attributable to owners of the parent as of 31 December	
	2022 <i>RMB'000</i>	2021 <i>RMB'000</i> (Restated)	2022 <i>RMB'000</i>	2021 <i>RMB'000</i> (Restated)
Prepared in accordance with the PRC Accounting Standards for Business Enterprises	4,191,927	5,759,422	54,403,012	60,483,623
Prepared in accordance with the International Financial Reporting Standards	4,191,927	5,759,422	54,403,012	60,483,623

Directors, Supervisors, Senior Management and Employees

1. PROFILES OF DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT DURING THE REPORTING PERIOD

Name	Position	Gender	Age	Start date of his/her tenure	End date of his/her tenure	Total remuneration before tax received from the Company during the reporting period (RMB'0000)	Whether receiving emolument from related parties of the Company
Liu Jianping	Chairman and Executive Director	M	55	2022.06.21	2025.06.30	0	Yes
Zhu Runzhou	Executive Director	M	58	2022.06.21	2025.06.30	126.15	No
	President			2020.10.21			
Ou Xiaowu	Executive Director	M	58	2022.06.21	2025.06.30	103.39	No
	Secretary of the Discipline Inspection Committee			2020.10.22			
Jiang Tao	Executive Director	M	48	2022.06.21	2025.06.30	94.50	No
	Vice President			2021.08.24			
Zhang Jilong	Non-executive Director	M	59	2022.06.21	2025.06.30	0	Yes
Wang Jun (resigned)	Non-executive Director	M	57	2019.06.25	2022.06.21	0	No
Chen Pengjun	Non-executive Director	M	52	2022.06.21	2025.06.30	0	No
Qiu Guanzhou	Independent Non-executive Director	M	74	2022.06.21	2025.06.30	20.58	No
Yu Jinsong	Independent Non-executive Director	M	69	2022.06.21	2025.06.30	20.58	No
Chan Yuen Sau Kelly	Independent Non-executive Director	F	52	2022.06.21	2025.06.30	20.58	No

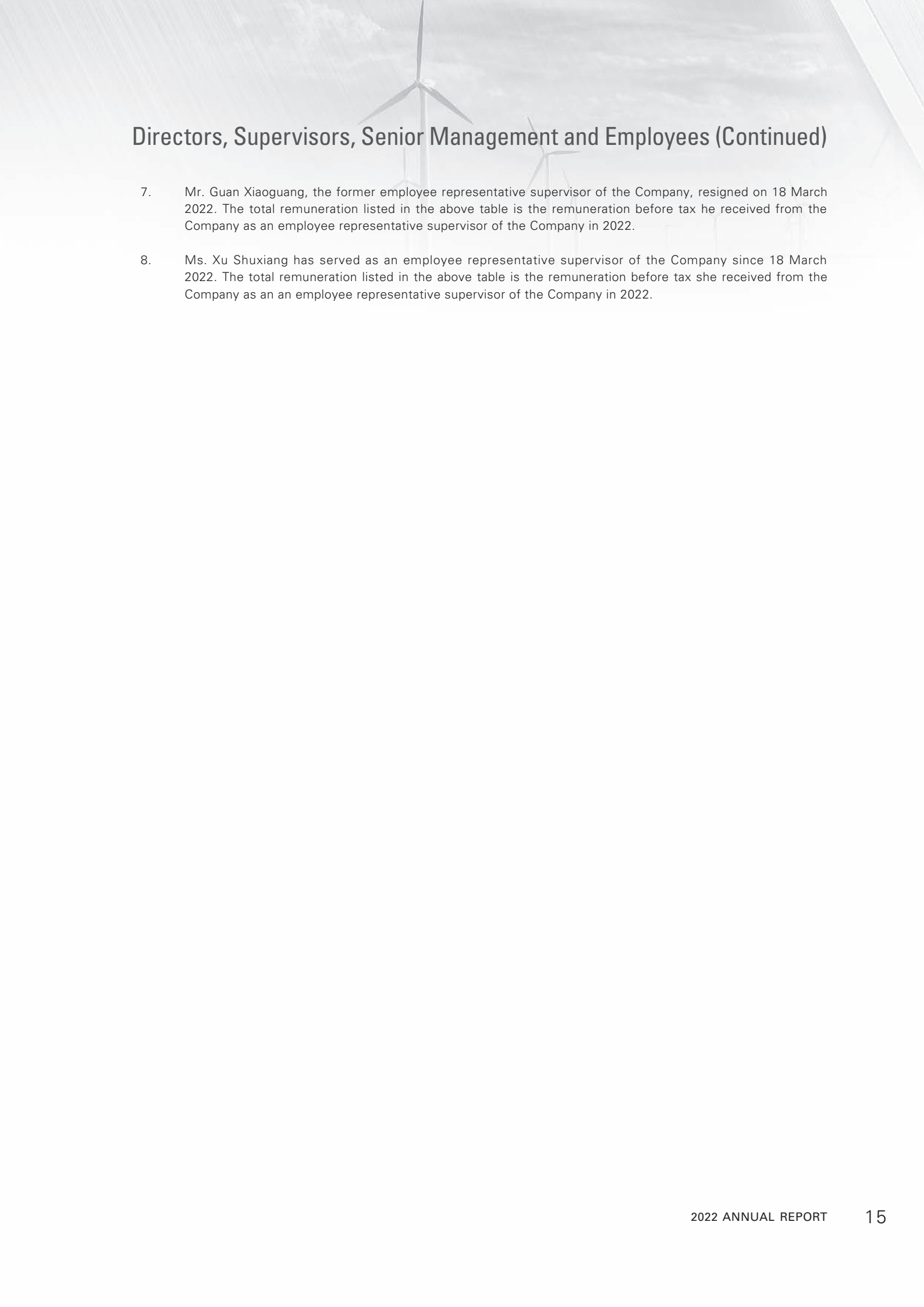
Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position	Gender	Age	Start date of his/her tenure	End date of his/her tenure	Total remuneration before tax received from the Company during the reporting period	Whether receiving emolument from related parties of the Company
						(RMB'0000)	
Ye Guohua	Chairman of the Supervisory Committee	M	54	2022.06.21	2025.06.30	0	Yes
Shan Shulan	Supervisor	F	51	2022.06.21	2025.06.30	0	Yes
Lin Ni	Supervisor	F	49	2022.06.21	2025.06.30	0	Yes
Guan Xiaoguang (resigned)	Supervisor	M	52	2019.06.25	2022.03.18	22.12	No
Yue Xuguang	Supervisor	M	59	2022.06.21	2025.06.30	89.10	No
Xu Shuxiang	Supervisor	F	45	2022.06.21	2025.06.30	39.61	No
Wu Maosen	Vice President	M	59	2019.03.21		92.31	No
Wang Jun (resigned)	Chief Financial Officer and Secretary to the Board	M	52	2019.02.20	2022.03.22	11.18	No
	Company Secretary			2019.02.20	2022.07.24		
Ge Xiaolei	Chief Financial Officer and Secretary to the Board	M	57	2022.03.22		82.32	No
	Joint Company Secretary			2022.07.24			
Total	/	/	/	/	/	722.42	/

Directors, Supervisors, Senior Management and Employees (Continued)

Explanation:

1. On 21 June 2022, the Company elected the directors of the eighth session of the Board and shareholder representative supervisors of the eighth session of the Supervisory Committee at the 2021 annual general meeting, and the employee representative supervisors of the eighth session of the Supervisory Committee were elected at the same time at the Company's employees' representatives meeting. Therefore, the start date of the tenure of the current directors of the eighth session of the Board and supervisors of the eighth session of the Supervisory Committee of the Company is 21 June 2022 for a term of three years, and the expected end date of the tenure is 30 June 2025.
2. "Total remuneration before tax received from the Company during the reporting period" in the above table includes total remuneration, endowment insurance and housing provident fund (except for non-executive directors and independent non-executive directors).
3. Due to the statement of voluntary waiver of emolument for director issued from Mr. Wang Jun, a former non-executive director of the Company, since May 2020, Mr. Wang Jun has voluntarily waived his emolument for his position as a director of the Company. Accordingly, Mr. Wang Jun did not receive remuneration from the Company during his tenure as a non-executive director of the Company in 2022.
4. Due to the statement of voluntary waiver of emolument for director issued from Mr. Chen Pengjun, a non-executive director of the Company, since his appointment as a non-executive director of the Company, Mr. Chen Pengjun has voluntarily waived his emolument for his position as a director of the Company. Accordingly, Mr. Chen Pengjun did not receive remuneration from the Company during his tenure as a non-executive director of the Company in 2022.
5. Due to the resignation of Mr. Wang Jun, the former chief financial officer and secretary to the Board (Company Secretary), the total remuneration listed in the above table is the remuneration before tax he received from the Company during his tenure in 2022.
6. Mr. Ge Xiaolei, the chief financial officer and secretary to the Board (Joint Company Secretary), has served the Company since 22 March 2022, and the total remuneration listed in the above table is the remuneration before tax he received from the Company during his tenure in 2022.

The background of the page features a grayscale image of several wind turbines. One turbine is prominently visible in the upper center, with its three blades extending upwards. Other turbines are visible in the distance, creating a sense of depth. The sky is filled with soft, white clouds, and the overall tone is clean and professional.

Directors, Supervisors, Senior Management and Employees (Continued)

7. Mr. Guan Xiaoguang, the former employee representative supervisor of the Company, resigned on 18 March 2022. The total remuneration listed in the above table is the remuneration before tax he received from the Company as an employee representative supervisor of the Company in 2022.
8. Ms. Xu Shuxiang has served as an employee representative supervisor of the Company since 18 March 2022. The total remuneration listed in the above table is the remuneration before tax she received from the Company as an employee representative supervisor of the Company in 2022.

Directors, Supervisors, Senior Management and Employees (Continued)

2. DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AS AT THE DATE OF THIS ANNUAL REPORT

Major Working Experience of Directors (“**Directors**”), Supervisors (“**Supervisors**”) and Senior Management of the Company as at the Date of this Annual Report:

Executive Directors

Mr. Liu Jianping, aged 55, is the chairman and an executive Director of the Company. Mr. Liu also serves as the director and deputy secretary of the Communist Party Committee of Aluminum Corporation of China (中國鋁業集團有限公司) (“**Chinalco**”). Mr. Liu graduated from Renmin University of China (中國人民大學) with a master’s degree in economics majoring in commodity. Mr. Liu has extensive experience in human resource and corporate management, etc. He successively worked in the department of restructuring, laws and regulations of National Food and Strategic Reserve Administration (國家糧食儲備局), the department of personnel of National Food and Strategic Reserve Administration (國家糧食儲備局), the department of personnel, the organization department of the CPC Central Committee and the First Bureau of Management of Enterprise Leaders of the State-owned Assets Supervision and Administration Commission of China Grain Reserve Group Ltd. Company (中國儲備糧管理總公司). He successively served as the deputy head and head of the department of personnel (bureau of retired veteran cadres) of Aluminum Corporation of China (中國鋁業公司), the head of the human resources department (veteran cadre work department) of the Aluminum Corporation of China (中國鋁業公司), the general manager of the human resource department of the Company, the assistant to the general manager of Aluminum Corporation of China (中國鋁業公司), a member of the Communist Party Committee, deputy general manager and general manager of copper business department (銅事業部) of Aluminum Corporation of China (中國鋁業公司), the chairman and president of China Copper Co., Ltd. (中國銅業有限公司), the chairman of Yunnan Copper (Group) Co., Ltd. (雲南銅業(集團)有限公司), and the deputy general manager, a member of the Communist Party Committee and the safety director of Chinalco.

Mr. Zhu Runzhou, aged 58, is an executive Director and president of the Company. Mr. Zhu graduated from Wuhan University, majoring in software engineering, with a doctor’s degree in management. He is a professor-level senior engineer. Mr. Zhu has extensive experience in power generation, electrolytic aluminum, operation and management, and has successively served as the head of the inspection department, the deputy chief engineer and the chairman of the labour union of Gansu Jingyuan Power Plant* (甘肅靖遠發電廠). He has served as the deputy general manager of Jingyuan First Power Co., Ltd.* (靖遠第一發電公司), the chairman of Baiyin Huadian Water Supply Co., Ltd.* (白銀華電供水有限公司), head of Guodian Guizhou Kaili Power Plant* (國電貴州凱里發電廠), director of the preparatory office

Directors, Supervisors, Senior Management and Employees (Continued)

of the technical transformation program of Guodian in Duyun City, deputy general manager of Guodian Guizhou Branch, deputy general manager of Guodian Yunnan Branch and general manager of Guodian Power Xuanwei Power Generation Co., Ltd.* (國電電力宣威發電有限責任公司), general manager of Guodian Guangxi Branch, deputy general manager of the energy management department of the Company and deputy general manager (department manager level) of Chalco Energy, a director, general manager and chairman of Ningxia Energy, the general manager of Chalco Xinjiang Aluminum Power Co., Ltd.* (中鋁新疆鋁電有限公司), an executive Director, vice president and safety director of the Company, and a director and vice president of Chinalco High-end Manufacturing Co., Ltd.* (中國鋁業集團高端製造股份有限公司) (**"Chinalco High-end Manufacturing"**).

Mr. Ou Xiaowu, aged 58, serves as executive Director and secretary of the Discipline Inspection Committee of the Company. Mr. Ou graduated from Xiamen University (廈門大學) with a bachelor's degree in economics majoring in planning and statistics and is a senior auditor. Mr. Ou has extensive experience in auditing and financial management. He successively served as the deputy head and head of 2nd division and head of 1st division of the audit department in China Nonferrous Metals Industry Corporation (中國有色金屬工業總公司), the deputy head of the finance department and audit department of China Copper Lead Zinc Group Corporation (中國銅鉛鋅集團公司), the deputy general manager of Guizhou Branch of Aluminum Corporation of China Limited (中國鋁業股份有限公司貴州分公司), the deputy head and head of the finance department (audit department) and chief financial officer of copper business department (銅事業部) of Aluminum Corporation of China (中國鋁業公司), a director and chief financial officer of China Copper Co., Ltd. (中國銅業有限公司), the general manager of the finance department and audit department of the Company, and a deputy chief auditor and general manager of the audit department of Chinalco. Mr. Ou also served as a supervisor of China Copper Co., Ltd. (中國銅業有限公司), Chinalco High-end Manufacturing, Chalco Energy, China Aluminum International Engineering Corporation Limited (中鋁國際工程股份有限公司) and the Company. Currently, Mr. Ou serves as the chairman of the supervisory committee of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd. (青海黃河水電再生鋁有限公司).

Mr. Jiang Tao, aged 48, is the executive director and the vice president of the Company. Mr. Jiang graduated from Northeastern University (東北大學) with a doctor's degree in engineering majoring in nonferrous metals metallurgy, and is an excellent senior engineer. Mr. Jiang has extensive experience in corporate management and production skills. He successively served as the deputy manager of the department of production and operation, deputy head of Second Alumina Plant (第二氧化鋁廠), deputy head and head of Alumina Plant (氧化鋁廠), assistant to the general manager and head of Second Alumina Plant (第二氧化鋁廠) of Chalco Shandong Co., Ltd. (**"Chalco Shandong"**), the standing member of the Party Committee of Shandong Aluminum Co., Ltd.* (山東鋁業有限公司) and deputy general manager of Chalco Shandong, the deputy secretary of the Party Committee of Shandong Aluminum Co., Ltd.* (山東鋁業有

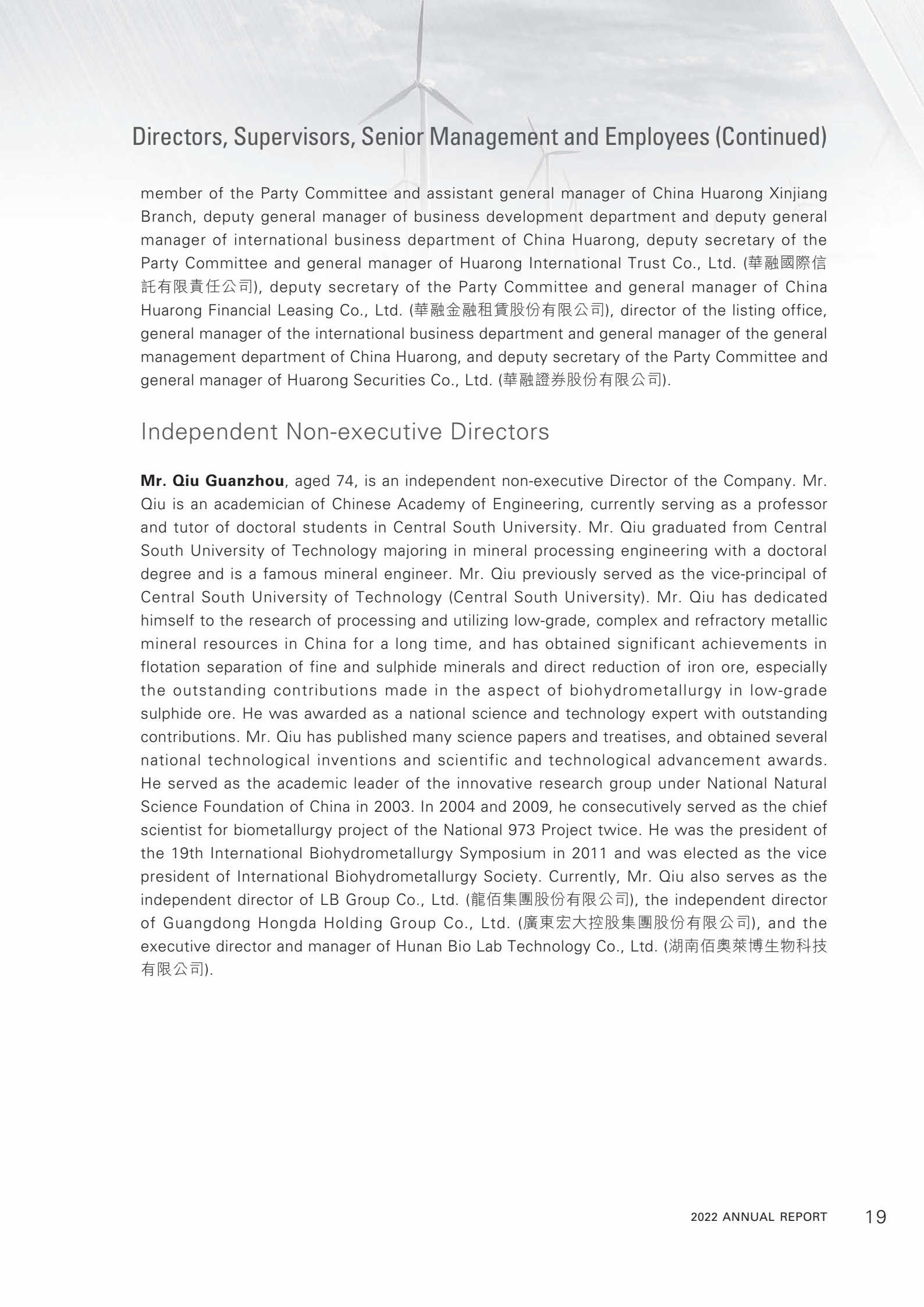
Directors, Supervisors, Senior Management and Employees (Continued)

限公司) and director and the general manager of Chalco Shandong, the secretary of the Party Committee and executive director of Chalco Zhongzhou Aluminum Co., Ltd. ("**Zhongzhou Aluminum**"), and the executive director of Henan Zhongzhou Aluminum Plant Co., Ltd.* (河南中州鋁廠有限公司).

Non-executive Directors

Mr. Zhang Jilong, aged 59, is a non-executive Director of the Company. Mr. Zhang graduated from Central South University (中南大學) with a doctor's degree in engineering majoring in mining engineering, and is an excellent senior engineer. Mr. Zhang has extensive experience in scientific and technological research and development, and corporate management, etc. He successively served as the deputy head of breakthrough and development division of the science and technology development of China Nonferrous Metals Industry Corporation (中國有色金屬工業總公司), the deputy head and head of science and technology division of department of planning and development of the State Bureau of Nonferrous Metal Industry (國家有色金屬工業局), the head of science and technology division of the department of production skills of Aluminum Corporation of China (中國鋁業公司), the deputy general manager of science and technology research and product development center and the manager of comprehensive department of the Company, the deputy head and head of science and technology department of Aluminum Corporation of China (中國鋁業公司) and the deputy manager of science and technology research center and product development center of the Company, the head of the department of science and technology management of Aluminum Corporation of China (中國鋁業公司) and the deputy dean of Chinalco Research Institute of Science and Technology (中鋁科學技術研究院), the general manager of science and technology management division of the Company, the general manager, secretary of the Party Committee and chairman of Xinan Aluminum (Group) Co., Ltd. (西南鋁業(集團)有限責任公司), the general manager of aluminum processing department of Aluminum Corporation of China (中國鋁業公司), the director of Chinalco Ruimin Co., Ltd. (中鋁瑞閩股份有限公司) and the general manager of aluminum processing division of Chinalco.

Mr. Chen Pengjun, aged 52, serves as a non-executive Director of the Company. Mr. Chen currently serves as the secretary of the Party Committee and chairman of the board of directors of Huarong Ruitong Equity Investment Management Co., Ltd.* (華融瑞通股權投資管理有限公司) ("**Huarong Ruitong**") and the general manager of the equity business department of China Huarong Asset Management Co., Ltd. (中國華融資產管理股份有限公司) ("**China Huarong**"). Mr. Chen holds a Master of Business Administration (MBA) from Tsinghua University and is a senior economist with extensive experience in equity management and investment financing. Mr. Chen successively served as senior deputy manager of the debt management department and senior deputy manager of the first asset management department of China Huarong, senior manager of the first marketing department of China Huarong Beijing Branch, senior manager of the first restructuring office of China Huarong,



Directors, Supervisors, Senior Management and Employees (Continued)

member of the Party Committee and assistant general manager of China Huarong Xinjiang Branch, deputy general manager of business development department and deputy general manager of international business department of China Huarong, deputy secretary of the Party Committee and general manager of Huarong International Trust Co., Ltd. (華融國際信託有限責任公司), deputy secretary of the Party Committee and general manager of China Huarong Financial Leasing Co., Ltd. (華融金融租賃股份有限公司), director of the listing office, general manager of the international business department and general manager of the general management department of China Huarong, and deputy secretary of the Party Committee and general manager of Huarong Securities Co., Ltd. (華融證券股份有限公司).

Independent Non-executive Directors

Mr. Qiu Guanzhou, aged 74, is an independent non-executive Director of the Company. Mr. Qiu is an academican of Chinese Academy of Engineering, currently serving as a professor and tutor of doctoral students in Central South University. Mr. Qiu graduated from Central South University of Technology majoring in mineral processing engineering with a doctoral degree and is a famous mineral engineer. Mr. Qiu previously served as the vice-principal of Central South University of Technology (Central South University). Mr. Qiu has dedicated himself to the research of processing and utilizing low-grade, complex and refractory metallic mineral resources in China for a long time, and has obtained significant achievements in flotation separation of fine and sulphide minerals and direct reduction of iron ore, especially the outstanding contributions made in the aspect of biohydrometallurgy in low-grade sulphide ore. He was awarded as a national science and technology expert with outstanding contributions. Mr. Qiu has published many science papers and treatises, and obtained several national technological inventions and scientific and technological advancement awards. He served as the academic leader of the innovative research group under National Natural Science Foundation of China in 2003. In 2004 and 2009, he consecutively served as the chief scientist for biometallurgy project of the National 973 Project twice. He was the president of the 19th International Biohydrometallurgy Symposium in 2011 and was elected as the vice president of International Biohydrometallurgy Society. Currently, Mr. Qiu also serves as the independent director of LB Group Co., Ltd. (龍佰集團股份有限公司), the independent director of Guangdong Hongda Holding Group Co., Ltd. (廣東宏大控股集團股份有限公司), and the executive director and manager of Hunan Bio Lab Technology Co., Ltd. (湖南佰奧萊博生物科技有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Yu Jinsong, aged 69, is an independent non-executive Director of the Company. Mr. Yu is a doctor of law, a professor and tutor of doctoral students of Renmin University of China, and the head of the Institute of International Law (academic part-time job). Mr. Yu focuses on research in international economic law, particularly international investment law and transnational corporation law. He has published dozens of academic papers in multiple major academic journals and several academic works, and obtained multiple national and provincial awards for achievements in teaching and research. Mr. Yu had successively served as an arbitrator of China International Economic and Trade Arbitration Commission (中國國際經濟貿易仲裁委員會), a mediator and arbitrator (2004-2016) of the International Centre for Settlement of Investment Disputes of the World Bank (世界銀行解決投資爭端國際中心), a vice chairman of the Chinese Society of International Law (中國國際法學會), a counselor of the International Law Advisory Committee of Ministry of Foreign Affairs (外交部國際法諮詢委員會).

Ms. Chan Yuen Sau Kelly, aged 52, is a Justice of the Peace and an independent non-executive Director of the Company. Ms. Chan is a fellow of the Association of Chartered Certified Accountants (ACCA), the Hong Kong Institute of Certified Public Accountants (HKICPA), and the Hong Kong Institute of Directors (HKIoD). She is also a Bachelor of Accounting (Honours) of City University of Hong Kong. Ms. Chan has nearly three decades of working experience in finance and accounting and practical experience in fields such as corporate governance, risk management, business process reorganization, auditing, etc. Ms. Chan has successively served as a manager of auditing and management consultancy of Deloitte & Touche (德勤會計師事務所), the financial and administrative head in Hong Kong and Macau of Heineken (喜力集團), and the chief financial officer of Moët Hennessy Diageo (酩悅軒尼詩帝亞吉歐). Ms. Chan currently serves as the managing director of Peony Consulting Services Company (遠博顧問服務公司), the Program Director of Asia Chief Financial Officer Council (亞洲首席財務官理事會) of The Conference Board, the past president of the Association of Women Accountants (Hong Kong) (香港女會計師協會) and Association of Chartered Certified Accountants (ACCA Hong Kong), the chairperson of TR at CUHK Ltd. (中大轉研有限公司) and Employees' Compensation Insurance Levies Management Board (僱員補償保險徵款管理局), a member of the Air Transport Licensing Authority (空運牌照局), a member of the board of The Chinese University of Hong Kong, a member of the council of Hong Kong Repertory Theatre and the board of Rehabaid Society. Currently, Ms. Chan also serves as an independent non-executive director of Morimatsu International Holdings Company Limited.

Directors, Supervisors, Senior Management and Employees (Continued)

Supervisors

Mr. Ye Guohua, aged 54, is the chairman of the Supervisory Committee of the Company and served as the chief accountant and a member of the Communist Party Committee of Chinalco. Mr. Ye graduated from Shanghai University of Finance and Economics, majoring in accounting, with a bachelor degree in economics and is a senior accountant. Mr. Ye has extensive experience in financial management and accounting. He has successively served as the director of accounting department of the refinery of Shanghai Gaoqiao Petrochemical Company* (上海高橋石油化工公司), the deputy chief accountant and head of accounting department of Sinopec Shanghai Gaoqiao Branch* (中國石化股份公司上海高橋分公司), the chief financial officer, executive director, a member of the Party Committee, deputy general manager of Sinopec Shanghai Petrochemical Company Limited* (上海石油化工股份有限公司), the director of accounting department of China Petroleum & Chemical Group Corporation* (中國石油化工集團公司), the chairman of Century Bright International Investment Company* (盛駿國際投資有限公司), the chairman of Sinopec Insurance Limited* (中石化保險有限公司), the vice chairman of Taiping & Sinopec Financial Leasing Co., Ltd.* (太平石化金融租賃有限責任公司), a director of Sinopec Finance Co., Ltd.* (中石化財務有限責任公司), and a director of Sinopec Oilfield Service Corporation* (中石化石油工程技術服務股份有限公司). Mr. Ye currently is also the chairman of Chinalco Innovative Development Investment Company Limited* (中鋁創新開發投資有限公司).

Ms. Shan Shulan, aged 51, is a Supervisor of the Company and serves as the general manager of the Finance Property Department of Chinalco. Ms. Shan graduated from Beijing Institute of Light Industry* (北京輕工業學院), majoring in industrial corporate management, with a bachelor degree in engineering. She is a certified public accountant and statistician. Ms. Shan has extensive experience in accounting, finance management and other fields. She has successively served as an economic analyst at the economic research office of Beijing Glass Instruments Plant* (北京玻璃儀器廠), the financial manager of Beijing CEMFIL Glass Fiber Co. Ltd.* (北京賽姆菲爾玻璃纖維有限公司) under Saint-Gobain in China, the financial manager for Beijing region of Carrefour (China) Co., Ltd.* (家樂福(中國)有限公司), the financial manager for China region of Baker Hughes Centrilift, the financial manager for China region of Microsoft Research Asia (China)* (微軟(中國)亞洲研究院), the business director and deputy head of budget division and the head of budget assessment division of the finance department of Aluminum Corporation of China* (中國鋁業公司), the deputy general manager of the financial department of Chinalco and the deputy general manager of the Finance Property Department of Chinalco (responsible for daily operation). Ms. Shan also currently serves as the director of Chinalco Capital Holdings Co., Ltd.* (中鋁資本控股有限公司), the director of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and the supervisor of Chinalco Research Institute of Science and Technology Co., Ltd.* (中鋁科學技術研究院有限公司).

Directors, Supervisors, Senior Management and Employees (Continued)

Ms. Lin Ni, aged 49, is a Supervisor of the Company and also serves as the general manager of the audit department of Chinalco. Ms. Lin graduated from Shandong Economics University with a bachelor degree in economics majoring in international accounting. She is a senior auditor. Ms. Lin has extensive experience in the fields of auditing and accounting. She has successively served as the head of the 2nd division and the 1st division of the audit department of Aluminum Corporation of China* (中國鋁業公司), the deputy head of the audit department of Aluminum Corporation of China* (中國鋁業公司), the deputy head of the audit department of Chinalco, and the deputy general manager of the audit department of Chinalco. Ms. Lin currently also serves as the supervisor of China Aluminum International Engineering Corporation Limited, Chinalco Materials Application Research Institute Co., Ltd. and Chinalco Asset Operation and Management Co., Ltd* (中鋁資產經營管理有限公司).

Mr. Yue Xuguang, aged 59, is a Supervisor of the Company. Mr. Yue graduated from Kunming Institute of Technology with a bachelor degree in engineering majoring in mineral census and exploration. He is a senior economist. He has rich experience in human resources management. Mr. Yue has successively served as the deputy head of the coordination division of the labour insurance bureau and the head of the labour management division of the personnel and education department of China Nonferrous Metals Industry Corporation* (中國有色金屬工業總公司), the deputy head of the general division of the personnel office of State Bureau of Nonferrous Metal Industry* (國家有色金屬工業局) (enjoying the head-level treatment), the deputy head of the personnel department of China Aluminum Corporation* (中國鋁業集團公司), the head of the labour division of the personnel department of Aluminum Corporation of China* (中國鋁業公司), the manager of the remuneration management division of the human resources department of the Company, the head of the general division of the general office of Aluminum Corporation of China* (中國鋁業公司), the manager of the general division of the capital operating department of the Company, the deputy general manager and general manager of the human resources department of the Company, the deputy head (departmental head level) of the human resources department (veteran cadre work department) of the Aluminum Corporation of China* (中國鋁業公司), the secretary of the party committee and deputy general manager of Chinalco Asset Operation and Management Co., Ltd* (中鋁資產經營管理有限公司) and the general manager of the human resources department of the Company.

Directors, Supervisors, Senior Management and Employees (Continued)

Ms. Xu Shuxiang, aged 45, is a Supervisor of the Company and a senior business manager of the operation optimization division of the production quality department of the Company. Ms. Xu graduated from Northeastern University with a master's degree in engineering majoring in non-ferrous metallurgy and has extensive experience in metal smelting, energy conservation management, safety and environmental protection management, etc. Ms. Xu has successively served as the business head of the assets operation department of Aluminum Corporation of China* (中國鋁業公司), the business head of the general division of the enterprise management department (safety and environmental protection department) of Aluminum Corporation of China*, the business head of the general division of the safety, environmental protection and health department of Aluminum Corporation of China*, the business manager of the general division of the safety, environmental protection and health department of the Company, the senior business manager of the energy conservation management division of the safety, environmental protection and health department of Aluminum Corporation of China*, the deputy manager of the safety, environmental protection and health division of the enterprise management department of the Company and the senior business manager of the general division of the enterprise management department of the Company.

Other Senior Management

Mr. Wu Maosen, aged 59, is a vice president of the Company. Mr. Wu graduated from Dalian Railway College with a bachelor's degree in engineering, majoring in welding technology and equipment. He is a senior engineer with excellent performance. Mr. Wu has extensive experience in corporate management. He has successively served as the deputy head of the alumina branch, the deputy head of the overhauling branch and the director of the transport department of Shanxi Aluminum Plant, the assistant to the general manager of Shanxi Branch of Aluminum Corporation of China Limited, the deputy commander-in-chief of the engineering and construction command department of Chalco Shanxi, a deputy general manager of Shanxi Huaze Aluminum & Power Co., Ltd* (山西華澤鋁電有限公司), the deputy head and head of Shanxi Aluminum Plant, a director, a general manager and the secretary of the Party committee of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.* (青海黃河水電再生鋁業有限公司), the secretary of the Party committee, an executive director and general manager of Chalco Asset Operation and Management Company* (中鋁資產經營管理公司) and successively served as an executive director of Chalco Shanghai Company Limited* (中鋁上海有限公司), an executive director and the general manager of Chalco Industrial Development Co., Ltd.* (中鋁置業發展有限公司), the chairman of the board of Huaxi Aluminum Company Limited* (華西鋁業有限公司), the chairman of the board and the general manager of Chalco Investment and Development Co., Ltd.* (中鋁投資發展有限公司), the deputy team-leader of the team aiming at making up deficits and shaking off dilemma, transforming and upgrading of Shanxi Branch of Aluminum Corporation of China Limited and Shanxi Aluminum Plant and the chairman and an executive director of the board of Chinalco Research Institute of Science and Technology Co., Ltd.* (中鋁科學技術研究院有限公司). Currently, Mr. Wu also serves as the chairman of Chalco (Shanghai) Carbon.

Directors, Supervisors, Senior Management and Employees (Continued)

Mr. Ge Xiaolei, aged 57, has served as the chief financial officer and secretary to the Board of the Company (Joint Company Secretary). Mr. Ge graduated from Nanjing University majoring in economic management, and subsequently obtained a master's degree in business administration from the University of Texas in the United States. He is a senior economist. Mr. Ge has extensive experience in financial management and corporate management. He has successively served as the deputy head of the planning division and deputy head of the finance division of Zhongzhou Aluminum Plant, the deputy chief accountant and manager of the finance department of the Company's Zhongzhou Branch, the chief financial officer of Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.* (青海黃河水電再生鋁有限公司), the deputy general manager of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and the director and general manager of Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司), the general manager of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司) and a director of Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司), a director of Agricultural Bank Huili Fund Management Co., Ltd.* (農銀匯理基金管理有限公司), the secretary of the party committee and chairman of Chinalco Capital Holdings Co., Ltd.* (中鋁資本控股有限公司), the chairman of the board of directors of Chinalco Finance Co., Ltd.* (中鋁財務有限責任公司), and a director of Agricultural Bank Huili Fund Management Co., Ltd.* (農銀匯理基金管理有限公司).

Mr. Xu Feng, aged 51, is a vice president of the Company since 21 March 2023. Mr. Xu holds a master of engineering degree in project management from Xi'an Jiaotong University and is a senior engineer. Mr. Xu has extensive experience in the aluminum and the energy industries. He has successively served as the director and deputy chief engineer of the engineering and technical department of Maliantai Power Plant of Ningxia Power Group Co., Ltd. (寧夏發電集團有限責任公司馬蓮台電廠), the executive director, general manager and deputy secretary of the party committee of Ningxia Yingyi Power Equipment Inspection and Installation Co., Ltd. (寧夏銀儀電力設備檢修安裝有限公司), the vice general manager of Chinalco Ningxia Energy Group Co., Ltd. (中鋁寧夏能源集團有限公司) and chairman of Ningxia Yinxing Energy Co., Ltd. (寧夏銀星能源股份有限公司), a general manager and deputy secretary of the party committee of Shanxi Chinalco Resources Co., Ltd. (山西中鋁華潤有限公司), the executive director and secretary of the party committee of Chinalco (Yunnan) Huajiang Aluminum Co., Ltd. (中鋁(雲南)華江鋁業有限公司), a vice chairman and deputy secretary of the party committee of Yunnan Aluminum Co., Ltd. (雲南鋁業股份有限公司) and the chairman and secretary of the party committee of Yunnan Wenshan Aluminum Co., Ltd. (雲南文山鋁業有限公司), as well as an assistant to the president of the Company. Mr. Xu also serves as the chairman of Chalco Steering Intelligence Technology Co., Ltd. (中鋁視拓智能科技有限公司) currently.

Directors, Supervisors, Senior Management and Employees (Continued)

3. POSITIONS HELD IN SHAREHOLDER ENTITIES OF THE COMPANY OR OTHER ENTITIES BY DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AT PRESENT AND DURING THE YEAR

Positions in the Shareholder Entities of the Company

Name	Name of shareholder	Position(s) in shareholder entity	Date of appointment	Date of termination
Liu Jianping	Chinalco	Director, Deputy Secretary of the Communist Party Committee	2022.02.22	–
Ye Guohua	Chinalco	Chief Accountant	2018.08.14	–
Chen Pengjun	Huarong Ruitong	Chairman	2019.10.18	–
Shan Shulan	Chinalco	General Manager of the Finance Department	2020.12.30	–
Lin Ni	Chinalco	General Manager of the Audit Department	2022.01.27	–

Notes:

1. Mr. Liu Jianping, Mr. Ye Guohua, Ms. Shan Shulan and Ms. Lin Ni all hold positions in Chinalco, the controlling shareholder of the Company. As of 31 December 2022, Chinalco directly holds 29.43% of the Company's equity interest.
2. Mr. Chen Pengjun holds a position in Huarong Ruitong, a shareholder of the Company. As of 31 December 2022, Huarong Ruitong directly holds 1.94% of the Company's equity interest.

Directors, Supervisors, Senior Management and Employees (Continued)

Positions in Other Entities

Name	Name of other entities	Position(s)	Date of appointment	Whether receiving remuneration or allowance
Ye Guohua	Chinalco High-end Manufacturing ^{Note 1}	Chairman (resigned)	2019.09.20	No
	Chinalco Innovative Development Investment Company Limited*	Chairman	2021.12.13	No
Ou Xiaowu	China Aluminum International Engineering Corporation Limited ^{Note 2}	Supervisor (resigned)	2011.06.30	No
	Qinghai Yellow River Hydropower Renewable Aluminum Co., Ltd.*	Chairman of the Supervisory Committee	2012.10.18	No
Wang Jun (Director) (resigned)	China Nuclear Engineering Corporation Limited	Director	2014.03.12	No
Chen Pengjun	China Huarong	General Manager of the Equity Business Department	2019.10.18	Yes
Qiu Guanzhou	LB Group Co., Ltd.	Independent Director	2020.04.22	Yes
	Guangdong Hongda Blasting Co., Ltd.	Independent Director	2019.12.27	Yes
Yu Jinsong	Hunan Bio Lab Technology Co., Ltd.	Executive Director, Manager	2020.12.08	Yes
	Zhejiang Zhongxin Fluoride Chemicals Co., Ltd. ^{Note 3}	Independent Director (resigned)	2016.08.05	Yes
	Zhongshan Broad-Ocean Motor Co., Ltd. ^{Note 3}	Independent Director (resigned)	2015.08.11	Yes

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Name of other entities	Position(s)	Date of appointment	Whether receiving remuneration or allowance
Chan Yuen Sau Kelly	Morimatsu International Holdings Company Limited	Independent Director	2021.02.10	Yes
Wu Maosen	Chalco (Shanghai) Carbon ^{Note 4}	Chairman	2021.12.13	No
Xu Feng	Chalco Steering Intelligence Technology Co., Ltd.	Chairman	2021.05.21	No
Shan Shulan	Chinalco Capital Holdings Co., Ltd.*	Director	2021.12.13	No
	Chinalco Finance Co., Ltd.*	Director	2021.12.13	No
	Chinalco Research Institute of Science and Technology Co., Ltd.*	Supervisor	2018.11.19	No
Lin Ni	Chinalco Asset Operation and Management Co., Ltd.*	Supervisor	2017.11.03	No
	China Aluminum International Engineering Corporation Limited ^{Note 5}	Supervisor	2022.04.08	No
	Chinalco Materials Application Research Institute Co., Ltd.	Supervisor	2017.01.24	No

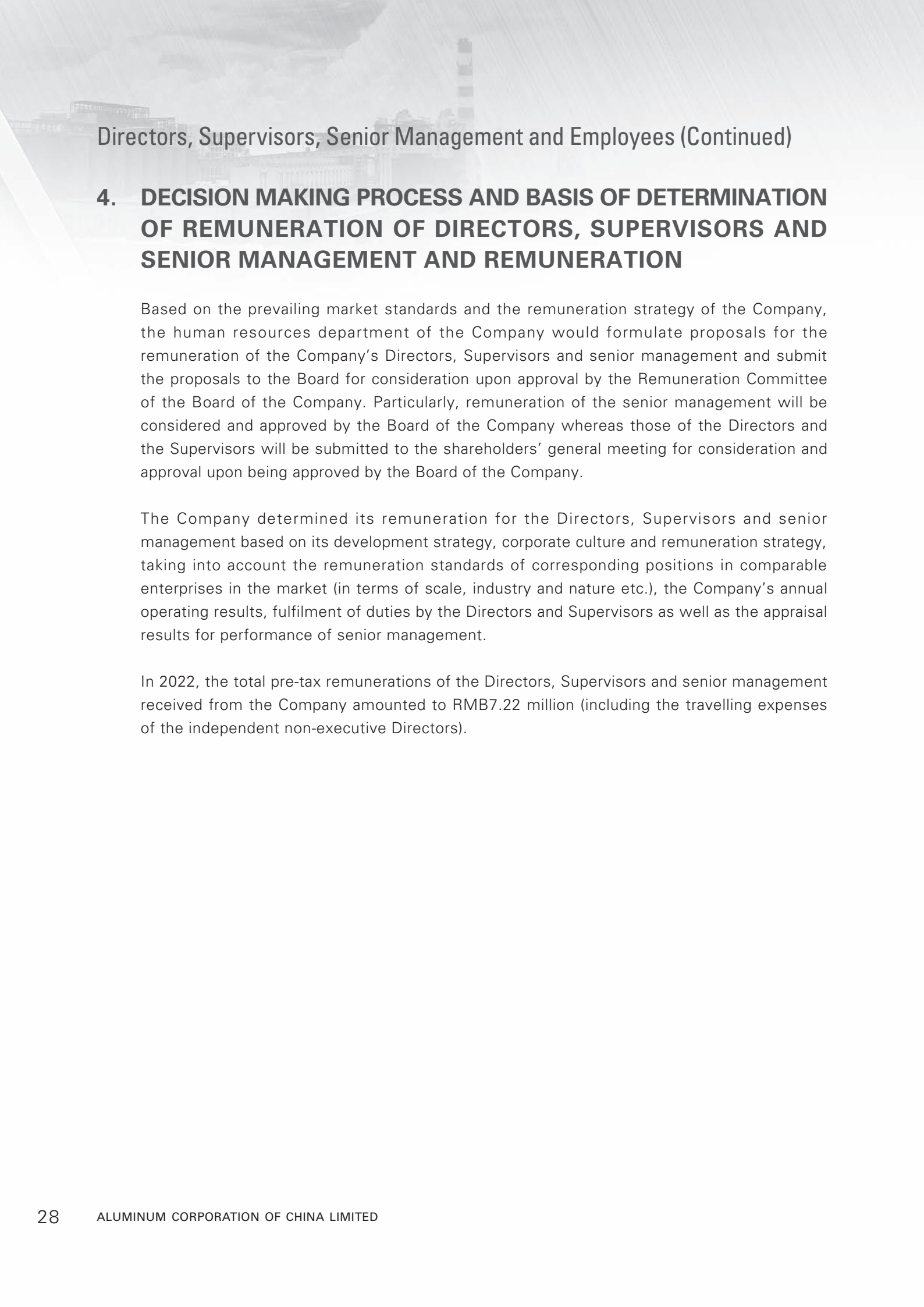
Note 1: Mr. Ye Guohua resigned his position as the chairman of Chinalco High-end Manufacturing on 2 February 2023.

Note 2: Mr. Ou Xiaowu resigned his position as a supervisor of China Aluminum International Engineering Corporation Limited on 8 April 2022.

Note 3: Mr. Yu Jinsong resigned his position as an independent director of Zhongshan Broad-Ocean Motor Co., Ltd. on 28 June 2022 and as an independent director of Zhejiang Zhongxin Fluoride Chemicals Co., Ltd. on 5 August 2022.

Note 4: Mr. Wu Maosen started his position as the chairman of Chalco (Shanghai) Carbon, a wholly-owned subsidiary of the Company on 13 December 2021.

Note 5: Ms. Lin Ni started her position as a supervisor of China Aluminum International Engineering Corporation Limited on 8 April 2022.



Directors, Supervisors, Senior Management and Employees (Continued)

4. DECISION MAKING PROCESS AND BASIS OF DETERMINATION OF REMUNERATION OF DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT AND REMUNERATION

Based on the prevailing market standards and the remuneration strategy of the Company, the human resources department of the Company would formulate proposals for the remuneration of the Company's Directors, Supervisors and senior management and submit the proposals to the Board for consideration upon approval by the Remuneration Committee of the Board of the Company. Particularly, remuneration of the senior management will be considered and approved by the Board of the Company whereas those of the Directors and the Supervisors will be submitted to the shareholders' general meeting for consideration and approval upon being approved by the Board of the Company.

The Company determined its remuneration for the Directors, Supervisors and senior management based on its development strategy, corporate culture and remuneration strategy, taking into account the remuneration standards of corresponding positions in comparable enterprises in the market (in terms of scale, industry and nature etc.), the Company's annual operating results, fulfilment of duties by the Directors and Supervisors as well as the appraisal results for performance of senior management.

In 2022, the total pre-tax remunerations of the Directors, Supervisors and senior management received from the Company amounted to RMB7.22 million (including the travelling expenses of the independent non-executive Directors).

Directors, Supervisors, Senior Management and Employees (Continued)

5. CHANGES IN DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT DURING THE YEAR AND AS OF THE DATE OF THIS ANNUAL REPORT

Name	Position(s)	Status	Reason for the change
Wang Jun	Non-executive Director	Resigned	The Company considered and approved the Resolution in Relation to the Nomination of Directors for the Eighth Session of the Board of the Company in the 28th meeting of the seventh session of the Board convened on 26 April 2022, in which, as the term of office of Mr. Wang Jun, the former non-executive Director of the Company had expired, the Board approved to nominate Mr. Chen Pengjun as a candidate for non-executive Director for the eighth session of the Board of the Company. On 21 June 2022, the Company convened the 2021 annual general meeting and elected Mr. Chen Pengjun as a non-executive Director of the eighth session of the Board of the Company; Mr. Wang Jun resigned on the same day.
Chen Pengjun	Non-executive Director	Elected	
Guan Xiaoguang	Supervisor	Resigned	Mr. Guan Xiaoguang resigned as the employee representative supervisor of the Company due to his work arrangement with effect from 18 March 2022. As elected at the employees' representatives meeting of the Company, Ms. Xu Shuxiang was elected as an employee representative supervisor of the seventh session of the Supervisory Committee of the Company on 18 March 2022.
Xu Shuxiang	Supervisor	Elected	

Directors, Supervisors, Senior Management and Employees (Continued)

Name	Position(s)	Status	Reason for the change
Wang Jun	Chief financial officer and secretary to the Board (Company Secretary)	Dismissed	The Company considered and approved the Resolution in Relation to the Change of the Company's Chief Financial Officer and Secretary to the Board of the Company in the 26th meeting of the seventh session of the Board convened on 22 March 2022. Mr. Wang Jun, the former chief financial officer and secretary to the Board of the Company, proposed to resign for personal reasons. The Board approved to dismiss Mr. Wang Jun as the chief financial officer and the secretary to the Board, and appoint Mr. Ge Xiaolei as the chief financial officer and the secretary to the Board of the Company. The Company considered and approved the Resolution on Appointment of Joint Company Secretary in the second meeting of the eighth session of the Board convened on 24 July 2022. The Board approved to dismiss Mr. Wang Jun as the company secretary, and appoint Mr. Ge Xiaolei and Ms. Ng Ka Man as joint company secretaries of the Company.
Ge Xiaolei	Chief financial officer and secretary to the Board (Joint Company Secretary)	Appointed	
Xu Feng	Vice president	Appointed	Due to work needs, the Company considered and approved the Resolution in Relation to Appointment of Mr. Xu Feng as the Vice President of the Company in the tenth meeting of the eighth session of the Board convened on 21 March 2022, at which the appointment of Mr. Xu Feng as the vice president was approved with immediate effect.

Directors, Supervisors, Senior Management and Employees (Continued)

6. EMPLOYEES OF THE COMPANY

As of 31 December 2022, the Group had 67,383 employees. The structure of employees is as follows:

Composition by Function

Category	Headcounts
Production personnel	55,076
Sales personnel	1,071
Technology personnel	3,893
Finance personnel	681
Administration personnel	6,662
Total	67,383

By Education Background

Category	Headcounts
Post-graduates and above	1,003
Undergraduates	13,569
Technical institute graduates	17,738
Secondary/technical school graduates or below	35,173
Total	67,383

By gender

Category	Headcounts
Male	56,126
Female	11,257
Total	67,383



Directors, Supervisors, Senior Management and Employees (Continued)

The Company has been committed to the principle of employment equality between men and women and prohibited gender-based discrimination. However, as the Company is mainly engaged in non-ferrous metal manufacturing, many production posts in the Company are labor intensive and are not suitable for female employees due to objective factors such as physical fitness and working environment. In order to protect women's employment rights, the Company arranges as many jobs as possible for female employees and ensures that the proportion of female employees is not less than 15%. As of the end of the reporting period, the proportion of female employees in the total staff of the Company was 16.71%.

As of the end of the reporting period, there was one female member of the Board and all of the senior management were male. The Company will adhere to the principle of gender diversity at all employee levels and will appropriately consider increasing the proportion of female members in future elections, hirings and promotions.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders

1. SHARE CAPITAL STRUCTURE

Chinalco is the single largest shareholder of the Company, which directly held 29.43% equity interest of the Company and together with its subsidiaries held an aggregate of 31.90% equity interest of the Company as of 31 December 2022. As of 31 December 2022, Chinalco was the controlling shareholder of the Company.

As of 31 December 2022, the share capital structure of the Company was as follows:

	As of 31 December 2022	
	Number of shares (In million)	Percentage to total issued share capital (%)
Holders of A shares	13,217.63	77.02
Including: Shares subject to trading moratorium	138.92	0.81
Tradable shares not subject to trading moratorium	13,078.71	76.21
Holders of H shares	3,943.97	22.98
Total	17,161.59	100.000

In 2022, the Company completed the grant of 2021 Restricted Shares, including the first grant and the reserved grant, and granted a total of 138,918,600 restricted shares of A shares to the Participants. Upon the completion of the aforesaid grants, the total share capital of the Company changed from 17,022,672,951 shares to 17,161,591,551 shares, of which, the total share capital of A shares changed from 13,078,706,983 shares to 13,217,625,583 shares, and the total share capital of H shares remains unchanged.

According to the publicly available information and to the best knowledge of the Company's Directors, as of the date of this annual report, the share capital structure of the Company can maintain a sufficient public float and is in compliance with the requirement of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "**Hong Kong Listing Rules**").

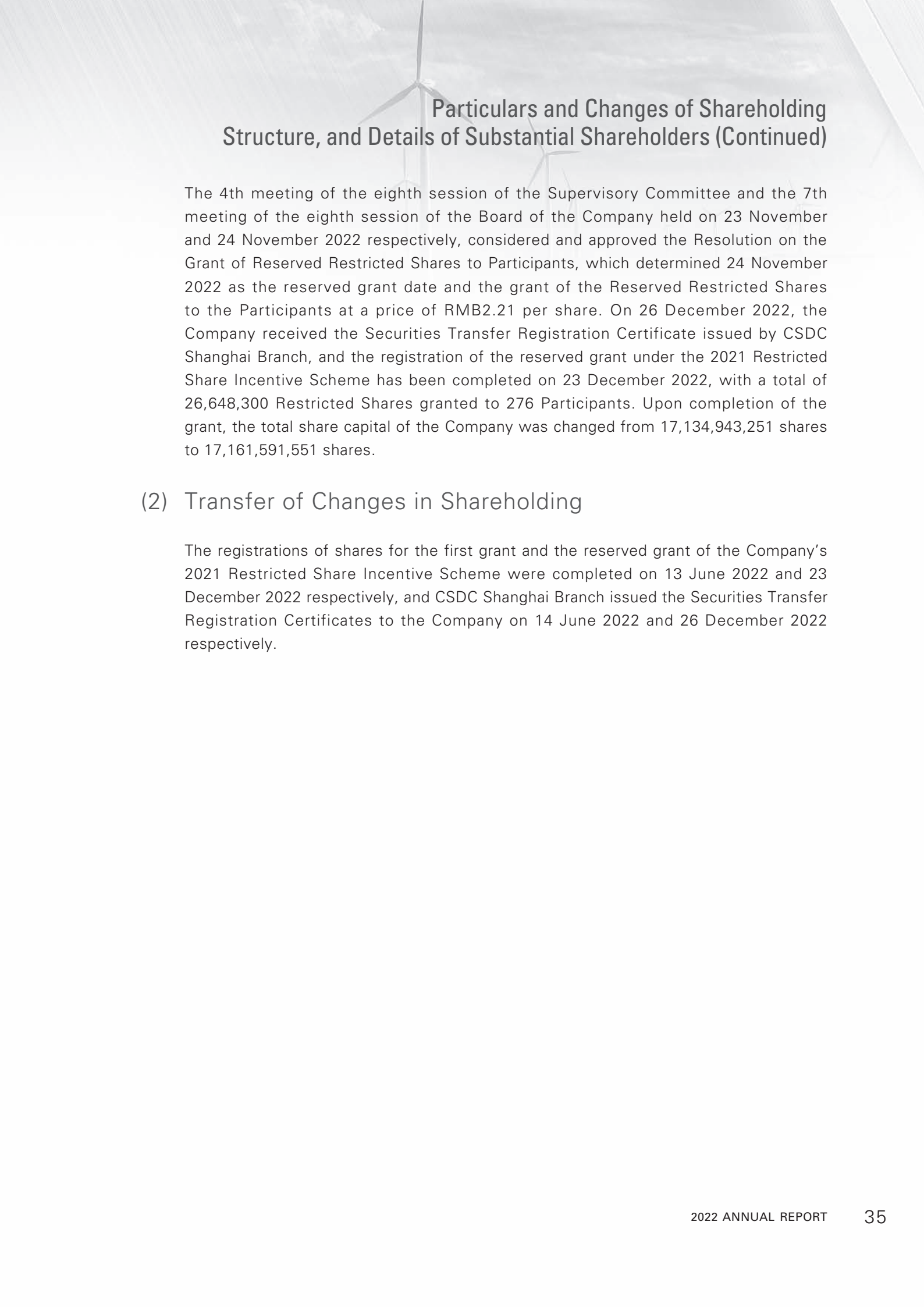
Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

2. CHANGES IN SHAREHOLDING AND SHAREHOLDERS

(1) Approval of Changes in Shares

On 21 December 2021, the 12th meeting of the seventh session of the Supervisory Committee and the 24th meeting of the seventh session of the Board of the Company were held, at which the relevant resolutions relating to the Company's 2021 Restricted Share Incentive Scheme were considered and approved. On 20 April 2022, the Company received the "Approval on the Implementation of the Restricted Share Incentive Scheme by Aluminum Corporation of China Limited*" (Guo Zi Kao Fen [2022] No. 157) from the State-owned Assets Supervision and Administration Commission of the State Council (the "**SASAC**"), which was forwarded by Aluminum Corporation of China, the controlling shareholder of the Company, approving the implementation of the Restricted Share Incentive Scheme by the Company in principle. On 26 April 2022, the 2022 first extraordinary general meeting, the 2022 first class meeting for A shareholders and the 2022 first class meeting for H shareholders of the Company were held, at which the relevant resolutions relating to the Restricted Share Incentive Scheme were considered and approved.

Pursuant to the authorization of the general meeting of shareholders, the 16th meeting of the seventh session of the Supervisory Committee and the 29th meeting of the seventh session of the Board of the Company held on 24 May and 25 May 2022 respectively, considered and approved the resolution on the first grant of Restricted Shares to the Participants, which determined 25 May 2022 as the first grant date and the grant of Restricted Shares to the Participants at a price of RMB3.08 per share. On 14 June 2022, the Company received the Securities Transfer Registration Certificate issued by Shanghai Branch of China Securities Depository and Clearing Corporation Limited ("**CSDC Shanghai Branch**"), and the registration of the first grant of 2021 Restricted Share Incentive Scheme has been completed on 13 June 2022, with a total of 112,270,300 Restricted Shares granted to 930 Participants. Upon completion of the grant, the total share capital of the Company was changed from 17,022,672,951 shares to 17,134,943,251 shares.

The background of the page features a large, faint image of a wind turbine. The turbine is positioned in the upper left quadrant, with its blades extending towards the top right. The overall image is in a light, desaturated tone, serving as a subtle backdrop for the text.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

The 4th meeting of the eighth session of the Supervisory Committee and the 7th meeting of the eighth session of the Board of the Company held on 23 November and 24 November 2022 respectively, considered and approved the Resolution on the Grant of Reserved Restricted Shares to Participants, which determined 24 November 2022 as the reserved grant date and the grant of the Reserved Restricted Shares to the Participants at a price of RMB2.21 per share. On 26 December 2022, the Company received the Securities Transfer Registration Certificate issued by CSDC Shanghai Branch, and the registration of the reserved grant under the 2021 Restricted Share Incentive Scheme has been completed on 23 December 2022, with a total of 26,648,300 Restricted Shares granted to 276 Participants. Upon completion of the grant, the total share capital of the Company was changed from 17,134,943,251 shares to 17,161,591,551 shares.

(2) Transfer of Changes in Shareholding

The registrations of shares for the first grant and the reserved grant of the Company's 2021 Restricted Share Incentive Scheme were completed on 13 June 2022 and 23 December 2022 respectively, and CSDC Shanghai Branch issued the Securities Transfer Registration Certificates to the Company on 14 June 2022 and 26 December 2022 respectively.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

3. SHARE ISSUANCE AND LISTING

(1) Securities Issuance in the Past Three Years

In 2022, the Company implemented the Restricted Share Incentive Scheme, which granted Restricted Shares to the Participants at RMB3.08 per share and RMB2.21 per share on 25 May 2022 and 24 November 2022 respectively as the first grant date and reserved grant date, and issued 138,918,600 A shares to 1,206 Participants.

According to the relevant provisions of the Administrative Measures on Share Incentives of Listed Companies, the Participants of the Company's Restricted Share Incentive Scheme include the Company's directors, senior management personnel, middle management personnel and core technical (business) backbones. The grant price of the Restricted Shares shall not be lower than the nominal value of such shares and shall not be lower than 50% of the higher of: (1) the average trading price of the Company's A shares on the trading day preceding the date of the announcement of the Board resolution regarding the grant of Restricted Shares; (2) any one of the average trading prices of the Company's A shares in the last 20, 60 or 120 trading days preceding the date of the announcement of the Board resolution regarding the grant of Restricted Shares. The determination of Participants and grant prices of the first grant and reserved grant of Restricted Shares were in compliance with the aforementioned regulations.

The aforesaid Restricted Shares of the first grant and the reserved grant under the Restricted Share Incentive Scheme shall be unlocked in three tranches on the first trading day following the end of 24-month period, 36-month period and 48-month period from the grant registration date, and the proportion of unlocking in each tranche shall be 40%, 30% and 30%, respectively. The actual number of Restricted Shares that can be unlocked shall be linked to the performance evaluation results of the corresponding year.

Save the additional issuance of A shares above, the Company had no new share issuance in the past three years.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

(2) Changes in Total Number of Shares and the Shareholding Structure of the Company

During the reporting period, the total number of shares and changes in the shareholding structure of the Company are as follows:

	As at the beginning of the reporting period		Increase or decrease during the reporting period	As at the end of the reporting period	
	Number of shares (shares)	Shareholding ratio (%)	(shares)	Number of shares (shares)	Shareholding ratio (%)
Shares subject to trading moratorium	–	–	138,918,600	138,918,600	0.81
1. Renminbi ordinary shares	–	–	138,918,600	138,918,600	0.81
2. Overseas listed foreign shares	–	–	–	–	–
Tradable shares not subject to trading moratorium	17,022,672,951	100.00	–	17,022,672,951	99.19
1. Renminbi ordinary shares	13,078,706,983	76.83	–	13,078,706,983	76.21
2. Overseas listed foreign shares	3,943,965,968	23.17	–	3,943,965,983	22.98
Total	17,022,672,951	100.00	138,918,600	17,161,591,551	100.00

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

4. SUBSTANTIAL SHAREHOLDERS WITH SHAREHOLDING OF 5% OR MORE

So far as the Directors are aware, as of 31 December 2022, the following persons (other than the Directors, Supervisors and chief executive of the Company) had interests or short positions in the shares or underlying shares of the Company which would fall to be disclosed under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance of Hong Kong, or which were recorded in the register required to be kept by the Company pursuant to Section 336 of the Securities and Futures Ordinance of Hong Kong, or as otherwise notified to the Company and the Hong Kong Stock Exchange.

Name of substantial shareholder (full name)	Class of shares	Number of shares held	Capacity	Percentage in the relevant class of issued share capital	Percentage in total issued share capital
Aluminum Corporation of China	A shares	5,295,895,019(L) ^{Note 1}	Beneficial owner and interests of controlled corporation	40.07%(L)	30.86%(L)
	H shares	178,590,000(L) ^{Note 1}	Interests of controlled corporation	4.53%(L)	1.04%(L)
BlackRock, Inc.	H shares	259,938,196(L) ^{Note 2}	Interests of controlled corporation	6.59%(L)	1.51%(L)
		12,512,000(S) ^{Note 2}	Interests of controlled corporation	0.32%(S)	0.07%(S)

The letter (L) denotes a long position and the letter (S) denotes a short position. The information of H shareholders is based on the disclosure of interests system of the Hong Kong Stock Exchange.

Note 1: These interests included 5,050,376,970 A shares directly held by Chinalco, and an aggregate interest of 245,518,049 A shares and 178,590,000 H shares held by various controlled subsidiaries of Chinalco, comprising 238,377,795 A shares held by Baotou Aluminum (Group) Co., Ltd., 7,140,254 A shares held by Chinalco Asset Operation and Management Co., Ltd. ("**Chinalco Asset**") (the A shares of the Company held by Chinalco Asset were previously held by Chalco Shanxi Aluminum Co., Ltd. ("**Shanxi Aluminum**"), which was transferred to Chinalco Asset in March 2022) and 178,590,000 H shares held by Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司).

Note 2: These interests were held directly by various corporations controlled by BlackRock, Inc. Among the aggregate interests in the long position in H shares, 1,848,000 H shares were held as derivatives. Among the aggregate interests in the short position in H shares, 10,708,000 H shares were held as derivatives.

Save as disclosed above and so far as the Directors are aware, as of 31 December 2022, no other person (other than the Directors, Supervisors and chief executive of the Company) had any interest or short position in the shares or underlying shares of the Company (as the case may be) which would fall to be disclosed to the Company and the Hong Kong Stock Exchange under the provisions of Divisions 2 and 3 of Part XV of the Securities and Futures Ordinance of Hong Kong and as recorded in the register required to be kept under Section 336 of the Securities and Futures Ordinance of Hong Kong, or was otherwise a substantial shareholder of the Company.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

5. NUMBER OF SHAREHOLDERS

Unit: Number of shareholders

Total number of shareholders as of 31 December 2022 526,589

6. PARTICULARS OF SHAREHOLDINGS HELD BY TOP TEN SHAREHOLDERS

As of 31 December 2022, particulars of shareholdings held by top ten shareholders are set out as follows:

Name of shareholder (full name)	Number of shares held as at the end of the reporting period	Class of shares	Percentage of shareholding (%)
Aluminum Corporation of China ^{Note 1}	5,050,376,970	A shares	29.43
Hong Kong Securities Clearing Company Limited (H shares) ^{Note 2}	3,934,615,479	H shares	22.93
China Life Insurance Company Limited (中國人壽保險股份有限公司)	558,793,900	A shares	3.26
China Securities Finance Corporation Limited	448,284,993	A shares	2.61
Huarong Ruitong Equity Investment Management Co., Ltd. (華融瑞通股權投資管理有限公司) ^{Note 3}	332,217,827	A shares	1.94
Hong Kong Securities Clearing Company Limited (A shares)	243,510,115	A shares	1.42
Baotou Aluminum (Group) Co., Ltd.	238,377,795	A shares	1.39

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

Name of shareholder (full name)	Number of shares held as at the end of the reporting period	Class of shares	Percentage of shareholding (%)
CSC Financial – China Huarong Asset Management Co., Ltd. – CSC – Xianfeng Single Asset Management Plan* <i>Note 3</i> (中信建投證券－中國華融資產管理股份有限公司－中信建投－先鋒單一資產管理計劃)	199,289,500	A shares	1.16
CITIC Securities – Huarong Ruitong Equity Investment Management Co., Ltd. – CITIC Securities – Changfeng Single Asset Management Plan* <i>Note 3</i> (中信證券－華融瑞通股權投資管理有限公司－中信證券－長風單一資產管理計劃)	128,512,000	A shares	0.75
Xie Chun	117,520,081	A shares	0.68

Note 1: The number of shares held by Chinalco doesn't include the A shares of the Company indirectly held by it through its subsidiaries Baotou Aluminum (Group) Co., Ltd. and Chinalco Asset and the H shares of the Company indirectly held by it through its subsidiary Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司). As of 31 December 2022, Chinalco together with its subsidiaries held an aggregate of 5,474,485,019 shares, among which 5,295,895,019 shares were A shares and 178,590,000 shares were H shares, accounting for approximately 31.90% of the total share capital of the Company.

Note 2: The 3,934,615,479 H shares of the Company held by Hong Kong Securities Clearing Company Limited include 178,590,000 H shares it holds on behalf of Aluminum Corporation of China Overseas Holdings Limited* (中鋁海外控股有限公司), a subsidiary of Chinalco.

Note 3: The beneficial owner of the shares of the Company held by CSC Financial – China Huarong Asset Management Co., Ltd. – CSC – Xianfeng Single Asset Management Plan* (中信建投證券－中國華融資產管理股份有限公司－中信建投－先鋒單一資產管理計劃) and CITIC Securities – Huarong Ruitong Equity Investment Management Co., Ltd. – CITIC Securities – Changfeng Single Asset Management Plan* (中信證券－華融瑞通股權投資管理有限公司－中信證券－長風單一資產管理計劃) is Huarong Ruitong Equity Investment Management Co., Ltd. (華融瑞通股權投資管理有限公司), and these two shareholders manage part of the Company's shares held by Huarong Ruitong Equity Investment Management Co., Ltd. (華融瑞通股權投資管理有限公司) under entrustment.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

7. PARTICULARS OF THE CONTROLLING SHAREHOLDER

(1) Particulars of the Controlling Shareholder

Name of the controlling shareholder:	Aluminum Corporation of China
Legal representative:	Duan Xiangdong
Registered capital:	RMB25.2 billion
Date of incorporation:	21 February 2001
Principal operating or managing activities:	Bauxite mining (limited to the bauxite mining at Guizhou Maochang Mine); deployment of personnel necessary for overseas engineering projects commensurating with its capacity, scale and performance; operation and management of state-owned assets and equities; production and sales of aluminum, copper, rare earth and related non-ferrous metals mineral products, smelted products, processed products and carbon products; exploration design, general project contracting, construction and installation; equipment manufacturing; technological development and technical service; import and export businesses.

Particulars and Changes of Shareholding Structure, and Details of Substantial Shareholders (Continued)

(2) The Controlling Relationship between the Company and the Controlling Shareholder and Actual Controller



Note: The controlling shareholder of the Company is Chinalco, and the actual controller of the Company is the State-owned Assets Supervision and Administration Commission of the State Council. As of 31 December 2022, Chinalco directly held approximately 29.43% equity interest in the Company and held a total of approximately 31.90% equity interest in the Company together with its subsidiaries.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the foreground on the left, with its blades extending towards the top of the frame. Several other smaller turbines are visible in the distance, creating a sense of depth. The sky is filled with soft, wispy clouds.

Chairman's Statement

Dear Shareholders,

I hereby present the annual report of the Group for the financial year ended 31 December 2022 for shareholders' review. On behalf of the Board and all employees of the Company, I would like to express our sincere gratitude to all shareholders for your care and support for the Company.

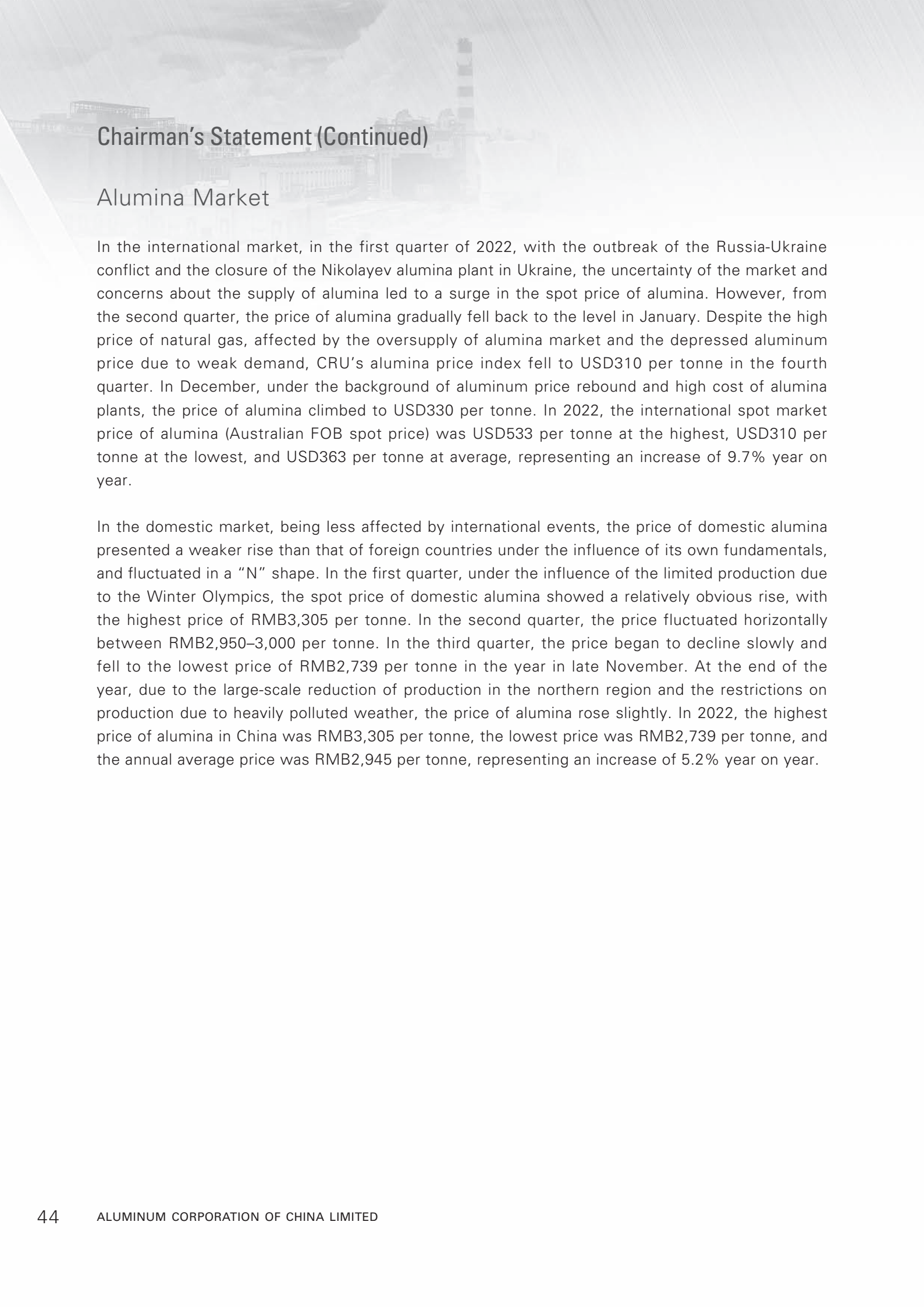
PRODUCT MARKET REVIEW

In 2022, affected by the contraction of monetary policies in major developed countries and the weakness of the economies of emerging market countries, the growth rate of global GDP declined significantly, and the inflation rate of major economies and regions in the world increased substantially. Geopolitical conflicts, energy crisis and other factors have led to the trend of commodity prices rising and falling. The global aluminum industry has experienced significant fluctuations in price, production, demand, trade, etc.

Bauxite Market

In 2022, affected by environmental protection treatment, China's bauxite mining situation remained severe, with limited supply and high prices. Although the ore grade has declined, the price of domestic bauxite has risen slowly due to the decreased supply, decreased ore grade and the increased mining cost.

In terms of imported ores, the price has kept rising as a whole, driven by the high demand for imported ores due to the new capacity of domestic alumina and the increase of mining costs due to the rise of energy prices. The main suppliers are still Guinea, Australia and Indonesia. In 2022, China imported 125.47 million tons of bauxite, representing an increase of 16.9% year on year, and the import dependence further increased. Among them, imports from Guinea accounted for 56.07%, representing an increase of 28.36% year on year.



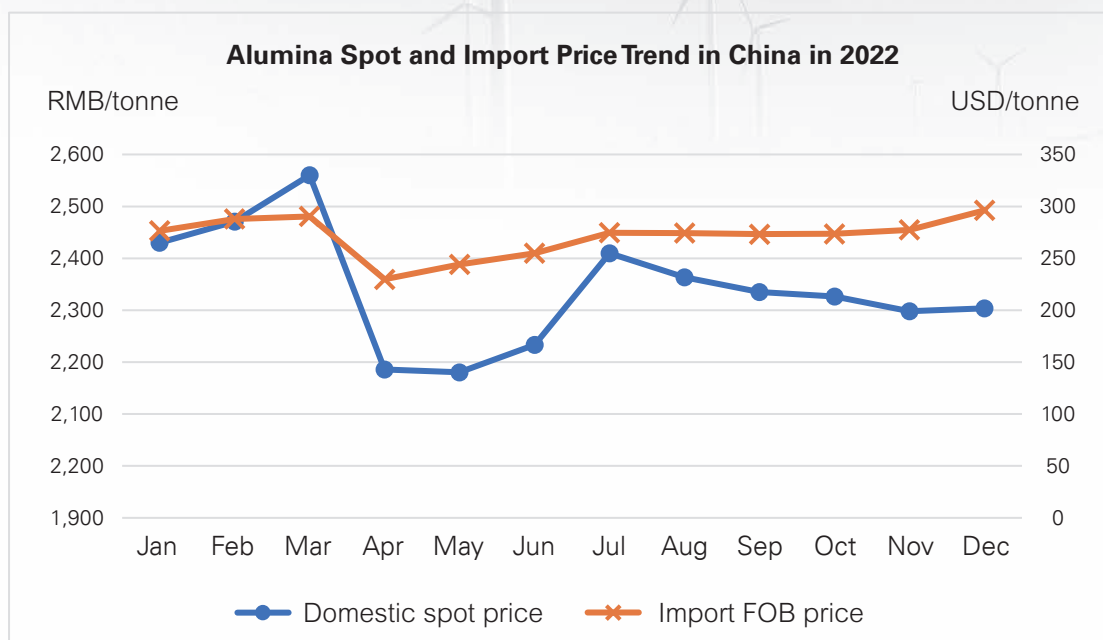
Chairman's Statement (Continued)

Alumina Market

In the international market, in the first quarter of 2022, with the outbreak of the Russia-Ukraine conflict and the closure of the Nikolayev alumina plant in Ukraine, the uncertainty of the market and concerns about the supply of alumina led to a surge in the spot price of alumina. However, from the second quarter, the price of alumina gradually fell back to the level in January. Despite the high price of natural gas, affected by the oversupply of alumina market and the depressed aluminum price due to weak demand, CRU's alumina price index fell to USD310 per tonne in the fourth quarter. In December, under the background of aluminum price rebound and high cost of alumina plants, the price of alumina climbed to USD330 per tonne. In 2022, the international spot market price of alumina (Australian FOB spot price) was USD533 per tonne at the highest, USD310 per tonne at the lowest, and USD363 per tonne at average, representing an increase of 9.7% year on year.

In the domestic market, being less affected by international events, the price of domestic alumina presented a weaker rise than that of foreign countries under the influence of its own fundamentals, and fluctuated in a "N" shape. In the first quarter, under the influence of the limited production due to the Winter Olympics, the spot price of domestic alumina showed a relatively obvious rise, with the highest price of RMB3,305 per tonne. In the second quarter, the price fluctuated horizontally between RMB2,950–3,000 per tonne. In the third quarter, the price began to decline slowly and fell to the lowest price of RMB2,739 per tonne in the year in late November. At the end of the year, due to the large-scale reduction of production in the northern region and the restrictions on production due to heavily polluted weather, the price of alumina rose slightly. In 2022, the highest price of alumina in China was RMB3,305 per tonne, the lowest price was RMB2,739 per tonne, and the annual average price was RMB2,945 per tonne, representing an increase of 5.2% year on year.

Chairman's Statement (Continued)



Source: atk.com and Platts

According to the statistics, the global output and consumption of alumina for 2022 were approximately 137.02 million tonnes and approximately 136.87 million tonnes, respectively, representing a year-on-year increase of 2% and 2.2%, respectively. The domestic output and consumption of alumina were approximately 79.76 million tonnes and approximately 80.91 million tonnes, respectively, representing a year-on-year increase of 6.1% and 3.7%, respectively, accounting for 58.21% and 59.11% of global output and consumption, respectively. As of the end of December 2022, the alumina capacity utilization rate in the world was approximately 76.7%, while that of the PRC was approximately 80.1%.

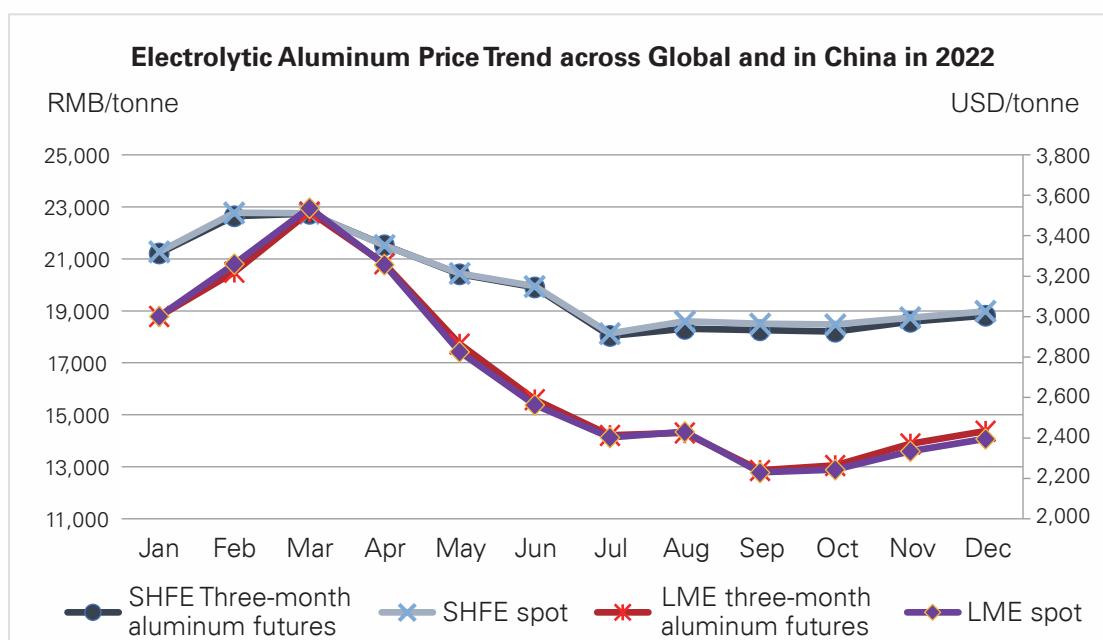
Primary Aluminum Market

In 2022, the global aluminum price fluctuated greatly due to the US Federal Reserve's interest rate increase and European geopolitical factors. In the first quarter, the global aluminum price rose continuously under the influence of the production reduction of European electrolytic aluminum plants, the low inventory and the intensification of the Russia-Ukraine conflict, and then fell from the high level due to the concern of the global economic recession caused by the constant interest rate increase in many countries. In the fourth quarter, aluminum prices rebounded from the bottom due to factors such as pessimism repair and supply contraction, but the rebound was limited.

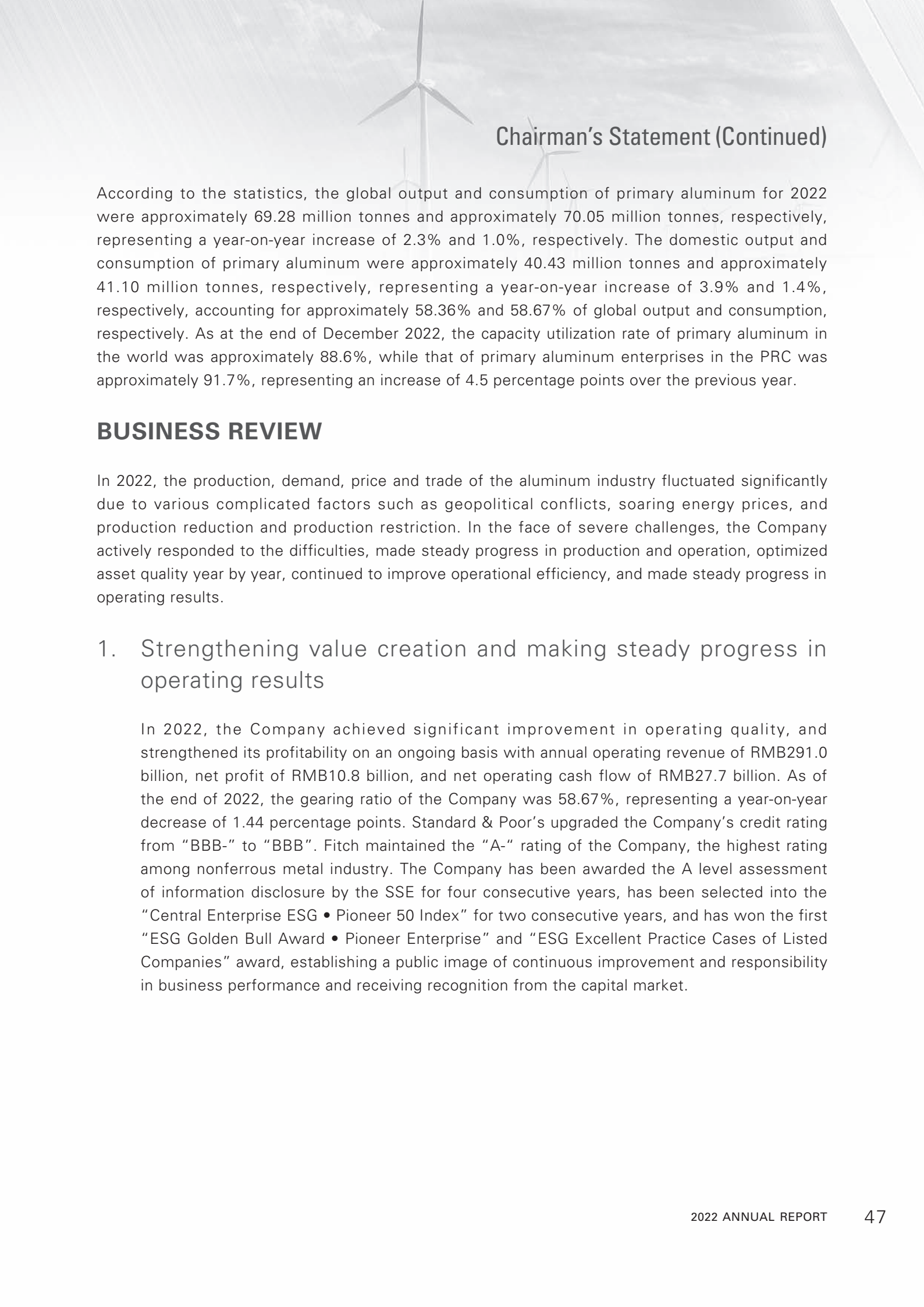
Chairman's Statement (Continued)

In the international market, in the first quarter of 2022, after the start of the Russia-Ukraine conflict, the concerns about supply led to the price of aluminum soaring to the highest point of the year in March. However, since the second quarter, the average prices of three-month aluminum futures and spot aluminum at LME reached the lowest point in September, and stayed below USD2,400 per tonne in the fourth quarter, which were impacted by factors such as the slowdown in the demand growth in the United States, the downturn in Chinese consumption, the sharp decline in orders in Europe, and the stronger US dollar. In 2022, the average price of three-month aluminum futures and spot aluminum at LME were approximately USD2,713 per tonne and USD2,703 per tonne, respectively, representing an increase of 9.1% and 9% over that of 2021, respectively.

In the domestic market, the price of domestic electrolytic aluminum fluctuated significantly in 2022. In general, it showed a sharp rise in the first quarter; pulled back in the second quarter after being affected by adverse factors such as the shutdown of factories and the decrease in demand; bottomed out and rebounded after the end of July due to large-scale capacity reduction and shutdown of electrolytic aluminum plants in the region resulting from the lack of power supply in many southern provinces, the increase of operating pressure, and the limited production in the heating season, as well as the global macroeconomic pessimism improvement. However, the rebound was limited due to the continued downturn in demand. Overall, the center of gravity of the aluminum price continued to move upward throughout the year. In 2022, the average prices of three-month aluminum futures and current month aluminum futures at SHFE were RMB19,837 per tonne and RMB19,950 per tonne, representing an increase of 5.0% and 5.3% over that of 2021, respectively.



Source: Shanghai Futures Exchange and LME



Chairman's Statement (Continued)

According to the statistics, the global output and consumption of primary aluminum for 2022 were approximately 69.28 million tonnes and approximately 70.05 million tonnes, respectively, representing a year-on-year increase of 2.3% and 1.0%, respectively. The domestic output and consumption of primary aluminum were approximately 40.43 million tonnes and approximately 41.10 million tonnes, respectively, representing a year-on-year increase of 3.9% and 1.4%, respectively, accounting for approximately 58.36% and 58.67% of global output and consumption, respectively. As at the end of December 2022, the capacity utilization rate of primary aluminum in the world was approximately 88.6%, while that of primary aluminum enterprises in the PRC was approximately 91.7%, representing an increase of 4.5 percentage points over the previous year.

BUSINESS REVIEW

In 2022, the production, demand, price and trade of the aluminum industry fluctuated significantly due to various complicated factors such as geopolitical conflicts, soaring energy prices, and production reduction and production restriction. In the face of severe challenges, the Company actively responded to the difficulties, made steady progress in production and operation, optimized asset quality year by year, continued to improve operational efficiency, and made steady progress in operating results.

1. Strengthening value creation and making steady progress in operating results

In 2022, the Company achieved significant improvement in operating quality, and strengthened its profitability on an ongoing basis with annual operating revenue of RMB291.0 billion, net profit of RMB10.8 billion, and net operating cash flow of RMB27.7 billion. As of the end of 2022, the gearing ratio of the Company was 58.67%, representing a year-on-year decrease of 1.44 percentage points. Standard & Poor's upgraded the Company's credit rating from "BBB-" to "BBB". Fitch maintained the "A-" rating of the Company, the highest rating among nonferrous metal industry. The Company has been awarded the A level assessment of information disclosure by the SSE for four consecutive years, has been selected into the "Central Enterprise ESG • Pioneer 50 Index" for two consecutive years, and has won the first "ESG Golden Bull Award • Pioneer Enterprise" and "ESG Excellent Practice Cases of Listed Companies" award, establishing a public image of continuous improvement and responsibility in business performance and receiving recognition from the capital market.



Chairman's Statement (Continued)

2. Strengthening benchmarking management and achieving significant results in cost reduction and efficiency increase

The Company focused on accelerating the resumption of work and production and improving production capacity. The utilization rate of electrolytic aluminum production capacity increased by 7.7 percentage points year on year, and the utilization rate of carbon production capacity increased by 6.8 percentage points. According to the six-step approach and "one policy for one enterprise" spirit, the Company deepened all-factor benchmarking, carried out the process benchmarking by disciplines, continued to consolidate the work results of "five standards and one control", and comprehensively promoted the "Three Transformations and One Improvement" management mode, making the times of equipment unplanned downtime decrease by 17.8% year on year, the alumina process capability index be optimized by 8.2%, and the optimization rate of key indicators of electrolytic aluminum reach more than 26.8%. The alumina first grade product rate, the carbon first grade product rate, and the proportion of tanks with liquid aluminum above 99.85 increased by 5.81, 4.05 and 7.64 percentage points year on year, respectively, reaching the highest level in history and winning 132 QC achievement awards at provincial and ministerial levels. The Company strengthened carbon emission management, and the carbon emission intensity per unit product of alumina, electrolytic aluminum and carbon decreased by 4.90%, 5.98% and 2.10% respectively year on year. The Company adhered to comprehensive budget management, implemented the three-year cost reduction plan 2.0, strengthened the closed-loop management of cost from five aspects, and solidly carried out special actions such as improving quality and efficiency and rigid cost reduction of 1%, so that the cost reduction of electrolytic aluminum outperformed the industry average.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its blades extending towards the top. Other smaller turbines are visible in the distance, creating a sense of depth. The overall tone is professional and modern.

Chairman's Statement (Continued)

3. Enforcing the implementation of the strategy and strengthening the development potential on an ongoing basis

The Company continued to optimize the core industry. Guangxi Jiaomei Bauxite Mines with an annual capacity of 2 million tonnes of bauxite was completed and put into operation in advance; Zunyi Aluminium acquired 2 new bauxite exploration rights; alumina projects in Indonesia and Guinea actively progressed; Huayun Phase III electrolytic aluminum project accelerated the determination of boundary conditions; Ningxia Energy increased its coal production capacity by more than 2 million tonnes; projects of low-sodium microcrystalline (phase I), gallium metal and 4N high-purity aluminum (expansion) was completed and put into operation, and the construction of high-purity aluminum nitride and 4N high-purity alumina industrialization demonstration project was started; the Ningdong 250MW photovoltaic project was completed and partially connected to the grid, the distributed photovoltaic project of its affiliated enterprises was steadily promoted, making the Company's clean energy consumption ratio of electrolytic aluminum reach 45%. The comprehensive utilization rate of red mud was 10.7%, reaching the industry-leading level. Regenerated aluminum consumptions doubled year-on-year. The operation of the secondary aluminum ash with collaboration of alumina production line as well as the overhaul slag and carbon slag production line has led the green and low-carbon development of the full industry chain. Chalco Trading, Chalco Materials and Chalco Logistics played coordinating roles, innovated business models, and accelerated digital empowerment, significantly improving market control and leadership.



Chairman's Statement (Continued)

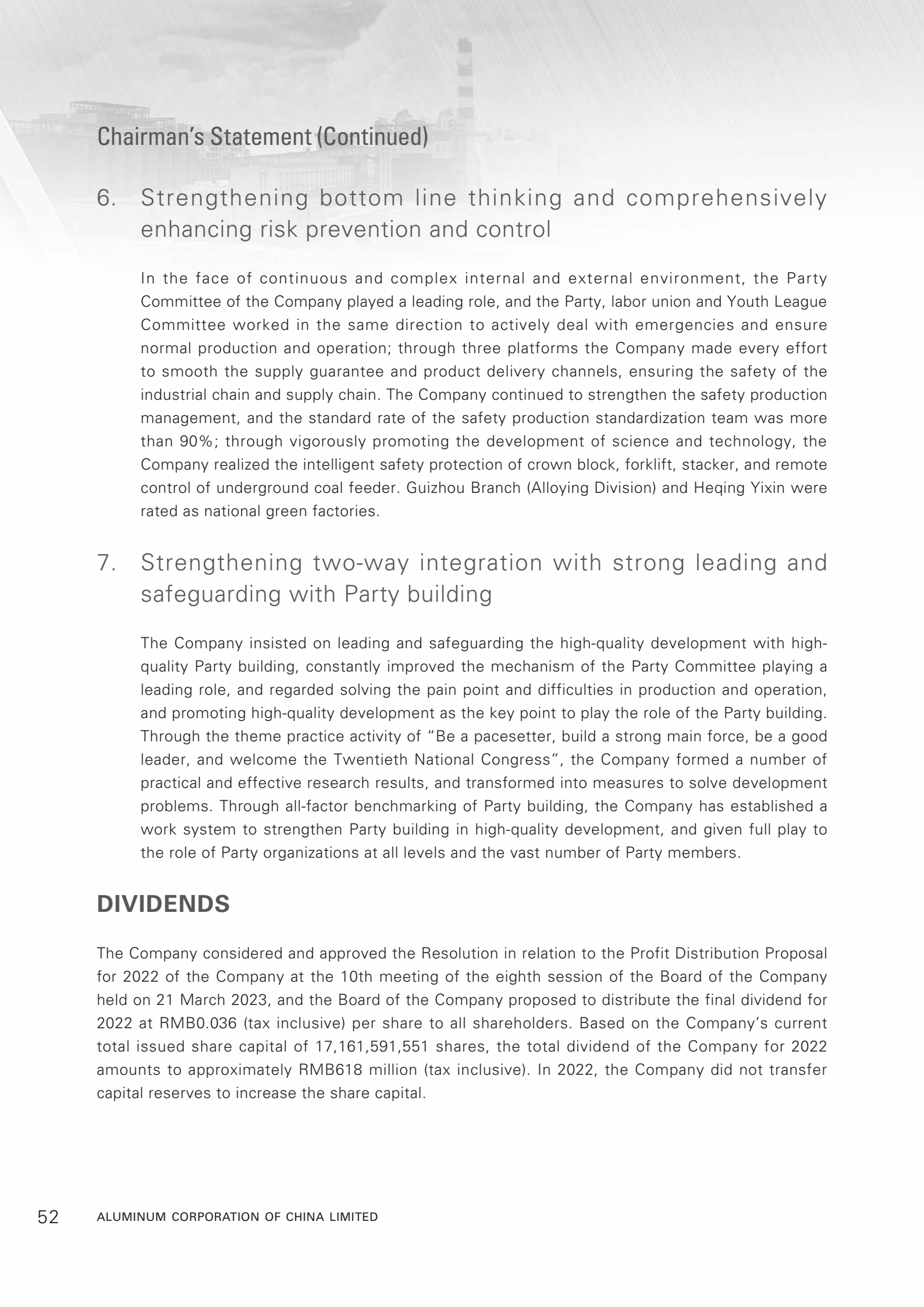
4. Strengthening the support of science and technology with continuously emerging of innovative achievements

The Company has established a special fund guarantee mechanism for basic scientific research activities, continuously optimized the platform layout, and newly established four professional technology centers to achieve full coverage of all professional fields. Zhengzhou Institute has completed the first round of "science and technology reform" demonstration action, established a mechanism for the Party Committee team to connect with science and technology experts, implemented incentive models such as project performance bonus, equity co-investment, and dividends for technology-based enterprises in a classified manner, and realized a significant increase in the numbers of national projects it has undertaken and the scientific and technological achievements at the provincial and ministerial levels. The Company has initially established a three-level scientific and technological team system of "chief scientist – professional chief engineer – excellent engineer", implemented 65 key research and development projects throughout the year, led to complete 15 national, industrial and group standards, and obtained 356 patent authorizations. Guangxi branch, Yunnan Aluminum, Yunlv Haixin and Yunlv Yongxin have been recognized as national intellectual property advantage enterprises. The Company issued the first set of intelligent factory construction specifications for the nonferrous industry and the first industrial control network security specifications for central enterprises. Guangxi Huasheng, Wenshan Aluminum and Baotou Aluminum have accelerated smart factory pilot projects, with labor productivity and process indexes being significantly improved. The four modules of the production control system of the Technology Center of Excellence were put into trial operation in three enterprises including Guangxi Huasheng. The completion of the bulk sourcing module of "Aluminum E-commerce Platform (鋁約益採)" and the online operation of the network freight platform, "Chalco Access to the World (鋁通天下)", helped to take a new step in the digital transformation of the supply chain.

5. Strengthening the quality and efficiency of reform and fully stimulating the endogenous impetus

The Company's three-year reform of state-owned enterprises was completed with high quality, which promoted the institutionalization and standardization of the Party's leadership into corporate governance; further improved the boundaries of powers and responsibilities, decision-making procedures and rules of procedure, comprehensively established the dynamic adjustment of the authorization of the Board of Directors and the regular reporting mechanism of the management to the Board of Directors, ensuring that the Company and important subsidiaries implement the powers of the Board of Directors in accordance with the law. Through the acquisition of shares of Yunnan Aluminum and Pingguo Aluminum, the Company implemented specialized management integration of fine alumina, carbon and alloy, the integrated management integration of enterprises in Shanxi and Henan, and the integration of procurement and logistics business of regional enterprises such as Chalco Mining and Shanxi New Material, further optimizing the resource allocation of the Company.

By deepening the reform of the three systems, the Company comprehensively implemented the tenure system and contractual management, implemented the reform of professional managers, established the mechanism for adjustment of the least competent and the elimination of incompetence of enterprise leaders, and continuously optimized the employment of workers. The number of contractors and the amount of outsourcing contracts were reduced by 54.6% and 40.2%, respectively, and the labor productivity of alumina, electrolytic aluminum and carbon increased by 12.7%, 16.6% and 14.8% year on year, respectively; by implementing equity incentives and improving the enthusiasm and initiative of key staff, the Company has taken a key step in the construction of medium and long-term incentive mechanism.



Chairman's Statement (Continued)

6. Strengthening bottom line thinking and comprehensively enhancing risk prevention and control

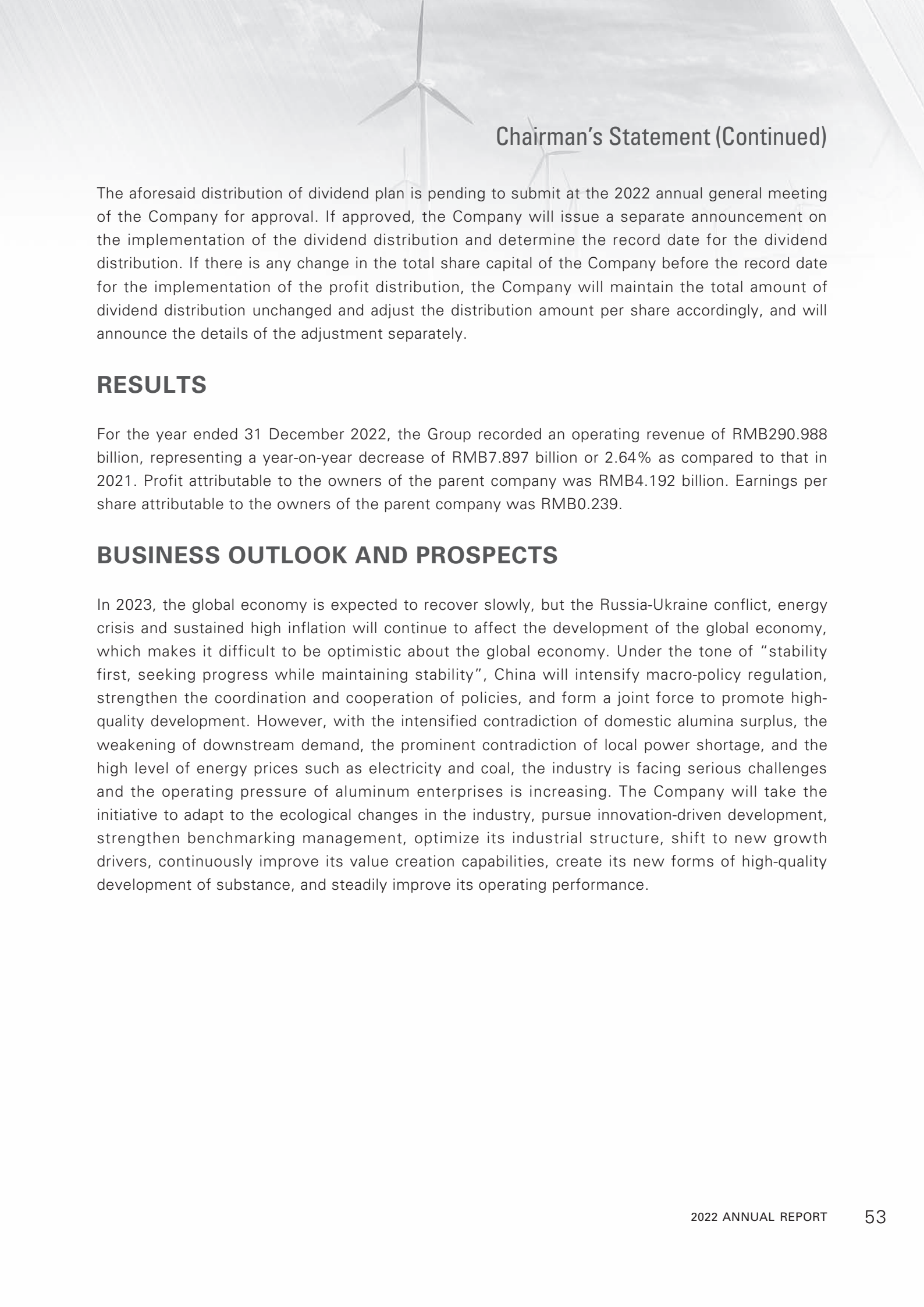
In the face of continuous and complex internal and external environment, the Party Committee of the Company played a leading role, and the Party, labor union and Youth League Committee worked in the same direction to actively deal with emergencies and ensure normal production and operation; through three platforms the Company made every effort to smooth the supply guarantee and product delivery channels, ensuring the safety of the industrial chain and supply chain. The Company continued to strengthen the safety production management, and the standard rate of the safety production standardization team was more than 90%; through vigorously promoting the development of science and technology, the Company realized the intelligent safety protection of crown block, forklift, stacker, and remote control of underground coal feeder. Guizhou Branch (Alloying Division) and Heqing Yixin were rated as national green factories.

7. Strengthening two-way integration with strong leading and safeguarding with Party building

The Company insisted on leading and safeguarding the high-quality development with high-quality Party building, constantly improved the mechanism of the Party Committee playing a leading role, and regarded solving the pain point and difficulties in production and operation, and promoting high-quality development as the key point to play the role of the Party building. Through the theme practice activity of "Be a pacesetter, build a strong main force, be a good leader, and welcome the Twentieth National Congress", the Company formed a number of practical and effective research results, and transformed into measures to solve development problems. Through all-factor benchmarking of Party building, the Company has established a work system to strengthen Party building in high-quality development, and given full play to the role of Party organizations at all levels and the vast number of Party members.

DIVIDENDS

The Company considered and approved the Resolution in relation to the Profit Distribution Proposal for 2022 of the Company at the 10th meeting of the eighth session of the Board of the Company held on 21 March 2023, and the Board of the Company proposed to distribute the final dividend for 2022 at RMB0.036 (tax inclusive) per share to all shareholders. Based on the Company's current total issued share capital of 17,161,591,551 shares, the total dividend of the Company for 2022 amounts to approximately RMB618 million (tax inclusive). In 2022, the Company did not transfer capital reserves to increase the share capital.



Chairman's Statement (Continued)

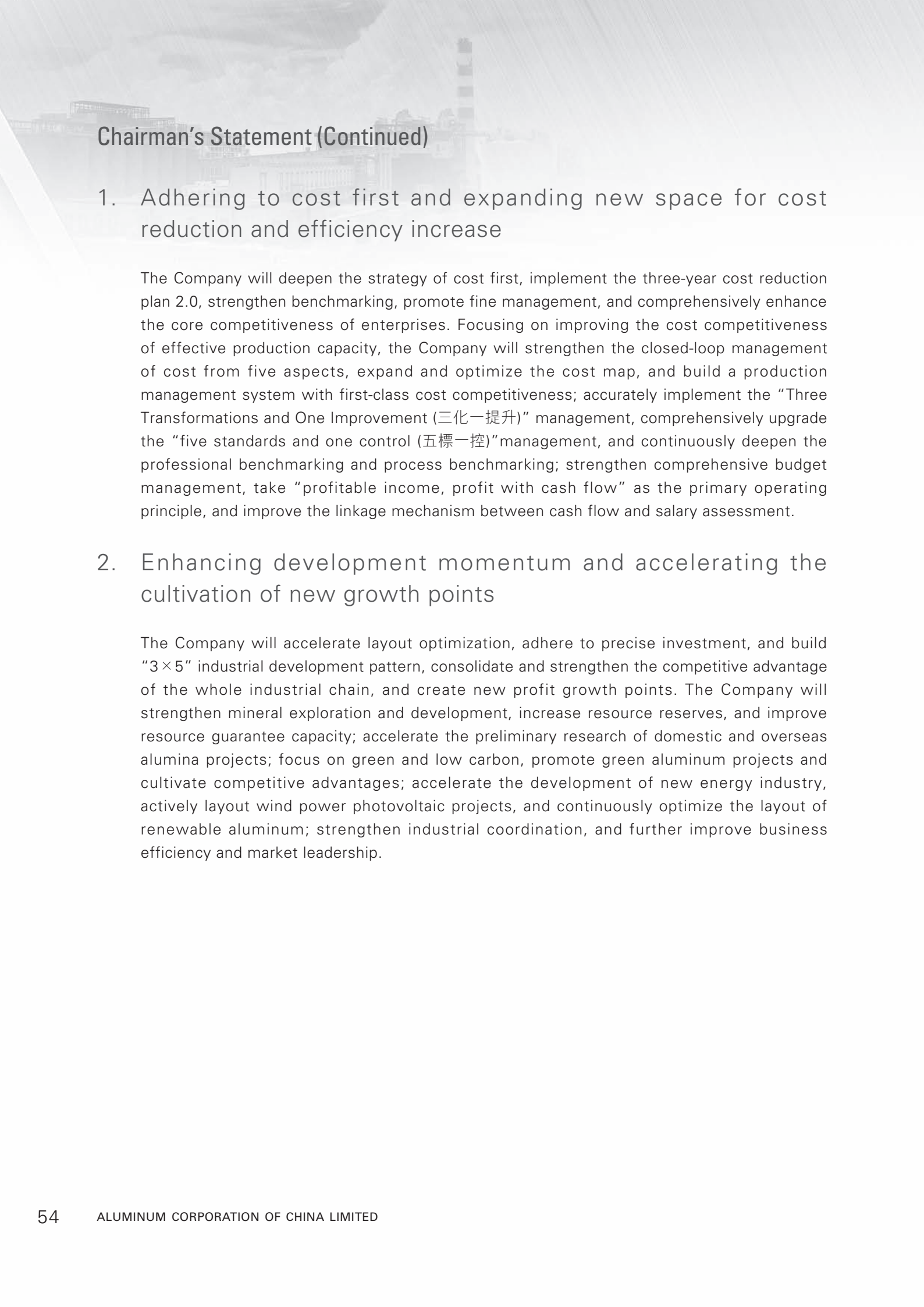
The aforesaid distribution of dividend plan is pending to submit at the 2022 annual general meeting of the Company for approval. If approved, the Company will issue a separate announcement on the implementation of the dividend distribution and determine the record date for the dividend distribution. If there is any change in the total share capital of the Company before the record date for the implementation of the profit distribution, the Company will maintain the total amount of dividend distribution unchanged and adjust the distribution amount per share accordingly, and will announce the details of the adjustment separately.

RESULTS

For the year ended 31 December 2022, the Group recorded an operating revenue of RMB290.988 billion, representing a year-on-year decrease of RMB7.897 billion or 2.64% as compared to that in 2021. Profit attributable to the owners of the parent company was RMB4.192 billion. Earnings per share attributable to the owners of the parent company was RMB0.239.

BUSINESS OUTLOOK AND PROSPECTS

In 2023, the global economy is expected to recover slowly, but the Russia-Ukraine conflict, energy crisis and sustained high inflation will continue to affect the development of the global economy, which makes it difficult to be optimistic about the global economy. Under the tone of “stability first, seeking progress while maintaining stability”, China will intensify macro-policy regulation, strengthen the coordination and cooperation of policies, and form a joint force to promote high-quality development. However, with the intensified contradiction of domestic alumina surplus, the weakening of downstream demand, the prominent contradiction of local power shortage, and the high level of energy prices such as electricity and coal, the industry is facing serious challenges and the operating pressure of aluminum enterprises is increasing. The Company will take the initiative to adapt to the ecological changes in the industry, pursue innovation-driven development, strengthen benchmarking management, optimize its industrial structure, shift to new growth drivers, continuously improve its value creation capabilities, create its new forms of high-quality development of substance, and steadily improve its operating performance.



Chairman's Statement (Continued)

1. Adhering to cost first and expanding new space for cost reduction and efficiency increase

The Company will deepen the strategy of cost first, implement the three-year cost reduction plan 2.0, strengthen benchmarking, promote fine management, and comprehensively enhance the core competitiveness of enterprises. Focusing on improving the cost competitiveness of effective production capacity, the Company will strengthen the closed-loop management of cost from five aspects, expand and optimize the cost map, and build a production management system with first-class cost competitiveness; accurately implement the "Three Transformations and One Improvement (三化一提升)" management, comprehensively upgrade the "five standards and one control (五標一控)" management, and continuously deepen the professional benchmarking and process benchmarking; strengthen comprehensive budget management, take "profitable income, profit with cash flow" as the primary operating principle, and improve the linkage mechanism between cash flow and salary assessment.

2. Enhancing development momentum and accelerating the cultivation of new growth points

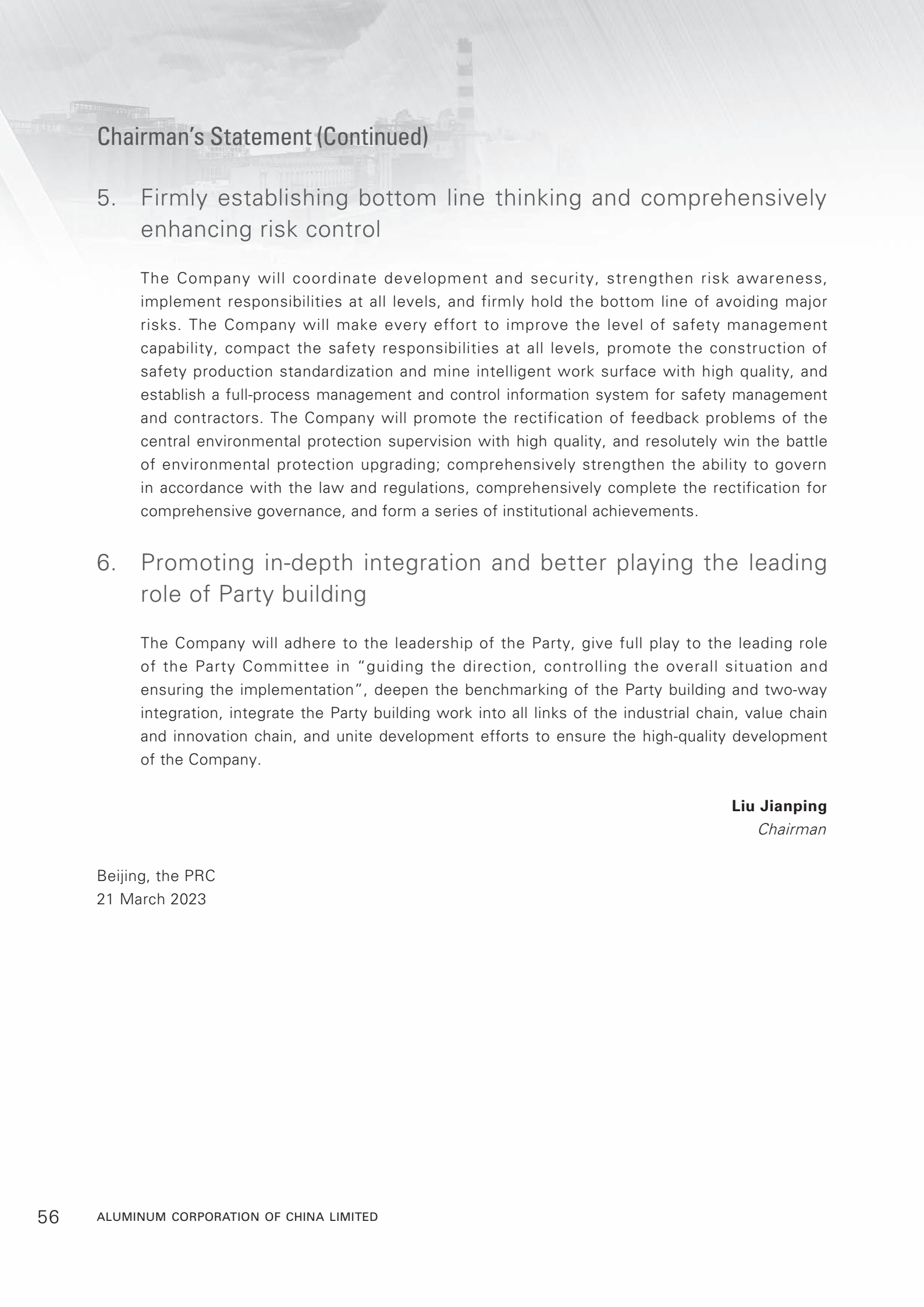
The Company will accelerate layout optimization, adhere to precise investment, and build "3×5" industrial development pattern, consolidate and strengthen the competitive advantage of the whole industrial chain, and create new profit growth points. The Company will strengthen mineral exploration and development, increase resource reserves, and improve resource guarantee capacity; accelerate the preliminary research of domestic and overseas alumina projects; focus on green and low carbon, promote green aluminum projects and cultivate competitive advantages; accelerate the development of new energy industry, actively layout wind power photovoltaic projects, and continuously optimize the layout of renewable aluminum; strengthen industrial coordination, and further improve business efficiency and market leadership.

3. Focusing on independent innovation and forging support for scientific and technological innovation

The Company will adhere to innovation-driven development, optimize the scientific and technological innovation system, improve the efficiency of scientific and technological investment, strive to create the source of original technology, and create new momentum and advantages for development. The Company will continuously improve the scientific and technological innovation system and mechanism, coordinate the special funds to support the development of scientific research, and encourage enterprises to give priority to the application of the Company's independent scientific and technological research and development achievements; accelerate the key technology research and achievement transformation, vigorously promote the application of energy saving and carbon reduction technology, accelerate the technological breakthrough of trace element extraction and promote industrial demonstration and promotion, and promote the construction of high-purity and ultra-pure industrial demonstration projects; step up the transformation of digital intelligence, actively cultivate digital thinking, unify data standards, and achieve new breakthroughs in the construction of digital intelligence. The Company will accelerate the construction of smart factories and new energy smart dispatching centers, and create industry benchmarks; serve the "double carbon" strategy, and carry out research on digital electrolytic cell and electrolytic cell flexible regulation technology; accelerate the construction of the Company's unified big data operation analysis platform, optimize the collaborative office platform, achieve full coverage of the ERP system, and further improve the management and operation efficiency.

4. Comprehensively deepening reform and stimulating new vitality of entrepreneurship

The Company will continue to transform the operating mechanism, further deepen the reform of the "three systems", and promote the universalization and normalization of the "three capabilities" mechanism. The Company will solidly carry out the work to improve the quality of listed companies held by central enterprises, better play the functional role of listed companies' platform, and support the main businesses to become stronger, better and larger; explore the implementation of differentiated classification authorization management and control, so as to better stimulate the vitality of enterprises; grasp the opportunity of industry restructuring and integration, and further optimize the allocation of resources; adhere to the spirit of problem-oriented, goal-oriented, result-oriented, precise and pragmatic, pioneering and innovative, and improve the essential solution for difficulty relief under "one policy for one enterprise", so as to ensure a breakthrough in turning around losses.



Chairman's Statement (Continued)

5. Firmly establishing bottom line thinking and comprehensively enhancing risk control

The Company will coordinate development and security, strengthen risk awareness, implement responsibilities at all levels, and firmly hold the bottom line of avoiding major risks. The Company will make every effort to improve the level of safety management capability, compact the safety responsibilities at all levels, promote the construction of safety production standardization and mine intelligent work surface with high quality, and establish a full-process management and control information system for safety management and contractors. The Company will promote the rectification of feedback problems of the central environmental protection supervision with high quality, and resolutely win the battle of environmental protection upgrading; comprehensively strengthen the ability to govern in accordance with the law and regulations, comprehensively complete the rectification for comprehensive governance, and form a series of institutional achievements.

6. Promoting in-depth integration and better playing the leading role of Party building

The Company will adhere to the leadership of the Party, give full play to the leading role of the Party Committee in "guiding the direction, controlling the overall situation and ensuring the implementation", deepen the benchmarking of the Party building and two-way integration, integrate the Party building work into all links of the industrial chain, value chain and innovation chain, and unite development efforts to ensure the high-quality development of the Company.

Liu Jianping
Chairman

Beijing, the PRC
21 March 2023

Management's Discussion and Analysis of Financial Position and Results of Operations

DEVELOPMENT STRATEGY AND MODEL

Committed to the development objective of building a world class aluminum company with global competitiveness, the Company pursues both internal high-quality growth of substance and extensional development, and takes deepening reform, innovation-driven, green and low-carbon as its key source of momentum, focusing on prioritizing acquisition of bauxite resources, vigorously upgrading the green level of aluminum smelting, accelerating the development of fine alumina and high-purity aluminum-based new materials, and focusing on corporate governance, value creation, scientific and technological research and development, industrial upgrading, overseas development, capital operation and collaborative operation all guided by Party building, dedicating to strengthening the "chain length (鏈長)" of the modern aluminum industry chain.

The following discussions should be read together with the financial information of the Group and its notes included in other sections of this annual report.

BUSINESS SEGMENTS

The Group principally engages in the exploration and mining of bauxite, coal and other resources; the production, sales and technical development of alumina, primary aluminum, aluminum alloy and carbon products; international trading, logistics services, as well as electricity generation from coal and new energy. Business segments comprise:

Alumina segment consists of mining and purchasing bauxite and other raw materials, refining bauxite into alumina, and selling alumina both internally to the Group's electrolytic aluminum enterprises and trading enterprises and externally to customers outside the Group. This segment also includes the production and sales of refined alumina and gallium.

Primary aluminum segment consists of procuring alumina, raw and auxiliary materials and electricity power, smelting alumina to produce primary aluminum, and selling them internally to the Group's trading enterprises and externally to customers outside the Group. This segment also includes the production and sales of carbon products, aluminum alloy products and other electrolytic aluminum products.

Trading segment is mainly engaged in the trading and logistics of alumina, primary aluminum, other nonferrous metal products, and crude fuels such as coal products, as well as raw and auxiliary materials to internal manufacturing enterprises and external customers.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

Energy segment consists of coal, electricity generation from coal, wind power and photovoltaic power and new energy equipment production, etc. Among its major products, coals are sold to internal manufacturing enterprises of the Group and external customers outside the Group; and electricity power generated by public power plants, wind power and photovoltaic power stations of the Group is sold to local grid companies.

Corporate and other operating segments include research and development and other activities of other aluminum-related business of the headquarter and the Group.

OPERATING RESULT

The Group achieved net profit attributable to owners of the Company of RMB4,192 million in 2022, representing a decrease of RMB1,567 million as compared with last year's profit of RMB5,759 million, mainly due to the year-on-year decrease in profit of electrolytic aluminum and alumina products.

OPERATING REVENUE

In 2022, the Group achieved operating revenue of RMB291,000 million, representing a decrease of RMB7,900 million as compared with RMB298,900 million of the same period of last year, which was mainly due to the decrease in revenue of trading business.

OPERATING COST

In 2022, the Group achieved operating cost of RMB259,700 million, representing a decrease of RMB4,500 million as compared with RMB264,200 million of the same period of last year, which was mainly due to the impact of the decrease in related costs and expenses due to the decrease in trade volume.

GROSS PROFIT

In 2022, the Group achieved gross profit of RMB31,284 million, representing a decrease of RMB3,433 million as compared with RMB34,717 million of the same period of last year, which was mainly due to the increase in the prices of raw materials.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

EXPENSE DURING THE REPORTING PERIOD

Selling and distribution expenses: The Group's selling and distribution expenses was RMB419 million in 2022, which was basically flat as compared with RMB383 million of the same period of last year.

Administrative expense: The Group's administrative expenses was RMB6,008 million in 2022, representing a decrease of RMB317 million as compared with RMB6,325 million of the same period of last year, which was mainly due to the impact of the Company's optimization of internal management, enhancement of labor efficiency and strict control of expenditures.

Financial expense: The Group's financial expense was RMB3,418 million in 2022, representing a decrease of RMB804 million as compared with RMB4,222 million of the same period of last year, which was mainly due to the Company's year-on-year decrease in financial expense by reducing the scale of interest-bearing debt and optimizing financing costs.

R&D EXPENSE

The Group's R&D expense in 2022 was RMB4,805 million, representing an increase of RMB2,388 million as compared with RMB2,417 million of the same period last year, which was mainly due to the increase in investment in product process optimization, added value of aluminum processed products and development of medium and high-end products.

OTHER GAINS/LOSSES, NET

The Group's other gains in 2022 were RMB315 million, representing an increase of RMB1,956 million as compared with RMB-1,641 million of the same period last year, which was mainly due to the year-on-year increase in profit of settlement of hedging futures.

INCOME TAX EXPENSE

The Group's income tax expense in 2022 was RMB2,366 million, representing a decrease of RMB504 million as compared with RMB2,870 million of the same period of last year, which was mainly due to the impact of the income tax expense saved through the reasonable tax planning of the Company.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

ALUMINA SEGMENT

Operating Revenue

In 2022, the Group's alumina segment achieved operating revenue of RMB55,762 million, representing an increase of RMB1,719 million as compared with RMB54,043 million of the same period of last year, which was mainly due to the year-on-year increase in sales price of alumina.

Segment Result

In 2022, the Group's alumina segment achieved pre-tax profit of RMB340 million, representing a decrease of RMB2,458 million as compared with RMB2,798 million of the same period of last year, which was mainly due to the impact of the year-on-year decrease in product profit as a result of the increase in raw material prices.

PRIMARY ALUMINUM SEGMENT

Operating Revenue

In 2022, the Group's primary aluminum segment achieved operating revenue of RMB138,466 million, representing an increase of RMB19,952 million as compared with RMB118,514 million of the same period of last year, which was mainly due to the year-on-year increase in sales price of primary aluminum.

Segment Result

In 2022, the Group's primary alumina segment achieved pre-tax profit of RMB10,346 million, representing a decrease of RMB2,438 million as compared with RMB12,784 million of the same period of last year, which was mainly due to the impact of the year-on-year decrease in product profit as a result of the increase in raw material prices.

TRADING SEGMENT

Operating Revenue

In 2022, the Group's trading segment achieved operating revenue of RMB258,854 million, representing an increase of RMB6,149 million as compared with RMB252,705 million of the same period of last year, which was mainly due to the year-on-year increase in price of alumina and primary aluminum.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

Segment Result

In 2022, the Group's trading segment achieved pre-tax profit of RMB2,013 million, representing an increase of RMB677 million as compared with RMB1,336 million of the same period of last year, which was mainly due to the impact of the year-on-year increase in trading profit of imported coking coal.

ENERGY SEGMENT

Operating Revenue

In 2022, the Group's energy segment achieved operating revenue of RMB9,323 million, representing an increase of RMB1,408 million as compared with RMB7,915 million of the same period of last year, which was mainly due to the year-on-year increase in coal's production and sales price.

Segment Result

In 2022, the Group's energy segment achieved pre-tax profit of RMB2,201 million, representing an increase in profit of RMB2,436 million as compared with a loss of RMB235 million of the same period of last year, which was mainly due to the impact of the increase in coal production and gross profit of thermal power.

CORPORATE AND OTHER OPERATING SEGMENTS

Operating Revenue

In 2022, the Group's corporate and other operating segments achieved operating revenue of RMB1,944 million, representing an increase of RMB491 million as compared with RMB1,453 million of the same period of last year.

Segment Result

In 2022, the Group's corporate and other operating segments achieved a loss of pre-tax profit of RMB843 million, representing a decrease in loss of RMB1,138 million from the loss of RMB1,981 million as compared with the same period of last year, which was mainly due to the impact of more provisions for bad debts made on the Company's long-aged receivables in the same period of last year.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

CURRENT ASSETS AND LIABILITIES

As at 31 December 2022, the Group's current assets amounted to RMB54,536 million, representing an increase of RMB426 million as compared with RMB54,110 million at the end of the previous year, which was mainly due to the impact of the appropriate increase in reserves of the Company at the end of the year based on market prices for raw fuel materials and key products.

As at 31 December 2022, the Group's current liabilities amounted to RMB62,367 million, representing an increase of RMB451 million as compared with RMB61,916 million at the end of the previous year, which was mainly due to the impact of reclassification of more of the Company's debts due within one year to current liabilities during the year.

NON-CURRENT ASSETS AND LIABILITIES

As at 31 December 2022, the Group's non-current assets amounted to RMB157,812 million, representing a decrease of RMB12,941 million as compared with RMB170,753 million at the end of the previous year, which was mainly due to amortisation of long-term assets.

As at 31 December 2022, the Group's non-current liabilities amounted to RMB62,225 million, representing a decrease of RMB11,025 million as compared with RMB73,250 million at the end of the previous year, which was mainly due to the impact of reclassification of more of the Company's debts due within one year to current liabilities during the year.

As at 31 December 2022, the Group's gearing ratio amounted to 58.67% (the ratio is derived by dividing the Group's total liabilities by its total assets as at 31 December 2022), representing a decrease of 1.44 percentage points from 60.11% at the end of 2021, which was mainly due to the reduction in the scale of interest-bearing liabilities of the Company.

FAIR VALUE MEASUREMENTS

The Group has established procedures for fair value recognition, measurement and disclosure in strict accordance with the requirements of accounting standards for fair value determination, and assumes responsibility for the truthfulness of fair value measurement and disclosure. Currently, the Company is measured by the historical cost method except for transactional financial assets, transactional financial liabilities, investments in other equity instruments and receivables financing measured at fair value.

As at 31 December 2022, the Group's financial assets held for trading purposes decreased by RMB60 million compared with the end of the previous year, mainly due to the impact of floating profits and losses on outstanding futures contracts.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

PROVISION FOR INVENTORY IMPAIRMENT

As at 31 December 2022, the Group separately assessed the net realizable value of its inventories. For the inventories relevant to aluminum products, the assessment was made on the net realizable value of its inventories on the basis of the estimated selling price of the finished goods available for sale in accordance with the coordination scheme of the production and sales between alumina enterprises and electrolytic aluminum enterprises within the Group, and the factors including the financial budget, turnover period of inventory, the purpose of the Company to hold the inventories and the influence of events subsequent to the balance sheet date. For the inventories held by the energy segment, the Group unanimously calculated with the most recent market price.

As at 31 December 2022, the balance of provision for impairment of inventories held by the Group was RMB1,234 million, representing an increase of RMB484 million as compared with RMB750 million as of the end of 2021.

The Company has always adopted the same approach to determine the net realizable value of its inventories and the provision for inventory impairment on a consistent basis for the relevant accounting policy.

CAPITAL EXPENDITURES, CAPITAL COMMITMENTS AND INVESTMENT UNDERTAKINGS

In 2022, the Group completed project investment expenditure (excluding equity investment) of RMB4,751 million, which mainly consisted of investments in construction of transformation and upgrading projects, energy saving and consumption reduction, environmental governance, resources acquisition and technological research and development.

As at 31 December 2022, the Group's contracted but not provided capital commitment to fixed assets investment amounted to RMB2,183 million.

As at 31 December 2022, the Group's investment undertakings amounted to RMB1,461 million, comprised of RMB1,019 million to China Aluminum Suihe Nonferrous Metals Green Low-carbon Innovation and Development Fund (Beijing) Partnership (Limited Partnership)* (中鋁穗禾有色金屬綠色低碳創新發展基金(北京)合夥企業(有限合夥)), RMB400 million to Chinalco Overseas Development Co., Ltd.* (中鋁海外發展有限公司), RMB8 million to Loudi Zhongyu New Materials Co., Ltd.* (婁底中禹新材料有限公司), RMB28 million to Shanxi Qinlv Taiyue New Materials Co., Ltd.* (山西沁鋁太岳新材料有限公司) and RMB6 million to Chinalco Tendering Company Limited* (中鋁招標有限公司), respectively. The sources of funding for these commitments include funds already held by the Group and internal cash flows generated from operating activities.

Management's Discussion and Analysis of Financial Position and Results of Operations (Continued)

CASH AND CASH EQUIVALENTS

As at 31 December 2022, the Group's cash and cash equivalents amounted to RMB16,817 million.

CASH FLOWS FROM OPERATING ACTIVITIES

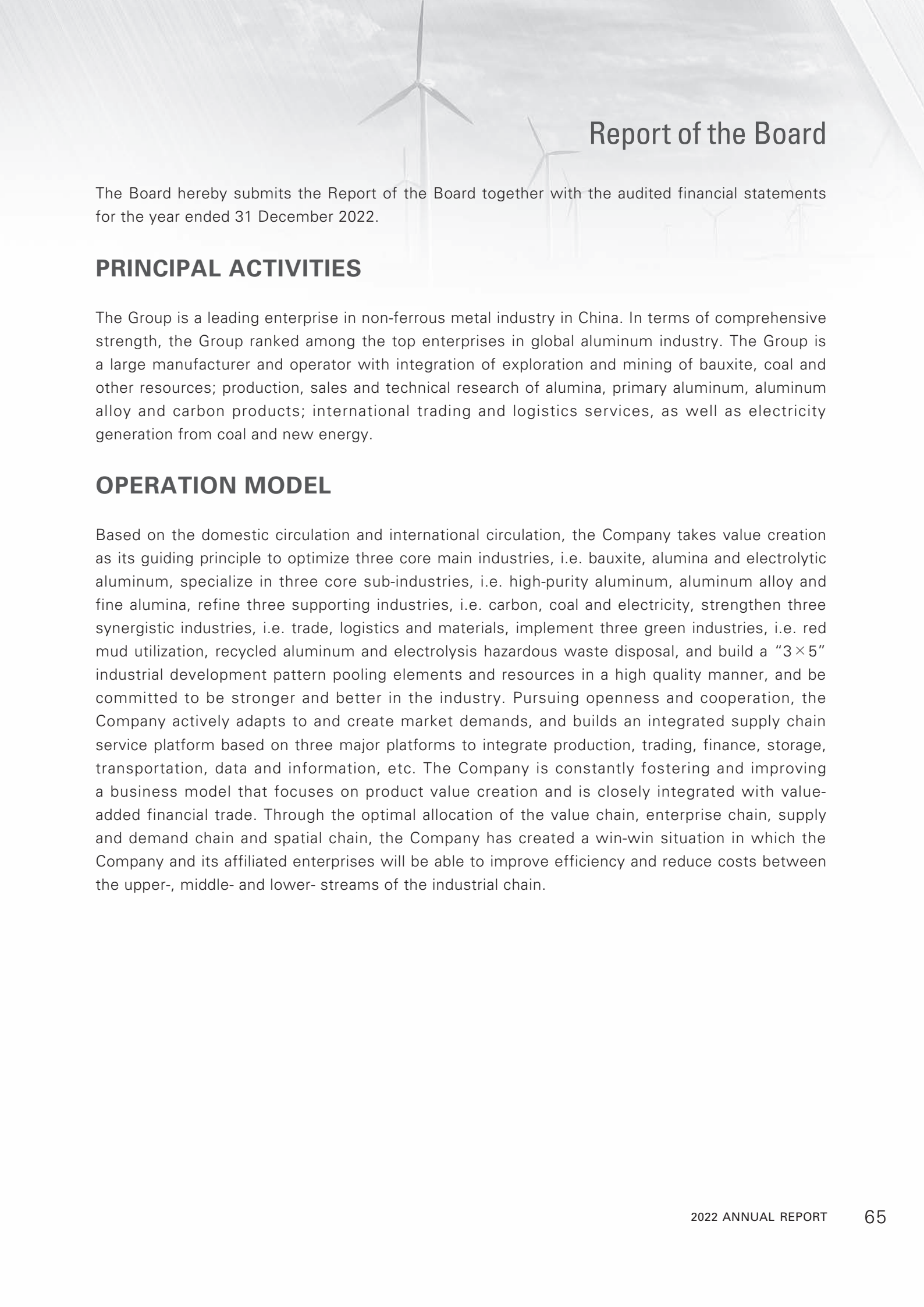
In 2022, cash flow from operating activities was a net inflow of RMB27,745 million, representing a decrease of RMB7,411 million compared with the net inflow of RMB35,156 million for the same period of the previous year, mainly due to the impact of new trade payments and economical reserve increase during the year.

CASH FLOWS FROM INVESTING ACTIVITIES

In 2022, cash flow from investing activities was a net outflow of RMB3,418 million, representing an increase of RMB1,746 million in outflow compared with the net inflow of RMB1,672 million for the previous year, mainly due to the impact of the year-on-year increase in capital expenditures during the year.

CASH FLOWS FROM FINANCING ACTIVITIES

In 2022, cash flow from financing activities was a net outflow of RMB27,038 million, representing an increase of RMB3,625 million in outflow compared with the net outflow of RMB23,413 million for the same period of the previous year, mainly due to the impact of the consideration paid by the Company for the implementation of the business combination under common control of Yunnan Aluminum and Pingguo Aluminum during the year.

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white and have three blades each. They are spaced out across the landscape.

Report of the Board

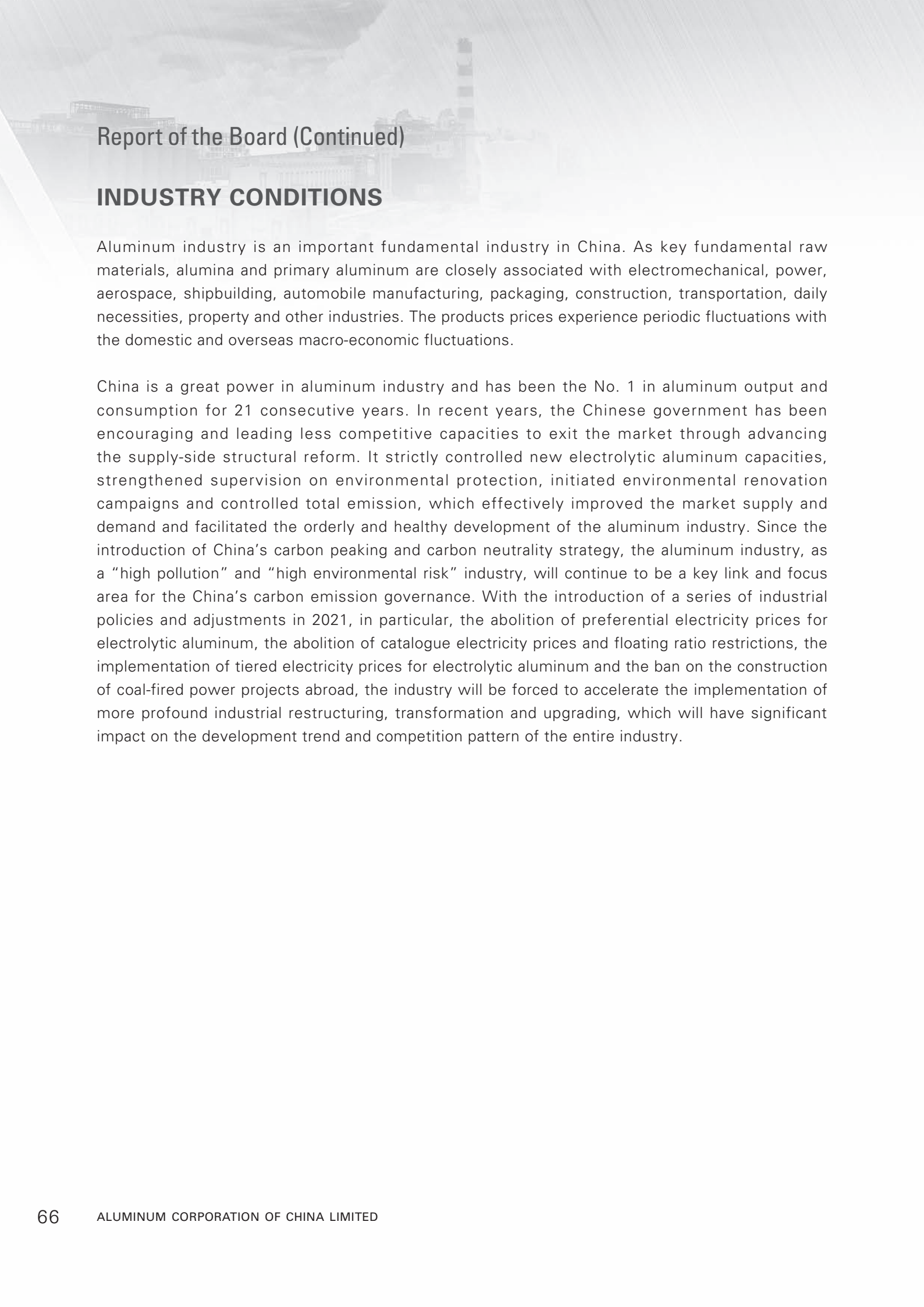
The Board hereby submits the Report of the Board together with the audited financial statements for the year ended 31 December 2022.

PRINCIPAL ACTIVITIES

The Group is a leading enterprise in non-ferrous metal industry in China. In terms of comprehensive strength, the Group ranked among the top enterprises in global aluminum industry. The Group is a large manufacturer and operator with integration of exploration and mining of bauxite, coal and other resources; production, sales and technical research of alumina, primary aluminum, aluminum alloy and carbon products; international trading and logistics services, as well as electricity generation from coal and new energy.

OPERATION MODEL

Based on the domestic circulation and international circulation, the Company takes value creation as its guiding principle to optimize three core main industries, i.e. bauxite, alumina and electrolytic aluminum, specialize in three core sub-industries, i.e. high-purity aluminum, aluminum alloy and fine alumina, refine three supporting industries, i.e. carbon, coal and electricity, strengthen three synergistic industries, i.e. trade, logistics and materials, implement three green industries, i.e. red mud utilization, recycled aluminum and electrolysis hazardous waste disposal, and build a “3×5” industrial development pattern pooling elements and resources in a high quality manner, and be committed to be stronger and better in the industry. Pursuing openness and cooperation, the Company actively adapts to and create market demands, and builds an integrated supply chain service platform based on three major platforms to integrate production, trading, finance, storage, transportation, data and information, etc. The Company is constantly fostering and improving a business model that focuses on product value creation and is closely integrated with value-added financial trade. Through the optimal allocation of the value chain, enterprise chain, supply and demand chain and spatial chain, the Company has created a win-win situation in which the Company and its affiliated enterprises will be able to improve efficiency and reduce costs between the upper-, middle- and lower- streams of the industrial chain.



Report of the Board (Continued)

INDUSTRY CONDITIONS

Aluminum industry is an important fundamental industry in China. As key fundamental raw materials, alumina and primary aluminum are closely associated with electromechanical, power, aerospace, shipbuilding, automobile manufacturing, packaging, construction, transportation, daily necessities, property and other industries. The products prices experience periodic fluctuations with the domestic and overseas macro-economic fluctuations.

China is a great power in aluminum industry and has been the No. 1 in aluminum output and consumption for 21 consecutive years. In recent years, the Chinese government has been encouraging and leading less competitive capacities to exit the market through advancing the supply-side structural reform. It strictly controlled new electrolytic aluminum capacities, strengthened supervision on environmental protection, initiated environmental renovation campaigns and controlled total emission, which effectively improved the market supply and demand and facilitated the orderly and healthy development of the aluminum industry. Since the introduction of China's carbon peaking and carbon neutrality strategy, the aluminum industry, as a "high pollution" and "high environmental risk" industry, will continue to be a key link and focus area for the China's carbon emission governance. With the introduction of a series of industrial policies and adjustments in 2021, in particular, the abolition of preferential electricity prices for electrolytic aluminum, the abolition of catalogue electricity prices and floating ratio restrictions, the implementation of tiered electricity prices for electrolytic aluminum and the ban on the construction of coal-fired power projects abroad, the industry will be forced to accelerate the implementation of more profound industrial restructuring, transformation and upgrading, which will have significant impact on the development trend and competition pattern of the entire industry.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its three blades clearly visible. Other smaller turbines are scattered in the background, creating a sense of a wind farm. The overall tone is professional and modern, emphasizing renewable energy.

Report of the Board (Continued)

In addition to the expansion of product categories and the improvement of product quality in transportation, construction projects and other traditional industries with wide aluminum application, with the development of China's economy shifting from high growth rate to high quality, the application of aluminum has also been expanded in such high-end consumer fields as packaging, transportation, electricity and mechanical equipment. Replacement of steel with aluminum for main structural products in automobile, high-speed rails, airplanes, bridges and other industries has been gradually prompted due to the lightness, durability and metal stability of aluminum; the application of aluminum products has been expanded step by step in furniture, packages and other consumables sectors by means of the recyclability of aluminum; and the application of aluminum in wires and cables for electricity transmission and distribution and in 3C industry has also been continuously facilitated based on the conductivity and economic value of aluminum. In addition, the development of the aviation industry has led to the growth of medium thick aluminum plates and aluminum automotive body sheets, and the rapid development of renewable energy has driven the growth of aluminum materials used for photovoltaic modules, lightweight new energy vehicles, freight vehicles and charging pile equipment. The emerging industries, personalized demand, and the industrialization of aluminum products such as aluminum-air batteries and nanoceramic aluminum will also become new consumption drivers for aluminum.



Report of the Board (Continued)

INDUSTRY LANDSCAPE AND TRENDS

China is the biggest producer and consumer of alumina and electrolytic aluminum in the world. In 2022, the domestic output of alumina and electrolytic aluminum were 79.76 million tonnes and 40.43 million tonnes, accounting for 58.21% and 58.36% of the global output of alumina and electrolytic aluminum, respectively. The domestic consumption of alumina and electrolytic aluminum were 80.91 million tonnes and 41.10 million tonnes, respectively, representing 59.11% and 58.67% of the global consumption of alumina and electrolytic aluminum, respectively. The domestic output and consumption of alumina and electrolytic aluminum were over half of the global output and consumption.

Currently, the world is in the acceleration period of profound changes of a kind unseen in a century. The international environment is becoming increasingly complex. Given that anti-globalization is spreading, the global industrial, supply and value chains have experienced significant changes. The intensification of internal conflicts among countries has led to an increase in the number of trade and investment barriers, which is likely to aggravate, constraining the recovery and sustainable development of the global economy. There has been a marked increase in instability and uncertainty in the global economy. At the same time, the transformation of the industrial structure and energy mix has brought new development opportunities for the transformation of industrial chain and supply chain to green and low-carbon for various countries including China. The traditional demand for aluminum in construction is continuously decreasing, while the demand for aluminum in transportation, electronics, durable consumer goods, photovoltaic and other fields is continuously increasing. With the continued strict control over new capacity of electrolytic aluminum by the PRC government, the supply and demand is basically in equilibrium. As the PRC government is deepening the supply-side structural reform and implementing the targets of carbon dioxide peaking and carbon neutrality, the aluminum industry has entered a new stage of high-quality development. It will be the key direction for the transformation and upgrading of the industry to leverage innovations to optimize the industrial layout and the energy consumption mix, reduce energy consumption, and develop deep-processing products with high added values. It has become a new development trend in the industry to rely on technology to reduce carbon, develop and utilize green waste-free metallurgical technology, vigorously develop recycled aluminum, accelerate the transfer to overseas and clean energy-rich regions, and extend to high-end downstream industries. In terms of the competition landscape in the aluminum industry, the enterprises with complete industrial chain covering bauxite, energy, alumina, primary aluminum and aluminum alloy products production, technology research and development, logistics industry, and clean energy are more competitive.

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white with three blades each. The sky is overcast with grey clouds. The overall tone is somewhat muted and industrial.

Report of the Board (Continued)

For the alumina industry, which is subject to certain national policies, such as strict control over additional capacity of electrolytic aluminum, and dual-controls over energy intensity and total energy consumption, and carbon peaking and carbon neutrality, the growth in output of electrolytic aluminum is restricted, and the domestic alumina sustained the state of oversupply. In 2022, due to the influence of the Winter Olympics and the production restriction in autumn, the production capacity of alumina in Shanxi, Henan and Guangxi was reduced by 5.60 million tonnes. In March, due to the coal mine safety accident in Guizhou, most mines were closed for rectification, resulting in the reduction of alumina production capacity. In the second half of the year, although many new projects were put into operation, the alumina enterprises in Henan, Shanxi, Guangxi and Chongqing decreased production due to the tight power supply, price pressure and insufficient ore supply. However, the commissioning of new production capacity still made the alumina supply increase. The new alumina production capacities mainly came from Guangxi, Hebei, Chongqing and other regions. Bauxite is the raw material for alumina production, so the enterprises with high-quality and low-cost bauxite resources will have competitive advantages in alumina cost in the future. As of the end of December 2022, China's alumina capacity reached 99.55 million tonnes per year, representing an increase of 9.20 million tonnes per year as compared with the end of 2021.

For the electrolytic aluminum industry, since 2017, China has been advancing the supply-side structural reform on the electrolytic aluminum industry to eliminate and rectify illegal and illicit electrolytic aluminum capacity. Therefore, capacity substitutions for electrolytic aluminum projects can only be implemented at equal or reduced levels. It is expected to see limited new production capacity in the following years. In 2022, the scale of electrolytic aluminium production reduction continued to expand due to the impact of power shortages and production accidents. At the same time, with the strong support of local governments, electrolytic aluminium enterprises resumed work and production in full swing, with most of the reduced and suspended production as well as new investment projects going into production. Newly completed production capacity is mainly concentrated in Yunnan, Guangxi, Gansu, Sichuan and Inner Mongolia and other regions. The intermittent power shortage in the southwest is expected to continue until other power sources are effectively replenished. By the end of 2022, China's total electrolytic aluminium production capacity was 44.30 million tonnes, up 1.1% from the previous year. Judging from the distribution of production capacity, Shandong and Xinjiang are still the two most important provinces (regions) for electrolytic aluminum production in China.



Report of the Board (Continued)

In terms of consumption, aluminum is the second largest metal after steel. With the development of new energy, electronic information, 5G communication, new energy vehicles, rail transit and green aluminum home industries in the future, the application of “green” and “lightweight” aluminum products will be further expanded and the total consumption will remain stable because aluminum is light, corrosion resistant, easy to process and recyclable. Under the capacity ceiling, the carbon peaking and carbon neutrality targets have further constrained production, and with the addition of recycled aluminum, there is a possibility of a decline in electrolytic aluminum production as it approaches its peak. A basic equilibrium has been maintained in supply and demand, and it is still possible that there will be certain periods in which the supply is unable to meet the demand.

Judging from the development trend of aluminum industry, in the general context of stabilizing industry and economy, the policy of dual-controls over energy intensity and total energy consumption will be more comprehensive and reasonable, and its impact on production is expected to be weakened. The power supply problem can also be greatly improved by ensuring provision of coal and keeping prices stable. Electrolytic aluminum production will gradually be resumed, and the probability of large-scale production reduction again in the whole industry is relatively small, except for those in Northwest China. However, under the current downward pressure on the economy, it is difficult for aluminum demand to increase significantly. At the same time, the aluminum demand is facing the situation of switching between new and old demand drivers. On one hand, due to the downward trend of real estate, the demand for aluminum in construction has been declining, while on the other hand, the demand for aluminum in lightweight energy conservation and emission reduction of automobiles, transportation, electricity and electronics, solar photovoltaic and other industries has shown a rapid growth. Amid peaking carbon dioxide emissions and the acceleration of automotive lightweighting, in the near future, there will still be significant increase in aluminum profiles for domestic rail transit as well as high-strength aluminum alloy materials which can enable traditional automobiles to achieve energy saving and consumption reduction. In particular, the solar photovoltaic power generation will usher in more rapid development worldwide in the next few years. As the world’s most important producer and supplier of modules and supporting products for solar photovoltaic power generation, China’s export scale will continue to expand in the future, and with the adjustment of the energy consumption structure, the annual installed capacity of photovoltaic power generation in China will also continue to expand.

BUSINESS REVIEW

Statements about the business review and future business development of the Group for the year are set out in the section headed “Chairman’s Statement”. The section headed “Management’s Discussion and Analysis of Financial Position and Results of Operations” gives an analysis of the financial and operational conditions of the Group using financial key indicators. Details of compliance with relevant laws and regulations that have a significant impact on the Group are set out in sections headed “Report of the Board” and “Report on Corporate Governance and Internal Control”.

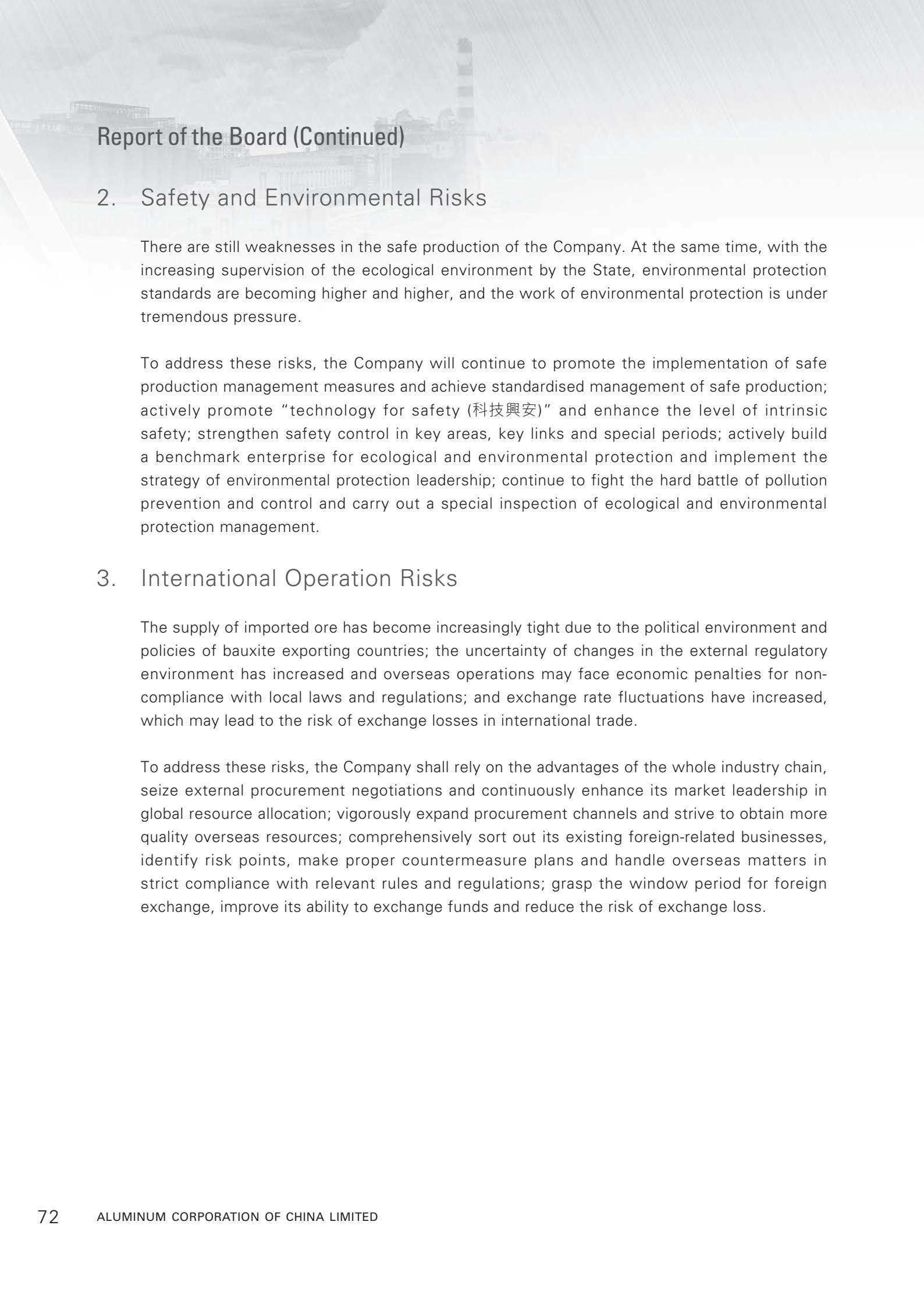
POTENTIAL RISKS

Based on the international and domestic macroeconomic environment, national industry policies and market environment, in conjunction with the actual production and operation conditions of the Company, the Company has evaluated the possible risks that it may face. The main risks include:

1. Market Change Risks

Due to factors such as the macroeconomic situation at home and abroad, national and industry policies, capacity expansion of competitors and changes in market supply and demand fundamentals, there is a risk that prices of alumina, electrolytic aluminium and other products as well as raw fuels may fluctuate significantly and there is a risk that the Company’s profit level may be affected by rising costs and falling selling prices.

To address these risks, the Company will pay close attention to the macroeconomic trends at home and abroad and strengthen research functions; actively carry out trade in tandem to open up incremental markets; release operational vitality and create efficiency and increase revenue; speed up the integration of regional procurement business and enhance the ability to co-ordinate and collect procurement resources; pay close attention to the changes in social inventory, the movements of competitors and downstream customers, and formulate and optimize marketing strategies.



Report of the Board (Continued)

2. Safety and Environmental Risks

There are still weaknesses in the safe production of the Company. At the same time, with the increasing supervision of the ecological environment by the State, environmental protection standards are becoming higher and higher, and the work of environmental protection is under tremendous pressure.

To address these risks, the Company will continue to promote the implementation of safe production management measures and achieve standardised management of safe production; actively promote “technology for safety (科技興安)” and enhance the level of intrinsic safety; strengthen safety control in key areas, key links and special periods; actively build a benchmark enterprise for ecological and environmental protection and implement the strategy of environmental protection leadership; continue to fight the hard battle of pollution prevention and control and carry out a special inspection of ecological and environmental protection management.

3. International Operation Risks

The supply of imported ore has become increasingly tight due to the political environment and policies of bauxite exporting countries; the uncertainty of changes in the external regulatory environment has increased and overseas operations may face economic penalties for non-compliance with local laws and regulations; and exchange rate fluctuations have increased, which may lead to the risk of exchange losses in international trade.

To address these risks, the Company shall rely on the advantages of the whole industry chain, seize external procurement negotiations and continuously enhance its market leadership in global resource allocation; vigorously expand procurement channels and strive to obtain more quality overseas resources; comprehensively sort out its existing foreign-related businesses, identify risk points, make proper countermeasure plans and handle overseas matters in strict compliance with relevant rules and regulations; grasp the window period for foreign exchange, improve its ability to exchange funds and reduce the risk of exchange loss.

4. Dual Carbon and Energy Use Structure Risks

The energy structure of some of the Company's enterprises is dominated by fossil fuels such as coal and natural gas, resulting in relatively large carbon emissions, making it difficult to transform into a cleaner energy source and limiting the scope for reducing carbon emissions.

To address these risks, the Company will actively promote the adjustment of energy consumption structure and fulfill the green and low-carbon development path in conjunction with the actual development; increase the amount of recycling of waste aluminium and continuously optimise the layout of recycled aluminium; strengthen the management of energy conservation and emission reduction to reduce the electricity consumption of electrolytic aluminium and energy consumption of alumina; and actively research and develop low-carbon and zero-carbon technologies.

SOCIAL RESPONSIBILITY AND ENVIRONMENT PROTECTION

The Company's social responsibility governance aims to achieve a high level of sustainable development, and firmly believes that a sound sustainability strategy can effectively contribute to the realization of long-term strategic goals, and seize opportunities and respond to risks brought by sustainable development. To this end, the Company actively integrates social responsibility into the day-to-day management system and assumes responsibility to various stakeholders including employees, customers, society, and the environment.

The Company adopts "Turning Stone into Gold and Benefiting Mankind (點石成金 造福人類)" as the core value of social responsibility, takes rewarding shareholders, empowering employees, benefiting customers and society, and cherishing environment as the Company's mission, and effectively integrates social responsibility into the Company's business management system, which achieves full coverage of the Company's main business unit. The Company has established, and formed systematic concept system, organizational system, institutional system, assessment system and management system. Five areas of responsibility are identified, which are corporate governance, employee rights and interests, environmental protection, fair operation and community support. At the same time, with respect of each of the five major areas of responsibility, the Company has established the scope of responsibility, the subject of responsibility, the indicators of responsibility assigned to each department and the enterprises to which they belong, as well as a negative list.

Report of the Board (Continued)



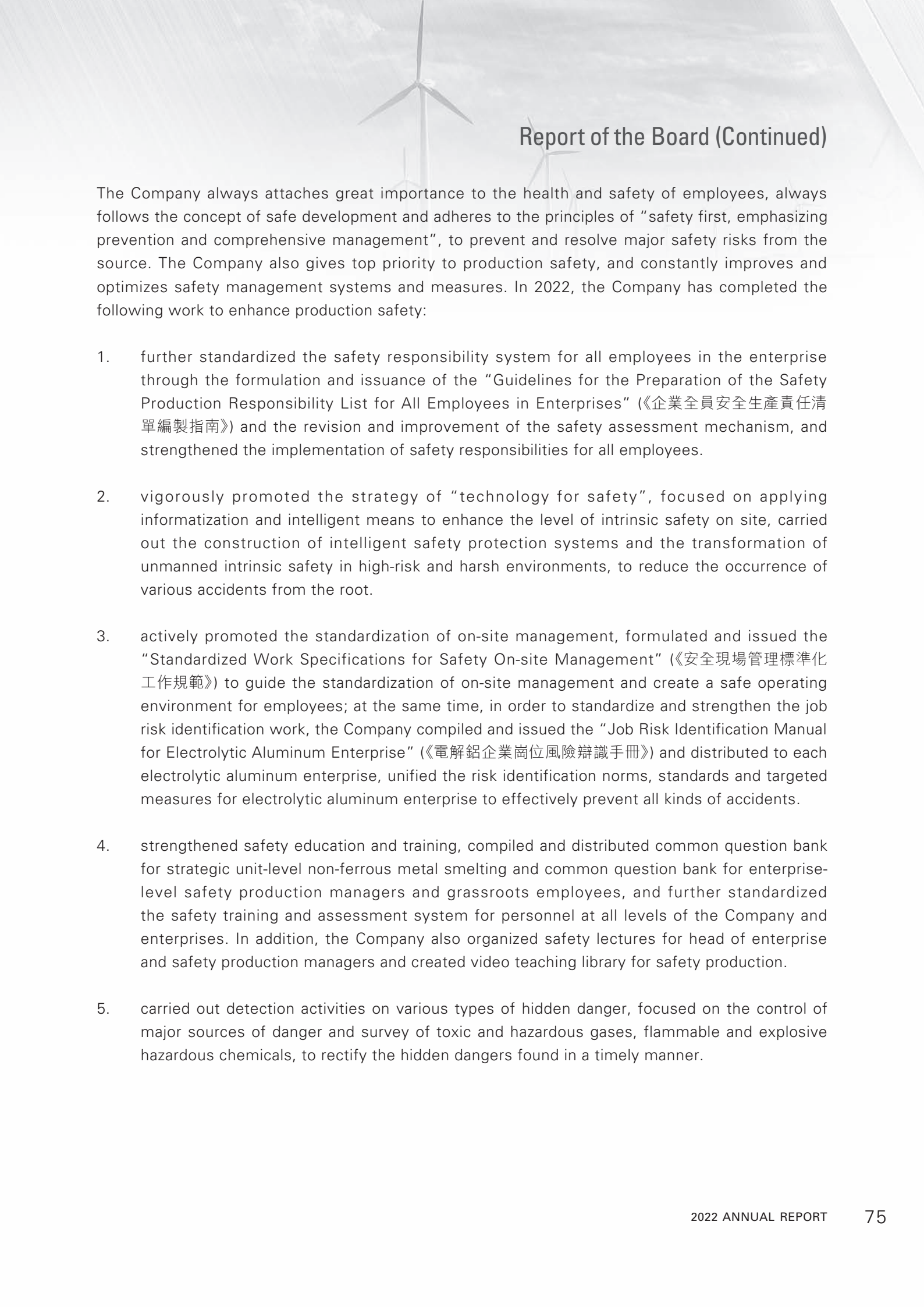
The Company has established a complete social responsibility management system consisting of sustainable development and ESG management in accordance with the *Implementation Rules for Social Responsibility Management of Aluminum Corporation of China Limited* as followed:

The Board of Directors and its special committees: reviewing the Group's ESG governance strategy guidelines, ESG management systems, and management objectives; identifying and applying the Group's issues of materiality, identifying and managing ESG-related risks and opportunities, and the annual ESG report supervising and inspecting the identification, evaluation, management process of ESG management-related matters and the progress of related ESG goals.

Social Responsibility Committee: implementing the ESG work arrangements of the Board of Directors, formulating annual ESG work plans, and organizing and instructing relevant departments to implement ESG policies, measures and plans; discussing with departments involved to make applicable ESG targets and reviewing them regularly, and confirming the work progress; reporting the relevant work to the Board of Directors regularly.

Functional departments: implementing the work arrangements of the Social Responsibility Committee, and conducting regular review and reporting to confirm progress.

Subordinate enterprises: establishing a social responsibility committee or leadership group responsible for the management of ESG work; formulating annual ESG work plans based on actual conditions; implementing the work arrangements of the Company, collecting, and conducting regular review and reporting to confirm progress.



Report of the Board (Continued)

The Company always attaches great importance to the health and safety of employees, always follows the concept of safe development and adheres to the principles of “safety first, emphasizing prevention and comprehensive management”, to prevent and resolve major safety risks from the source. The Company also gives top priority to production safety, and constantly improves and optimizes safety management systems and measures. In 2022, the Company has completed the following work to enhance production safety:

1. further standardized the safety responsibility system for all employees in the enterprise through the formulation and issuance of the “Guidelines for the Preparation of the Safety Production Responsibility List for All Employees in Enterprises” (《企業全員安全生產責任清單編製指南》) and the revision and improvement of the safety assessment mechanism, and strengthened the implementation of safety responsibilities for all employees.
2. vigorously promoted the strategy of “technology for safety”, focused on applying informatization and intelligent means to enhance the level of intrinsic safety on site, carried out the construction of intelligent safety protection systems and the transformation of unmanned intrinsic safety in high-risk and harsh environments, to reduce the occurrence of various accidents from the root.
3. actively promoted the standardization of on-site management, formulated and issued the “Standardized Work Specifications for Safety On-site Management” (《安全現場管理標準化工作規範》) to guide the standardization of on-site management and create a safe operating environment for employees; at the same time, in order to standardize and strengthen the job risk identification work, the Company compiled and issued the “Job Risk Identification Manual for Electrolytic Aluminum Enterprise” (《電解鋁企業崗位風險辯識手冊》) and distributed to each electrolytic aluminum enterprise, unified the risk identification norms, standards and targeted measures for electrolytic aluminum enterprise to effectively prevent all kinds of accidents.
4. strengthened safety education and training, compiled and distributed common question bank for strategic unit-level non-ferrous metal smelting and common question bank for enterprise-level safety production managers and grassroots employees, and further standardized the safety training and assessment system for personnel at all levels of the Company and enterprises. In addition, the Company also organized safety lectures for head of enterprise and safety production managers and created video teaching library for safety production.
5. carried out detection activities on various types of hidden danger, focused on the control of major sources of danger and survey of toxic and hazardous gases, flammable and explosive hazardous chemicals, to rectify the hidden dangers found in a timely manner.



Report of the Board (Continued)

The Company believes that “talent is the primary resource” and puts people first. Through a standardized employment system, smooth communication channels, and sound development mechanism, the Company safeguards employees’ rights and interests, strengthens humanistic care for employees, and works together with employees to create a workplace that encourages mutual development of employees and the enterprise.

The Company strictly complies with the Labour Law of the People’s Republic of China, the Labour Contract Law of the People’s Republic of China, the Law of the People’s Republic of China on the Protection of Minors, the Labor Dispute Mediation and Arbitration Law of the People’s Republic of China, the Law of the People’s Republic of China on the Protection of Women’s Rights and Interests, the Law of the People’s Republic of China on the Protection of Disabled Persons and other relevant laws and regulations. The Company sticks to the principle of equal employment, follows the employment policies of equal pay for equal work, gender equality, and ethnic equality, ensures that all employees enjoy legitimate rights and interests and fair and just treatment per laws and regulations, and guarantees that the values, religious beliefs and privacy of employees of different nationalities, races, genders, and cultural backgrounds are respected. In 2022, the Company’s labor union organizations at all levels took the opportunity of implementing the “Outlines of Women’s Development in China (2021–2030)” to expand the coverage of legal education and further increase the popularization rate of laws and regulations on the protection of female employees’ rights and interests.

The Company has established a comprehensive welfare security system, paying full social insurance and provident fund for employees, and providing annuities and pensions for all employees. The Company also provides various non-salary benefits for employees, such as health check-ups, heating subsidies, job subsidies, preferential subsidies for children’s schooling, and birthday gift coupons, and provides welfare guarantees such as labor protection supplies and high-temperature heat relief products for front-line employees. With the leave system for employees, the Company guarantees employees’ rights to legal leave such as paid leave and maternity leave per the law, and implements a flexible leave policy. In addition, the Company also establishes supplementary medical insurance and group accident insurance for employees, as well as enterprise annuity plan for 85 qualified enterprises.

The Company attaches great importance to the physical and mental health of employees. The Company headquarters and various enterprises widely carry out various cultural and fitness activities, as well as hold lectures on mental health and health first aid to build a platform for safeguarding the physical and mental health of employees. In September 2022, the labor union at the headquarters of the Company organized a group building activity under the theme of “Energetic Chalco, Healthy Life”, which further enriched the after-work cultural life of employees and enhanced the communication and collaboration among departments and among employees.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its three blades clearly visible. Other smaller turbines are scattered in the background, creating a sense of a wind farm landscape. The overall tone is professional and modern.

Report of the Board (Continued)

The Company implements the strategy of invigorating the enterprise through human resource development, attaches importance to employee training and talent pipeline construction, provides employees with a broad development platform and space, and establishes a clear and transparent career development path for all types of talents, to enable employees to develop together with the Company. The Company continues to explore the construction of leadership development models, carries out talent evaluation and personality analysis, continuously strengthens the training of young managers, promotes outstanding young managers born in the 70s and 80s to enter the leadership team, effectively optimizes the age structure and professional structure of the leadership team; strengthens the echelon construction, focuses on the selection and training of outstanding young managers, completes the first overall and all-round recommendation and selection of outstanding managers of the Company, forming a “reservoir” for talents in various professional fields; strengthens the cultivation of scientific and technological and high-skilled talents, and builds a team of highly sophisticated personnel to provide talent guarantee for the Company’s sustainable high-quality development. In terms of employee training, the Company actively builds an online and offline training system by Chalco E-Enterprise, an online learning platform, to help employees learn knowledge and skills, safety and environmental protection, law and regulations and other topics, thus realizing the combination of management and platform, as well as online and offline integration. In 2022, the Chalco E-Enterprise undertook a total of 28 training programs of various kinds, with a total of 56,000 trainees. In addition, the Company also organized diversified labor competitions and innovation activities. The labor union of the Company started from “national competition, industry competition and enterprise competition” to improve the organization of skill competitions and the training system for skilled talents, giving full play to the role of the labor union as a “big school”, guiding employees to practice in working and vice versa, and promoting learning and training through competitions. In 2022, 655 skill competitions were held in various enterprises, and more than 30,000 employees participated in skill training and job training.

In terms of social welfare, the Company continued to carry out projects such as assistance to Qinghai and Tibet, rural revitalization and public welfare donations to demonstrate its corporate citizenship. In 2022, the Company and its subsidiaries donated a total of RMB29,911,300 in funds and materials to external parties, including RMB19,900,000 in pairing assistance to Qinghai and Tibet, RMB4,000,000 in donations to the earthquake-stricken areas in Luding County, Sichuan, sponsorship of RMB2,600,000 to the Nonferrous Metals Retired Cadre Bureau of the State-owned Assets Supervision and Administration Commission, and donations from the Company-owned entities to local cultural and sports undertakings, medical and health services, public welfare and paired-up assistance areas. In 2022, 20 Company-owned entities undertook the task of rural revitalization and assistance. The rural revitalization and assistance work involved 11 provinces, 13 counties (county-level cities), 16 townships (towns) and 24 villages (cottages), with a total of 19 first secretaries dispatched, and a total investment of RMB6,078,800 in donations and rural revitalization projects to paired-up assistance areas. The Company continued to organize volunteer activities, vigorously promoted the volunteer service spirit of “dedication, friendship, mutual assistance and progress” among the youth, and organized young members of the league to

Report of the Board (Continued)

participate in the volunteer service activity of “truly helping people in need”. Therefore, a number of excellent volunteer service teams, represented by “Chalco Sunshine” (一鋁陽光) service team and “Liupan Starlight” (六盤星光) service team, have emerged. In 2022, various donations and contributions made by the youth amounted to RMB419,000, and three young volunteers were honored at provincial level or above. As of the end of 2022, the Company had 253 young volunteer organizations with 9,914 registered young volunteers and over 120,000 hours of volunteer service.

With regard to environmental protection, the Company operates in the non-ferrous metal industry with high pollution and its business involves mining, production of alumina and electrolytic aluminum, power generation, etc. As of the end of the reporting period, the following subsidiaries of the Company are listed as key pollutant discharge units according to the list released by the environmental protection authorities:

Name of Key Pollutant Discharge Units	Category in the List of Pollutant Discharge Units
Shanxi Huasheng Aluminum Co., Ltd.	Air
Chalco Shanxi New Material Co., Ltd.	Air and Soil
Shanxi Huaxing Aluminum Co., Ltd.	Air and Soil
Shanxi Chinalco Resources Co., Ltd.	Air and Soil
Chinalco Shanxi Jiaokou Xinghua Technology Co., Ltd.	Air and Soil
Baotou Aluminum Co., Ltd.	Air and Soil
Inner Mongolia Huayun New Materials Co., Ltd.	Air and Soil
Fushun Aluminum Co., Ltd.	Air and Soil
Chalco Shandong Co., Ltd.	Air and Soil
Thermal Power Plant of Chalco Shandong Co., Ltd.	Air
Chalco Shandong Co., Ltd. (Functional Materials Factory)	Air
Chalco Shandong New Materials Co., Ltd.	Air and Soil
Shandong Yixing Carbon New Materials Co., Ltd.	Air
Chalco Qingdao Light Metal Co., Ltd.	Air
Chalco Mining Co., Ltd.	Air and Soil
Chalco Mining Co., Ltd., Luoyang Branch	Soil
Chalco Zhongzhou Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Guangxi Branch	Air and Soil
Guangxi Hualei New Materials Co., Ltd.	Air and Soil
Guizhou Huaren New Materials Co., Ltd.	Air and Soil
Guizhou Huajin Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Guizhou Branch (Alloying Division)	Air
Zunyi Aluminum Co., Ltd.	Air

Report of the Board (Continued)

Name of Key Pollutant Discharge Units	Category in the List of Pollutant Discharge Units
Lanzhou Aluminum Co., Ltd.	Air and Soil
Aluminum Corporation of China Limited, Liancheng Branch	Air and Soil
Gansu Hualu Aluminum Co., Ltd., Jingyuan Branch	Air
Aluminum Corporation of China Limited, Qinghai Branch	Air and Soil
Ningxia Yinxing Power Generation Co., Ltd.	Air
Maliantai Power Plant of Chalco Ningxia Energy Group Co., Ltd.	Air
Liupanshan Thermal Power Plant of Chalco Ningxia Energy Group Co., Ltd.	Air and Water
Yunnan Aluminum Co., Ltd.	Air and Soil
Yunnan Yuanxin Charcoal Co., Ltd., Yangzonghai Branch	Air
Yunnan Yunlv Haixin Aluminum Co., Ltd.	Air
Yunnan Yunlv Yuxin Aluminum Co., Ltd.	Air
Yunnan Yunlv Zexin Aluminum Co., Ltd.	Air
Yunnan Yunlv Runxin Aluminum Co., Ltd.	Air and Soil
Yunnan Yunlv Yongxin Aluminum Co., Ltd.	Air and Soil
Yunnan Yuanxin Charcoal Co., Ltd.	Air and Soil
Yunnan Wenshan Aluminum Co., Ltd.	Air
Heqing Yixin Aluminum Co., Ltd.	Air

In 2022, the Company made solid efforts to promote annual ecological and environmental protection work, formulated the main points and implementation schedule of the Company's annual environmental protection work, decomposed the ecological and environmental protection index plan to each enterprise, and paid close attention to the implementation and completion. In 2022, the Company achieved all annual targets for key pollutant emissions. The environmental performance data of the Company from 2020 to 2022 are presented in the table below:

Performance indicators	Unit	2020	2021	2022
Basis information				
Operating income	RMB10,000	18,599,057.70	26,974,823.18	29,098,794.20
Alumina production	10,000-ton	1,453	1,623	1,764
Electrolytic aluminum production	10,000-ton	369	386	688
Emissions				
Air Emissions				
The amount of SO ₂ emission	10,000-ton	3.60	3.46	5.56
The amount of NO _x emission	10,000-ton	1.05	0.96	1.18
The amount of PM emission	10,000-ton	0.42	0.32	0.44

Report of the Board (Continued)

Performance indicators	Unit	2020	2021	2022
GHG Emissions				
Scope 1				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	2,412.86	2,245.60	2,351.78
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	2,120.03	2,240.68	3,337.00
The amount of total CO ₂ emission (in CO ₂ equivalent)	10,000-ton	6,101.23	5,720.66	6,920.00
Scope 2				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	197.96	277.37	209.22
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	2,570.20	2,650.37	4,527.00
The amount of total CO ₂ emission (in CO ₂ equivalent)	10,000-ton	2,802.77	2,959.45	4,844.00
Total greenhouse gas emissions				
Alumina Sector				
CO ₂ emission equivalent	10,000-ton	2,610.79	2,522.97	2,561.00
CO₂ Emission Equivalent				
Production per ton of alumina sector	ton/ton	1.80	1.55	1.45
Electrolytic Aluminum Sector				
CO ₂ emission equivalent	10,000-ton	4,690.23	4,891.05	7,864.00
CO₂ Emission Equivalent				
Production per ton of electrolytic aluminum sector	ton/ton	12.71	12.67	11.43
The amount of total CO ₂ emission (in CO ₂ equivalent)	10,000-ton	8,904.00	8,680.11	11,764.00
Total CO ₂ emission equivalent per RMB10,000 of operating income	ton/RMB10,000	4.79	3.22	4.04

Report of the Board (Continued)

Performance indicators	Unit	2020	2021	2022
Wastewater Discharge				
Industrial wastewater	10,000-ton	0	0	0
Mine discharge	10,000-ton	76.23	31.14	562.80
The amount of ammonia nitrogen discharged	ton	5.6	1.54	1.22
General Industrial Solid Wastes				
The amount of general industrial solid wastes generated	10,000-ton	3,780.33	4,147.66	4,698.20
General industrial solid wastes production per RMB10,000 of operating revenue	ton/RMB10,000	2.03	1.54	1.61
The amount of red mud generated	10,000-ton	2,172.46	2,426.50	2,856.68
The amount of red mud utilised	10,000-ton	280.58	328.32	577.47
The amount of fly ash generated	10,000-ton	436.23	425.15	511.83
The amount of fly ash utilised	10,000-ton	324.61	349.96	399.98
The amount of slag generated	10,000-ton	130.94	135.74	175.78
The amount of slag utilised	10,000-ton	105.27	118.27	154.29
Hazardous Wastes				
Total amount of hazardous wastes	ton	112,540	149,505	392,700
Amount of hazardous waste per RMB10,000 of operating income	ton/RMB10,000	0.0061	0.0055	0.01354
Amount of production of waste oil (motor oil and mineral oil)	ton	733	721	1,700

Report of the Board (Continued)

Performance indicators	Unit	2020	2021	2022
The amount disposed of waste oil (motor oil and mineral oil)	ton	819	629	2,800
The amount of aluminium ash generated	ton	22,402	33,047	74,200
The amount of aluminium ash disposed	ton	29,181	27,035	69,300
The amount of overhaul slag generated	ton	39,958	46,157	212,300
The amount of overhaul slag disposed	ton	37,884	99,855	236,400
The amount of carbon residue generated	ton	49,447	59,408	98,700
The amount of carbon residue disposed	ton	47,493	68,354	104,700
Use of Resources				
Comprehensive energy consumption	10,000-ton of standard coal	2,058.04	2,540.74	2,823.00
Comprehensive Energy Consumption per RMB10,000 of operating income	ton of standard coal/ RMB10,000	1.11	0.94	0.97
The amount of purchased electricity	100 million kWh	400.39	409.23	807.64
Total coal consumption	10,000-ton	1,551.96	1,543.15	2,945.00
Total water consumption	100 million-ton	34.14	32.37	42.96
In which: circulating water consumption	100 million-ton	33.29	31.36	42.02
Total freshwater consumption	100 million-ton	0.84	1.02	0.94
Water consumption per RMB10,000 of operating income	ton/RMB10,000	183.55	120.00	147.63
Freshwater consumption per RMB10,000 of operating income	ton/RMB10,000	4.52	3.78	3.23
The amount of packaging material used	10,000-ton	1.33	1.49	2.76
Amount of Packaging Material used per RMB10,000 of operating income	10,000-ton/ RMB10,000	0.00071	0.00055	0.00095

Explanations:

1. In 2022, the Company completed the acquisition of certain enterprises (e.g. Yunnan Aluminum). The statistical aperture in the above table covers the Group and includes newly acquired enterprises during the year.
2. The amount of total CO2 emissions include emissions from the alumina sector, electrolytic aluminum sector and other business sectors.

The background of the page features a grayscale image of several wind turbines in a field under a cloudy sky. The turbines are positioned at different heights and angles, creating a sense of depth. The overall tone is professional and clean.

Report of the Board (Continued)

In 2022, the Company completed the rectification of the problems identified by the central ecological environment protection inspections in a high quality manner, comprehensively investigated the ecological and environmental problems of its subsidiaries, effectively implemented the rectification work, carried out two rounds of problem identification and guidance from eight aspects of ecological and environmental protection system, pollution prevention work, online monitoring facilities construction, operation, maintenance and networking, emergency management of environmental emergencies, rain and sewage diversion and initial rainwater treatment and treatment, groundwater monitoring around electrolytic aluminum hazardous waste landfill, groundwater monitoring of tailing ponds, and environmental pollution and disorganized emission of seepage, helped certain enterprises solve many prominent ecological and environmental problems and improved the overall ecological and environmental management.

In strict accordance with relevant national laws and regulations and local policies, the Company has continuously improved its pollutant discharge management system and continued to fight for pollution prevention and control, to ensure the stable discharge of pollutants to meet standards. In terms of wastewater treatment, the Company has established an industrial wastewater recycling system, with 100% of industrial wastewater treated and reused in production operations. In 2022, the Company carried out special investigation and treatment of wastewater from enterprises along the Yellow River and Yangtze River, promoted the orderly implementation of enterprise water pollution prevention and control, and fully implemented its responsibility of ecological and environmental protection. In terms of air pollution prevention and control, the Company has effectively reduced exhaust emissions through technical transformation. In 2022, the Company completed the electrolysis second series flue gas purification (4#, 5#, 6#) desulfurization ultra-low emission transformation project and the clinker firing kiln nitrogen oxides ultra-low emission transformation project of Shanxi New Material, which effectively reduced the emission intensity of sulfur dioxide and nitrogen oxides per ton of products. In addition, the Company also organized each electrolytic aluminum enterprise to carry out special investigation and treatment of disorganized emission problems in the whole production process, and greatly improved the on-site environment of electrolytic aluminum enterprises through the investigation and rectification of problems. In terms of solid waste treatment, the management of hazardous waste generation, collection, storage, transportation, utilization and treatment has become increasingly scientific, the management and maintenance of related facilities, equipment and sites and measures to prevent environmental pollution such as scattering, running-off and leakage have become increasingly standardized. In 2022, Baotou Aluminum actively promoted zero inventory of hazardous waste, timely treated overhaul slag, carbon slag and aluminum ash, and completed the assessment and treatment of contaminated soil; Qinghai Branch promoted the treatment of the slag reservoir in Dalanggou; defects in a number of hazardous waste storage sites, such as Gansu Hualu electrolyzer overhaul slag storage site, have been effectively rectified. In addition, the Company commenced the construction of “waste-free factories” (無廢工廠), and Guangxi Huasheng, Baotou Aluminum and Guizhou Huaren successfully established “waste-free factories”, which provided the Company with a compliant and effective management model for solid waste management. In terms of mine management, the Company adhered to the concept of “responsible mining”, spared no effort to promote the construction of green mines, and actively explored a green mining development

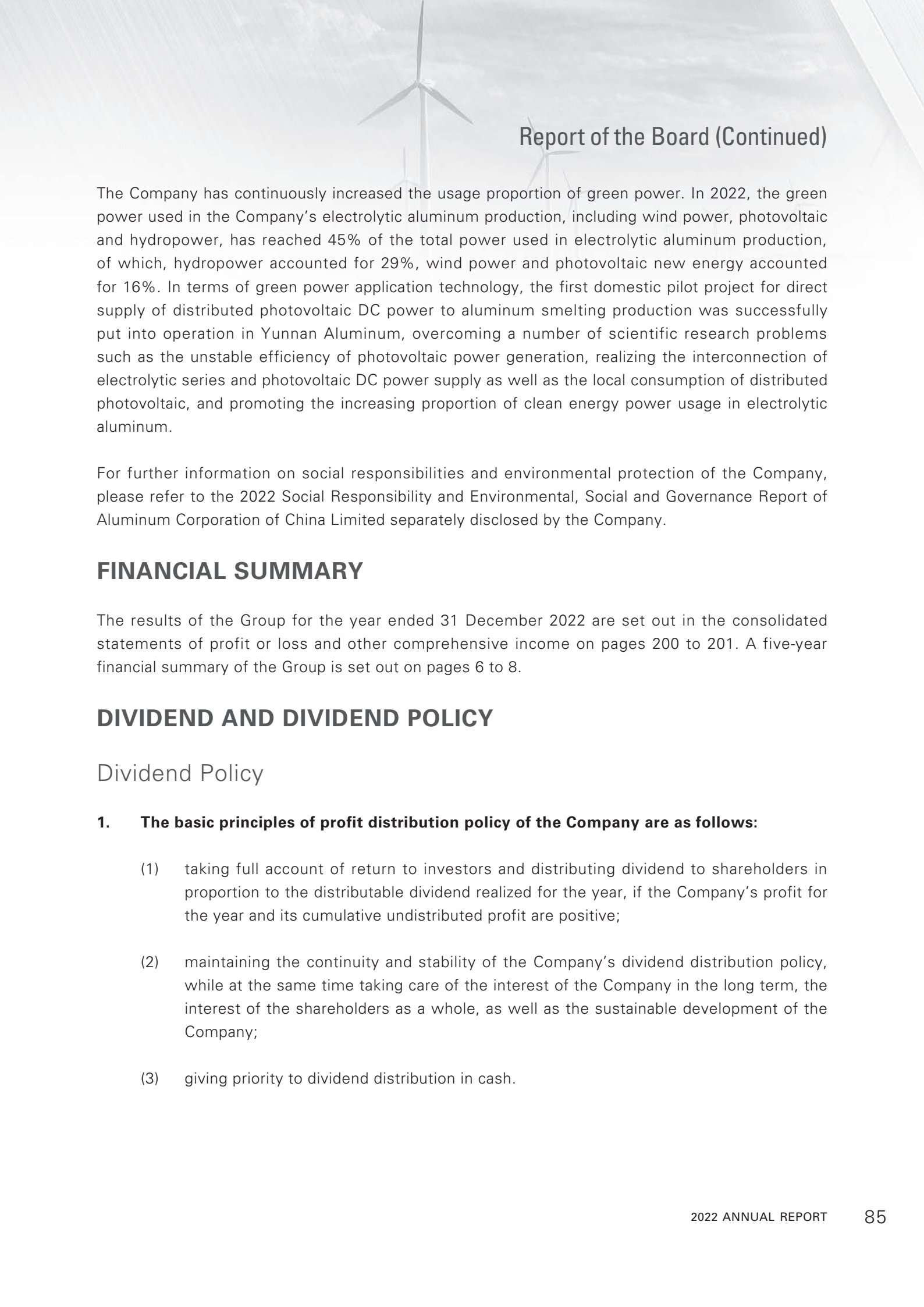


Report of the Board (Continued)

path that takes into account the compatibility of mining and ecological environment. The Company included mine reclamation in its annual key work to promote the relevant enterprises to refine the decomposition of the annual reclamation target, with the daily mining as synchronous promotion, the relevant functional departments in the Company's head office followed up and guided the implementation to achieve the annual reclamation target. In 2022, the subsidiaries of the Company reclaimed a total of 7,132 mu of land, with a reclamation rate of 100%.

As a leading company in the aluminum industry in China, the Company has actively implemented the national carbon peaking and carbon neutrality strategy and has set up a leading group for carbon peaking and carbon neutrality, and each functional department in the Company's head office has assumed their respective responsibilities for carbon peaking and carbon neutrality in accordance with the division of work and departmental responsibilities. Focusing on the concept of green and low-carbon development, the Company formulated the development plan during the 14th Five-Year Plan period as well as new energy development special plans, made various strategic plans such as the action plan for carbon peaking and carbon neutrality, which focuses on three areas, namely, electrolytic aluminum, alumina and power generation, to reduce the AC power consumption of electrolytic aluminum, total energy consumption of alumina and coal consumption of power plants' power supply through strengthening management, technological transformation and operation optimization, striving to achieve the carbon peaking in 2025 and reducing carbon by 40% in 2035. In 2022, the Company reduced its carbon dioxide emissions by 1.60 million tons.

The Company achieved energy saving and carbon reduction through various means such as research and development and promotion of new technologies for energy saving and carbon reduction, and upgrading and renovation of production facilities. In terms of electrolytic aluminum production, the Company carried out new technology test tanks with 28 fully graphitized cathodes + phosphorus pig iron, the main advantage of which is with lower pressure drop at the bottom of furnace and greater potential for energy saving. The Company is currently promoting the use of this new technology tank. In terms of alumina production, Chalco Shandong, Chalco Mining, Guangxi Branch, Zhongzhou Aluminum and other enterprises implemented the transformation of waste heat utilization of roasting furnace flue gas. By setting up heat exchangers to make full use of the waste heat of roasting flue gas to heat the low-temperature medium, it does not only recover the heat carried by the flue gas, but also the water vapor in the flue gas as well as alumina dust, thus reducing the consumption of steam by approximately 0.1 tons and fresh water by approximately 0.19 tons per ton of alumina. In terms of mining production, Guangxi Branch reduced fuel consumption by 1,200L/d by renewing four old oil-fired hydraulic stone crushers to electric stone crusher in Jiaomei Mine. In terms of power production, the Company implemented the transformation of the "three reforms linkage" project, renovated the steam turbines in Ningxia Energy Liupanshan Power Plant with high back pressure heat supply, which increased the heat supply capacity of the unit by approximately 1.7 million m³ and reduced the coal consumption of power supply by approximately 13g/kWh; carried out steam turbine flow transformation on the 2# unit in Baotou Aluminum Power Plant to increase the flow area of steam turbine and improve the operating efficiency of the unit, thus reducing the coal consumption of power supply by approximately 15g/kWh.

A large, faint image of a wind turbine serves as the background for the top half of the page.

Report of the Board (Continued)

The Company has continuously increased the usage proportion of green power. In 2022, the green power used in the Company's electrolytic aluminum production, including wind power, photovoltaic and hydropower, has reached 45% of the total power used in electrolytic aluminum production, of which, hydropower accounted for 29%, wind power and photovoltaic new energy accounted for 16%. In terms of green power application technology, the first domestic pilot project for direct supply of distributed photovoltaic DC power to aluminum smelting production was successfully put into operation in Yunnan Aluminum, overcoming a number of scientific research problems such as the unstable efficiency of photovoltaic power generation, realizing the interconnection of electrolytic series and photovoltaic DC power supply as well as the local consumption of distributed photovoltaic, and promoting the increasing proportion of clean energy power usage in electrolytic aluminum.

For further information on social responsibilities and environmental protection of the Company, please refer to the 2022 Social Responsibility and Environmental, Social and Governance Report of Aluminum Corporation of China Limited separately disclosed by the Company.

FINANCIAL SUMMARY

The results of the Group for the year ended 31 December 2022 are set out in the consolidated statements of profit or loss and other comprehensive income on pages 200 to 201. A five-year financial summary of the Group is set out on pages 6 to 8.

DIVIDEND AND DIVIDEND POLICY

Dividend Policy

1. The basic principles of profit distribution policy of the Company are as follows:

- (1) taking full account of return to investors and distributing dividend to shareholders in proportion to the distributable dividend realized for the year, if the Company's profit for the year and its cumulative undistributed profit are positive;
- (2) maintaining the continuity and stability of the Company's dividend distribution policy, while at the same time taking care of the interest of the Company in the long term, the interest of the shareholders as a whole, as well as the sustainable development of the Company;
- (3) giving priority to dividend distribution in cash.

Report of the Board (Continued)

2. Dividend distribution policies of the Company are as follows:

- (1) dividend shall be distributed in the following manner: the Company may distribute dividends in cash, in shares or in a combination of both cash and shares. The Company shall give priority to dividend distribution in cash. Subject to conditions, interim profit distribution may be made by the Company;
- (2) specific conditions and proportions of cash dividend of the Company: save in exceptional circumstances, if the Company's profit for the year and its cumulative undistributed profit are positive, the Company may distribute dividend in cash and the profit to be distributed in cash per annum will not be less than 10% of the distributable profit realized for that year, or that the total profit to be distributed in cash in the past three years will not be less than 30% of the average annual distributable profit realized in the past three years.

DIVIDENDS

During the reporting period, the Company completed the final dividend payment for the year 2021 on 19 August 2022, with a total cash dividend of RMB544,891,195.38, including a cash dividend of RMB0.0318 per A share (tax included) and a cash dividend of HK\$0.0372 per H share (tax included). The total amount of the dividend payment accounted for approximately 10.73% of the net profit attributable to shareholders of the listed company in the consolidated financial statements for the year 2021.

In 2022, the Company achieved profits and accumulated positive undistributed profits. As considered and approved by the Company at the 10th meeting of the 8th session of the Board held on 21 March 2023, the final dividend distribution plan of the Company for 2022 is as follows:

The Board of the Company proposed to distribute cash dividend at RMB0.036 per share (tax inclusive) to the shareholders of the Company. Based on the Company's current total issued share capital of 17,161,591,551 shares, the total dividend of the Company for 2022 amounted to approximately RMB617.82 million (tax inclusive), accounting for approximately 14.74% of the Company's net profit attributable to shareholders of the listed company for 2022.

The above dividend distribution plan is subject to the consideration and approval at the general meeting of the Company. If approved, the Company will issue a separate announcement on the implementation of the dividend distribution and determine the record date for the dividend distribution. If there is any change in the total share capital of the Company before the record date for the implementation of the profit distribution, the Company will maintain the total amount of dividend distribution unchanged and adjust the distribution amount per share accordingly, and will announce the details of the adjustment separately.

Report of the Board (Continued)

The Company expects to complete the distribution on or before 18 August 2023.

Total dividends paid during 2022 and 2021 are as follows:

	2022	2021
Total dividends paid: <i>(RMB million)</i>	617.82	544.89
Percentage to profits attributable to holders of the interests of the Company: <i>(%)</i>	14.74	10.73

SHARE CAPITAL

The total share capital of the Company was 17,161,591,551 shares as of 31 December 2022.

CORPORATE BONDS

As of 31 December 2022, the corporate bonds issued by the Company which were existing (including those matured) during the reporting period are as follows. All the proceeds raised from such bonds are used to replace the Company's debts or provide additional liquidity.

Name	Abbreviation	Code	Issue date	Maturity date	Ending balance <i>(RMB'100 million)</i>	Rate <i>(%)</i>	Exchange
2018 Corporate Bonds (Tranche 1) (Type 2)	18 Chalco 02	143805	14 September 2018	18 September 2023	9	4.99	SSE
2018 Corporate Bonds (Tranche 2) (Type 2)	18 Chalco 04	155033	14 November 2018	16 November 2023	16	4.50	SSE
2019 Corporate Bonds (Tranche 1)	19 Chalco 01	155166	22 January 2019	23 January 2022	0	3.80	SSE
2019 Corporate Bonds (Tranche 2) (Type 2)	19 Chalco G3	155594	8 August 2019	9 August 2029	20	4.55	SSE
2019 Corporate Bonds (Tranche 3) (Type 1)	19 Chalco G4	155677	4 September 2019	5 September 2022	0	3.50	SSE
2020 Corporate Bonds (Tranche 1)	20 Chalco 01	163219	4 March 2020	5 March 2025	5	3.30	SSE
2020 Corporate Bonds (Tranche 2)	20 Chalco 02	163312	19 March 2020	20 March 2023	10	3.05	SSE

Note: In the above table, the ending balance is RMB0 because some of the corporate bonds have matured and been redeemed during the reporting period.

Report of the Board (Continued)

In addition to the above-mentioned corporate bonds publicly issued on the SSE, the Company also issued a number of debt financing instruments (including medium-term notes, ultra-short-term financing bills, etc.) in the national inter-bank bond market. As of 31 December 2022, the debt financing instruments issued and existing (including those matured) by the Company during the reporting period are as follows:

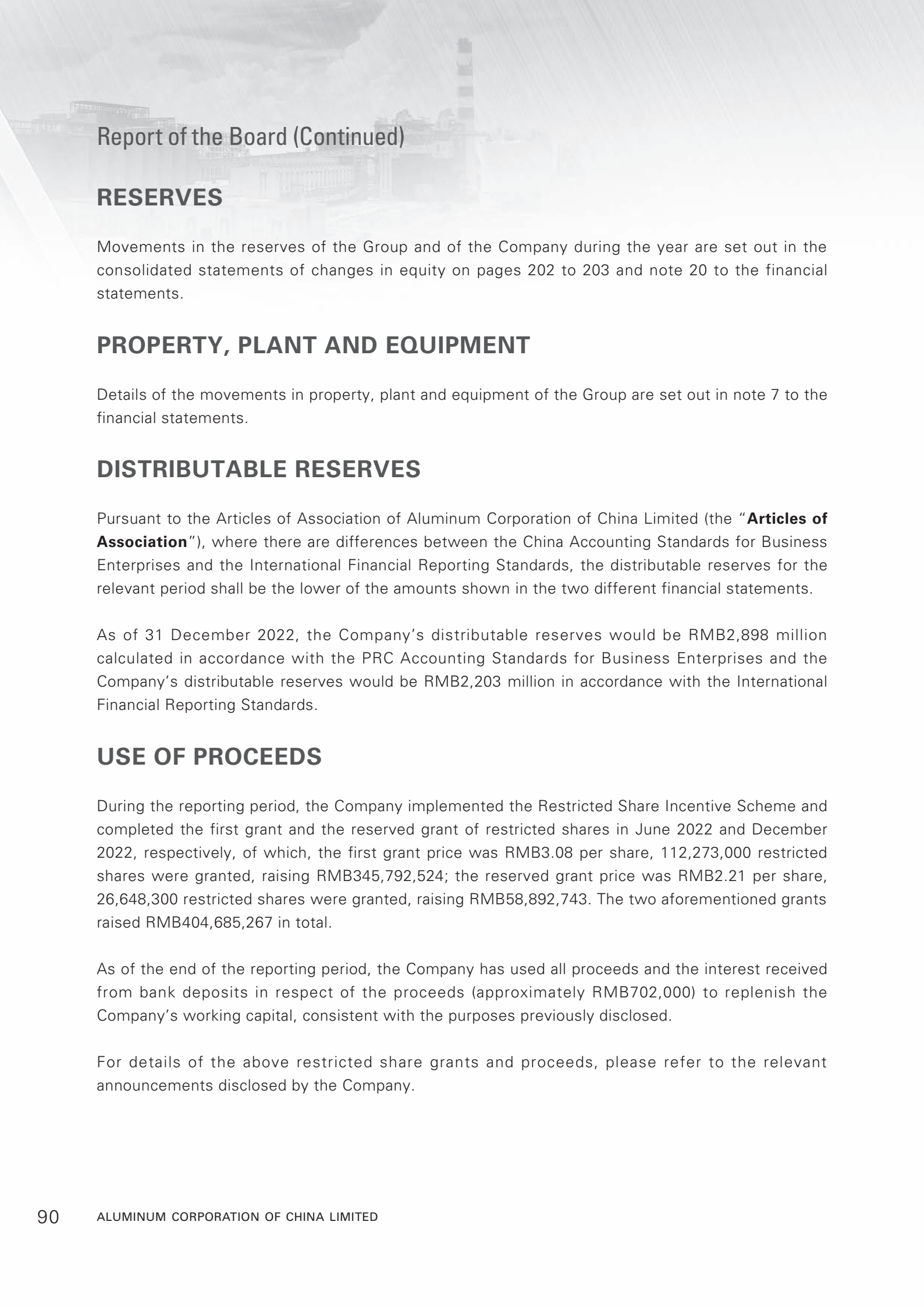
Name	Abbreviation	Code	Issue date	Maturity date	Ending balance (RMB'100 million)	Rate (%)	Exchange
2019 first tranche of medium-term notes	19 Chalco MTN001	101900733	22 May 2019	24 May 2024	20	4.08	Inter-bank bond market
2019 second tranche of medium-term notes	19 Chalco MTN002	101901591	19 November 2019	20 November 2022	0	4.20	Inter-bank bond market
2020 first tranche of medium-term notes	20 Chalco MTN001	102000388	25 March 2020	26 March 2023	9	2.93	Inter-bank bond market
2020 second tranche of medium-term notes	20 Chalco MTN002	102002237	2 December 2020	4 December 2022	0	4.45	Inter-bank bond market
2021 first tranche of medium-term notes	21 Chalco MTN001	102103308	17 December 2021	21 December 2024	10	3.10	Inter-bank bond market
2022 first tranche of medium-term notes	22 Chalco MTN001	102280232	26 January 2022	27 January 2025	20	3.00	Inter-bank bond market
2022 first tranche of green medium-term notes (carbon-neutral bond)	22 Chalco GN001	132280014	22 February 2022	23 February 2025	4	2.68	Inter-bank bond market
2022 second tranche of medium-term notes (transformation)	22 Chalco MTN002 (transformation)	102281363	21 June 2022	22 June 2024	5	2.45	Inter-bank bond market
2022 third tranche of medium-term notes	22 Chalco MTN003	102281847	17 August 2022	3+N	10	2.87	Inter-bank bond market
2022 fourth tranche of medium-term notes	22 Chalco MTN004	102282118	21 September 2022	2+N	10	2.68	Inter-bank bond market

Report of the Board (Continued)

Name	Abbreviation	Code	Issue date	Maturity date	Ending balance (RMB'100 million)	Rate (%)	Exchange
2021 first tranche of green ultra-short-term bonds (carbon-neutral bonds)	21 Chalco GN001	132100058	31 May 2021	25 February 2022	0	2.60	Inter-bank bond market
2021 seventh tranche of ultra-short-term bonds	21 Chalco SCP007	012102606	16 July 2021	15 January 2022	0	2.49	Inter-bank bond market
2021 eighth tranche of ultra-short-term bonds	21 Chalco SCP008	012103495	22 September 2021	20 June 2022	0	2.45	Inter-bank bond market
2021 ninth tranche of ultra-short-term bonds	21 Chalco SCP009	012105002	15 November 2021	12 August 2022	0	2.70	Inter-bank bond market
2022 first tranche of ultra-short-term bonds	22 Chalco SCP001	012280328	19 January 2022	17 October 2022	0	2.49	Inter-bank bond market
2022 second tranche of ultra-short-term bonds	22 Chalco SCP002	012280628	21 February 2022	18 November 2022	0	2.20	Inter-bank bond market
2022 second tranche of green ultra-short-term bonds (carbon-neutral bonds)	22 Chalco GN002	132280045	28 April 2022	20 January 2023	6	2.00	Inter-bank bond market
2022 third tranche of ultra-short-term bonds	22 Chalco SCP003	012282320	29 June 2022	14 March 2023	10	1.86	Inter-bank bond market
2022 fourth tranche of ultra-short-term bonds	22 Chalco SCP004	012282871	16 August 2022	13 February 2023	10	1.58	Inter-bank bond market

Note: In the above table, the ending balance is RMB0 because some of the debt financing instruments have matured and been redeemed during the reporting period.

The funds raised from the issuance of the above debt financing instruments were used to replace the Company's debts and replenish working capital, repay project loans and construct investing projects.



Report of the Board (Continued)

RESERVES

Movements in the reserves of the Group and of the Company during the year are set out in the consolidated statements of changes in equity on pages 202 to 203 and note 20 to the financial statements.

PROPERTY, PLANT AND EQUIPMENT

Details of the movements in property, plant and equipment of the Group are set out in note 7 to the financial statements.

DISTRIBUTABLE RESERVES

Pursuant to the Articles of Association of Aluminum Corporation of China Limited (the “**Articles of Association**”), where there are differences between the China Accounting Standards for Business Enterprises and the International Financial Reporting Standards, the distributable reserves for the relevant period shall be the lower of the amounts shown in the two different financial statements.

As of 31 December 2022, the Company’s distributable reserves would be RMB2,898 million calculated in accordance with the PRC Accounting Standards for Business Enterprises and the Company’s distributable reserves would be RMB2,203 million in accordance with the International Financial Reporting Standards.

USE OF PROCEEDS

During the reporting period, the Company implemented the Restricted Share Incentive Scheme and completed the first grant and the reserved grant of restricted shares in June 2022 and December 2022, respectively, of which, the first grant price was RMB3.08 per share, 112,273,000 restricted shares were granted, raising RMB345,792,524; the reserved grant price was RMB2.21 per share, 26,648,300 restricted shares were granted, raising RMB58,892,743. The two aforementioned grants raised RMB404,685,267 in total.

As of the end of the reporting period, the Company has used all proceeds and the interest received from bank deposits in respect of the proceeds (approximately RMB702,000) to replenish the Company’s working capital, consistent with the purposes previously disclosed.

For details of the above restricted share grants and proceeds, please refer to the relevant announcements disclosed by the Company.

USE OF FUND OTHER THAN PROCEEDS

During the reporting period, the Company had no material project investment other than proceeds.

PRE-EMPTIVE RIGHTS

Pursuant to the Articles of Association of the Company and the PRC laws, there are no pre-emptive rights that require the Company to offer new shares to its existing shareholders on a pro-rata basis.

DONATIONS

The Group had contributed approximately RMB29,911,300 (including the assistance to Qinghai, the assistance to Tibet, the assistance to targeted poor areas and other donations) in 2022 (2021: approximately RMB40,257,500).

LITIGATION AND CONTINGENT LIABILITIES

(a) Litigation

There was no significant litigation pending during the year which was required to be disclosed.

(b) Contingent Liabilities

There were no significant contingent liabilities during the year which was required to be disclosed.

Report of the Board (Continued)

DIRECTORS, SUPERVISORS AND SENIOR MANAGEMENT

As of the date of this report, the Board, Supervisory Committee and senior management of the Company comprise:

Directors

Executive Directors

Liu Jianping (<i>Chairman</i>)	Re-appointed on 21 June 2022
Zhu Runzhou	Re-appointed on 21 June 2022
Ou Xiaowu	Re-appointed on 21 June 2022
Jiang Tao	Re-appointed on 21 June 2022

Non-executive Directors

Zhang Jilong	Re-appointed on 21 June 2022
Chen Pengjun	Appointed on 21 June 2022

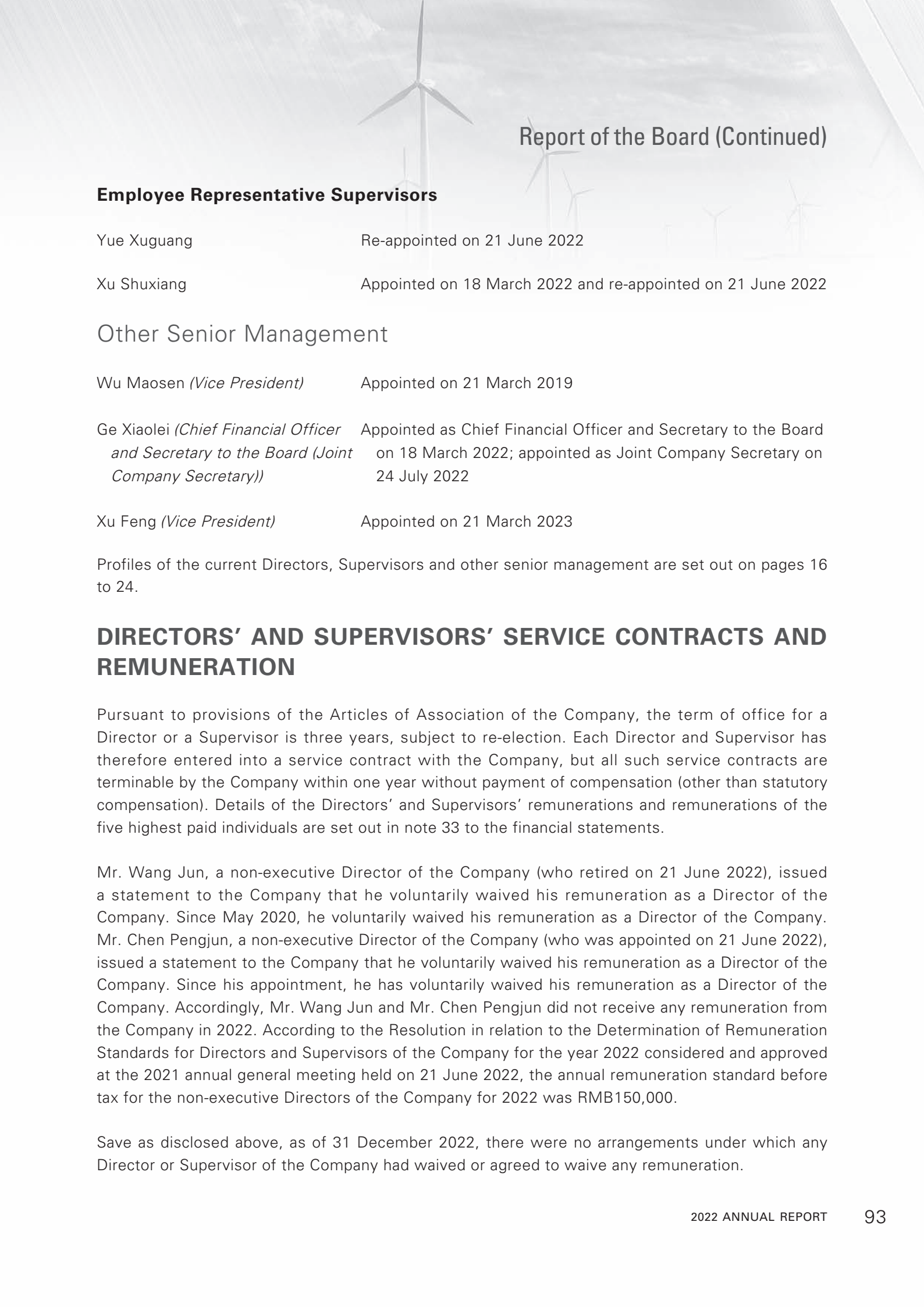
Independent Non-executive Directors

Qiu Guanzhou	Re-appointed on 21 June 2022
Yu Jinsong	Re-appointed on 21 June 2022
Chan Yuen Sau Kelly	Re-appointed on 21 June 2022

Supervisors

Shareholder Representative Supervisors

Ye Guohua (<i>Chairman of the Supervisory Committee</i>)	Re-appointed on 21 June 2022
Shan Shulan	Re-appointed on 21 June 2022
Lin Ni	Re-appointed on 21 June 2022



Report of the Board (Continued)

Employee Representative Supervisors

Yue Xuguang Re-appointed on 21 June 2022

Xu Shuxiang Appointed on 18 March 2022 and re-appointed on 21 June 2022

Other Senior Management

Wu Maosen (*Vice President*) Appointed on 21 March 2019

Ge Xiaolei (*Chief Financial Officer and Secretary to the Board (Joint Company Secretary)*) Appointed as Chief Financial Officer and Secretary to the Board on 18 March 2022; appointed as Joint Company Secretary on 24 July 2022

Xu Feng (*Vice President*) Appointed on 21 March 2023

Profiles of the current Directors, Supervisors and other senior management are set out on pages 16 to 24.

DIRECTORS' AND SUPERVISORS' SERVICE CONTRACTS AND REMUNERATION

Pursuant to provisions of the Articles of Association of the Company, the term of office for a Director or a Supervisor is three years, subject to re-election. Each Director and Supervisor has therefore entered into a service contract with the Company, but all such service contracts are terminable by the Company within one year without payment of compensation (other than statutory compensation). Details of the Directors' and Supervisors' remunerations and remunerations of the five highest paid individuals are set out in note 33 to the financial statements.

Mr. Wang Jun, a non-executive Director of the Company (who retired on 21 June 2022), issued a statement to the Company that he voluntarily waived his remuneration as a Director of the Company. Since May 2020, he voluntarily waived his remuneration as a Director of the Company. Mr. Chen Pengjun, a non-executive Director of the Company (who was appointed on 21 June 2022), issued a statement to the Company that he voluntarily waived his remuneration as a Director of the Company. Since his appointment, he has voluntarily waived his remuneration as a Director of the Company. Accordingly, Mr. Wang Jun and Mr. Chen Pengjun did not receive any remuneration from the Company in 2022. According to the Resolution in relation to the Determination of Remuneration Standards for Directors and Supervisors of the Company for the year 2022 considered and approved at the 2021 annual general meeting held on 21 June 2022, the annual remuneration standard before tax for the non-executive Directors of the Company for 2022 was RMB150,000.

Save as disclosed above, as of 31 December 2022, there were no arrangements under which any Director or Supervisor of the Company had waived or agreed to waive any remuneration.

Report of the Board (Continued)

PERMITTED INDEMNITY PROVISIONS

As of 31 December 2022, all Directors, Supervisors and other senior management of the Company were covered under the liability insurance purchased by the Company for them.

INTERESTS OF DIRECTORS, CHIEF EXECUTIVE AND SUPERVISORS IN SHARES OF THE COMPANY AND ITS ASSOCIATED CORPORATIONS

As of 31 December 2022, the interests held by the Directors, president (chief executive) and Supervisors of the Company were as follows:

1. Mr. Zhu Runzhou, an executive Director and president of the Company, directly held 270,000 A shares of the Company.
2. Mr. Ou Xiaowu, an executive Director of the Company, directly held 250,000 A shares of the Company.
3. Mr. Jiang Tao, an executive Director and vice president of the Company, directly held 230,000 A shares of the Company; Ms. Shi Biqiong, the spouse of Mr. Jiang Tao, directly held 4,000 A shares of the Company. Pursuant to the Securities and Futures Ordinance of Hong Kong, Mr. Jiang Tao is deemed to be interested in the 4,000 A shares of the Company held by Ms. Shi Biqiong.
4. Ms. Xu Shuxiang, a Supervisor of the Company, directly held 4,000 A shares of the Company.

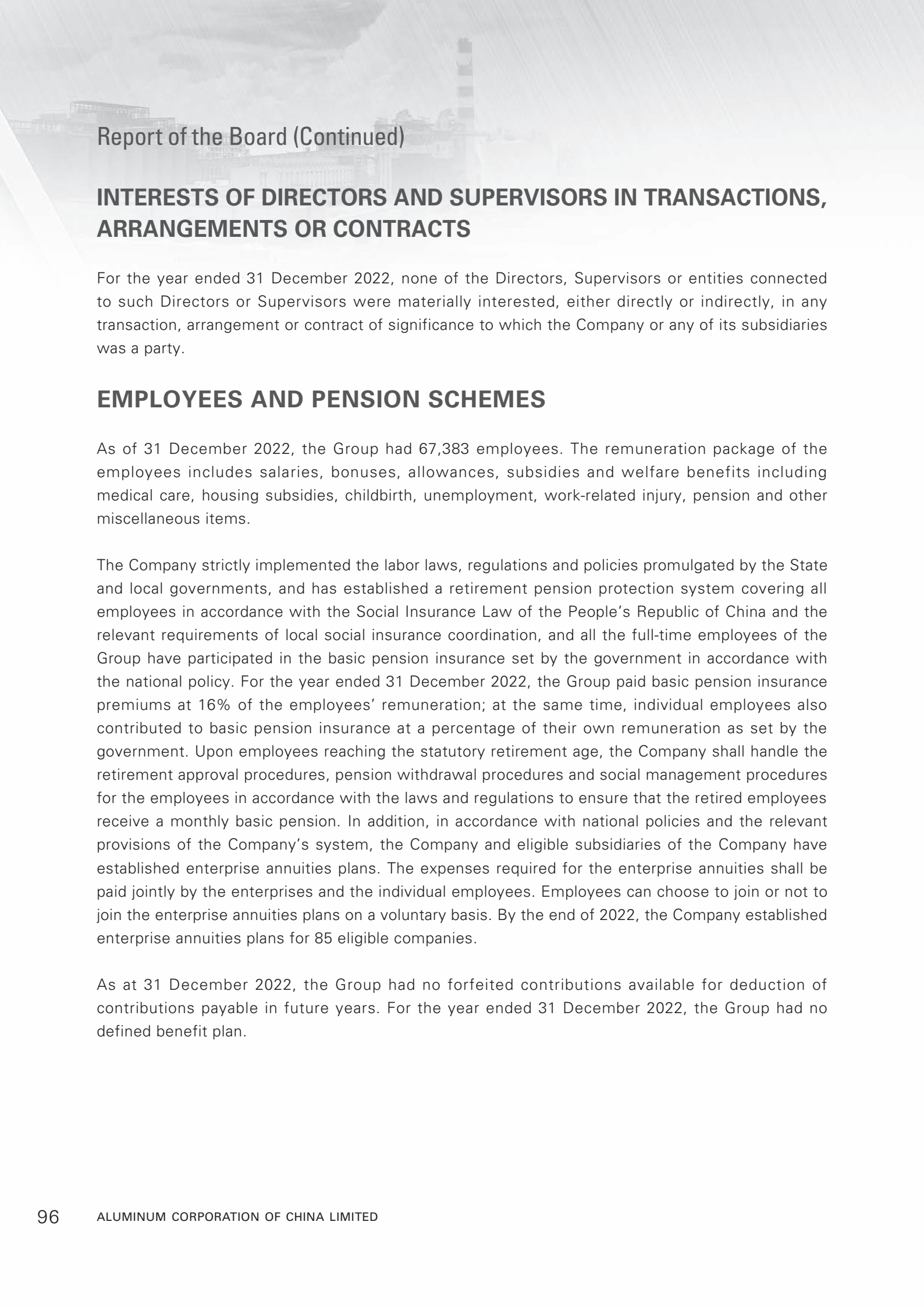
Report of the Board (Continued)

Name	Position in the Company	Nature of interests	A Shares held in the Company (share)	Percentage in total issued share capital of the Company
Zhu Runzhou	Executive Director, President	Beneficial owner	270,000	0.0016%
Ou Xiaowu	Executive Director	Beneficial owner	250,000	0.0015%
Jiang Tao	Executive Director, Vice President	Beneficial owner	230,000	0.0013%
		Spouse's interests	4,000	0.00002%
Xu Shuxiang	Supervisor	Beneficial owner	4,000	0.00002%
Total			758,000	0.0044%

The above interests beneficially owned by Mr. Zhu Runzhou, Mr. Ou Xiaowu and Mr. Jiang Tao are all interests granted to them under the 2021 Restricted Share Incentive Scheme of the Company. The interests beneficially owned by Ms. Xu Shuxiang were acquired by her in the secondary market.

Save as disclosed above, as of 31 December 2022, none of the other Directors, Supervisors or their respective associates had any interests or short positions in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of the Securities and Futures Ordinance of Hong Kong), which were (a) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the Securities and Futures Ordinance of Hong Kong; or (b) required to be recorded in the register kept by the Company pursuant to Section 352 of the Securities and Futures Ordinance of Hong Kong; or (c) required to be notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code (the “**Model Code**”) for Securities Transactions by Directors of Listed Issuers.

Save as disclosed above, Mr. Wu Maosen and Mr. Xu Feng, vice presidents of the Company, were granted 260,000 and 230,000 A shares of the Company under the 2021 Restricted Share Incentive Scheme of the Company respectively. Mr. Ge Xiaolei, the Chief Financial Officer and Secretary to the Board (Joint Company Secretary) of the Company, was granted 230,000 A shares of the Company under the 2021 Restricted Share Incentive Scheme of the Company. Otherwise, as of 31 December 2022, none of the Directors, president (chief executive), Supervisors and other senior management of the Company or their spouses or children under the age of 18 were granted the right to acquire any shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of the Securities and Futures Ordinance of Hong Kong).



Report of the Board (Continued)

INTERESTS OF DIRECTORS AND SUPERVISORS IN TRANSACTIONS, ARRANGEMENTS OR CONTRACTS

For the year ended 31 December 2022, none of the Directors, Supervisors or entities connected to such Directors or Supervisors were materially interested, either directly or indirectly, in any transaction, arrangement or contract of significance to which the Company or any of its subsidiaries was a party.

EMPLOYEES AND PENSION SCHEMES

As of 31 December 2022, the Group had 67,383 employees. The remuneration package of the employees includes salaries, bonuses, allowances, subsidies and welfare benefits including medical care, housing subsidies, childbirth, unemployment, work-related injury, pension and other miscellaneous items.

The Company strictly implemented the labor laws, regulations and policies promulgated by the State and local governments, and has established a retirement pension protection system covering all employees in accordance with the Social Insurance Law of the People's Republic of China and the relevant requirements of local social insurance coordination, and all the full-time employees of the Group have participated in the basic pension insurance set by the government in accordance with the national policy. For the year ended 31 December 2022, the Group paid basic pension insurance premiums at 16% of the employees' remuneration; at the same time, individual employees also contributed to basic pension insurance at a percentage of their own remuneration as set by the government. Upon employees reaching the statutory retirement age, the Company shall handle the retirement approval procedures, pension withdrawal procedures and social management procedures for the employees in accordance with the laws and regulations to ensure that the retired employees receive a monthly basic pension. In addition, in accordance with national policies and the relevant provisions of the Company's system, the Company and eligible subsidiaries of the Company have established enterprise annuities plans. The expenses required for the enterprise annuities shall be paid jointly by the enterprises and the individual employees. Employees can choose to join or not to join the enterprise annuities plans on a voluntary basis. By the end of 2022, the Company established enterprise annuities plans for 85 eligible companies.

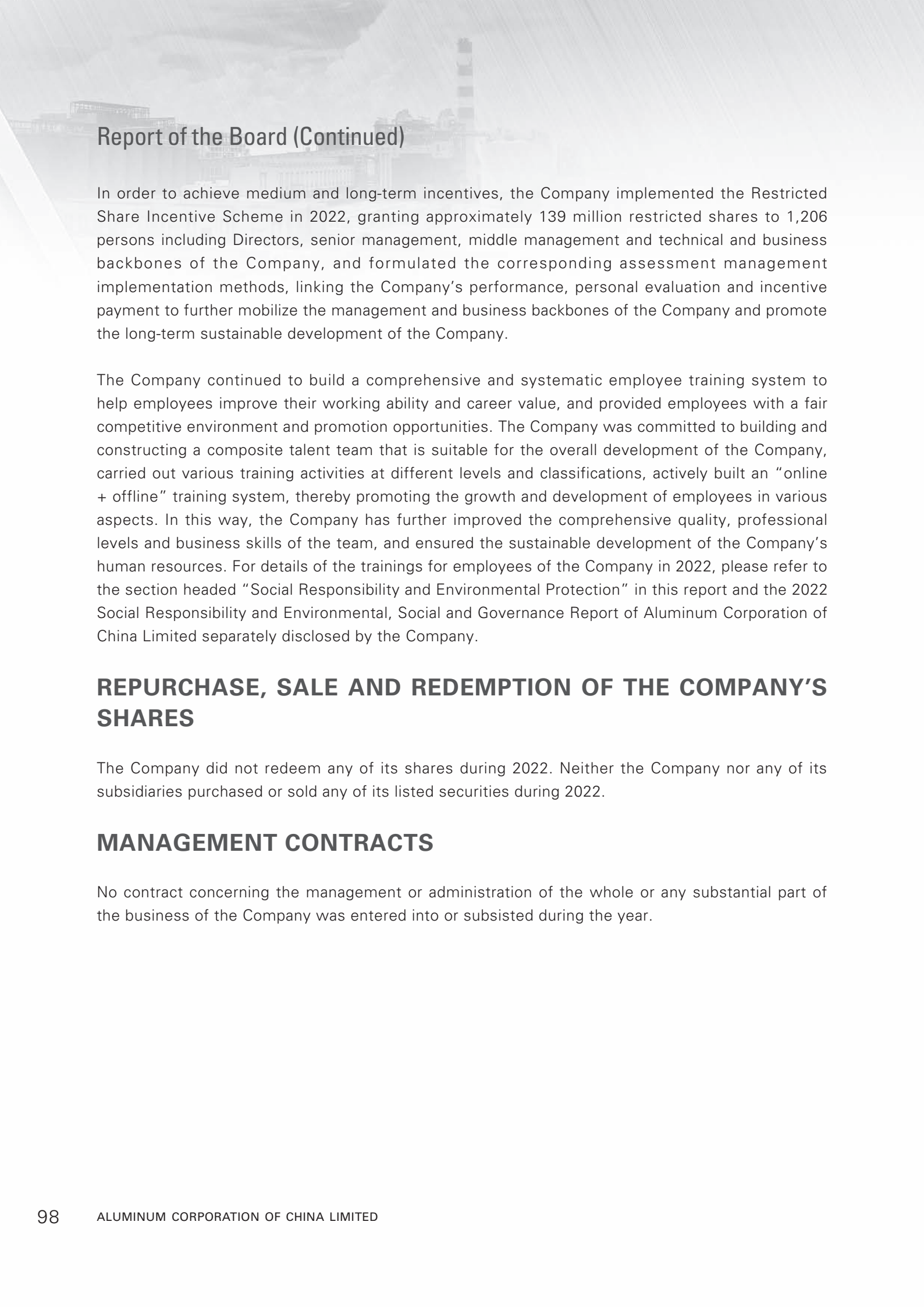
As at 31 December 2022, the Group had no forfeited contributions available for deduction of contributions payable in future years. For the year ended 31 December 2022, the Group had no defined benefit plan.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its three blades clearly visible. Other smaller turbines are scattered in the background, creating a sense of depth. The overall tone is professional and modern.

Report of the Board (Continued)

The Company has a standardized employment system, established a management system based on the labor contract law and introduced a series of labor contract management measures covering employment, recruitment, termination, remuneration, promotion and anti-discrimination, which effectively enhances the efficiency and fairness of human resources management and protects the relevant rights and interests of employees. In 2022, the Company formulated the “Administrative Measures for Public Recruitment of Aluminum Corporation of China Limited” and “Administrative Measures for Competitive of Employees of Aluminum Corporation of China Limited”, focusing on building a competitive and merit-based market-based employment mechanism, and clarifying the implementation scope and engineering process of open recruitment, and strengthening supervision and management.

In terms of employee compensation, the Company has built a salary allocation system based on job value, performance contribution and local labor market price, and strengthened the salary concept of “salary increases with the rise of performance, and decreases with the fall of performance”. In 2022, the Company continued to deepen the reform of the salary distribution system, and set up a special management method for the total salary of employees and the salary distribution of the leadership team. In accordance with the work requirements of “benchmarking all elements by disciplines to comprehensively improve the Company’s competitiveness”, it is suggested to improve the systems such as the Administrative Measures for Assessment, Evaluation and Remuneration Distribution of Senior Executives of Aluminum Corporation of China Limited, the Administrative Measures for the Total Wage of Aluminum Corporation of China Limited, the Administrative Measures for the Remuneration of Leaders of Entity Enterprises, the Administrative Measures for the Assessment of Business Performance of Enterprises Affiliated to the Company, and the 2022 Payroll Linkage Scheme of enterprises affiliated to the Company. In terms of performance assessment, the Company broke the inherent model and established a new system, which packs various assessment tools, including tenure assessment, annual assessment, scientific and technological incentives, equity incentives and special assessment to form an “assessment toolkit” to clarify various assessment objectives and give full play to the leading role of assessment.



Report of the Board (Continued)

In order to achieve medium and long-term incentives, the Company implemented the Restricted Share Incentive Scheme in 2022, granting approximately 139 million restricted shares to 1,206 persons including Directors, senior management, middle management and technical and business backbones of the Company, and formulated the corresponding assessment management implementation methods, linking the Company's performance, personal evaluation and incentive payment to further mobilize the management and business backbones of the Company and promote the long-term sustainable development of the Company.

The Company continued to build a comprehensive and systematic employee training system to help employees improve their working ability and career value, and provided employees with a fair competitive environment and promotion opportunities. The Company was committed to building and constructing a composite talent team that is suitable for the overall development of the Company, carried out various training activities at different levels and classifications, actively built an "online + offline" training system, thereby promoting the growth and development of employees in various aspects. In this way, the Company has further improved the comprehensive quality, professional levels and business skills of the team, and ensured the sustainable development of the Company's human resources. For details of the trainings for employees of the Company in 2022, please refer to the section headed "Social Responsibility and Environmental Protection" in this report and the 2022 Social Responsibility and Environmental, Social and Governance Report of Aluminum Corporation of China Limited separately disclosed by the Company.

REPURCHASE, SALE AND REDEMPTION OF THE COMPANY'S SHARES

The Company did not redeem any of its shares during 2022. Neither the Company nor any of its subsidiaries purchased or sold any of its listed securities during 2022.

MANAGEMENT CONTRACTS

No contract concerning the management or administration of the whole or any substantial part of the business of the Company was entered into or subsisted during the year.

MAJOR CUSTOMERS AND SUPPLIERS

1. Major Customers

The Company adheres to the marketing philosophy of honesty and service first, which takes the market as the guide, strives to build itself into a company and partner that customers are willing to deal with, and has established mutual trust and long-term relationships with customers. The Company always insists on providing quality products and services to customers, and is committed to building a quality brand of “better aluminum, Chalco’s forte (要好鋁找中鋁)”, so as to promote product diversification in a faster and better way, get closer to customers’ needs and actively expand customer base. The Company has established an orderly, coordinated and efficient marketing management system and formed a nationwide sales network. By providing customers with high quality products and technical support, and actively providing pre-sales, in-sales and after-sales services, the Company creates value for customers to achieve common development. In addition, the Company established an after-sales service feedback mechanism to provide timely statistics and feedback on customer complaints, and formulated a special complaint management system to ensure that all complaints can be properly handled. In 2022, there were no complaints from customers of the Company.

The Company’s major customers are, in respect of alumina, domestic electrolytic aluminum enterprises, and in respect of primary aluminum, domestic aluminum fabrication enterprises and distributors.

The Company sells alumina products to customers mainly through long-term sales agreements and spot market sales. The Company sells self-produced alumina and certain alumina products sourced from external suppliers under spot contracts signed with third parties and long-term sales agreements with a term ranging from one to three years. Such long-term sales agreements usually specify annual or monthly sales quantities, pricing mechanisms, payment terms, place of delivery and delivery method for the alumina sold. The selling prices for alumina sold on the spot market are determined by the Company by taking into account (i) domestic and international situation of supply and demand; (ii) CIF price of imported alumina arrived at Chinese ports and import related expenses; (iii) international and domestic transportation costs; (iv) the impacts of national policy on raw materials required for alumina enterprises; and (v) the Company’s short-term and medium-term forecast for alumina market.

Report of the Board (Continued)

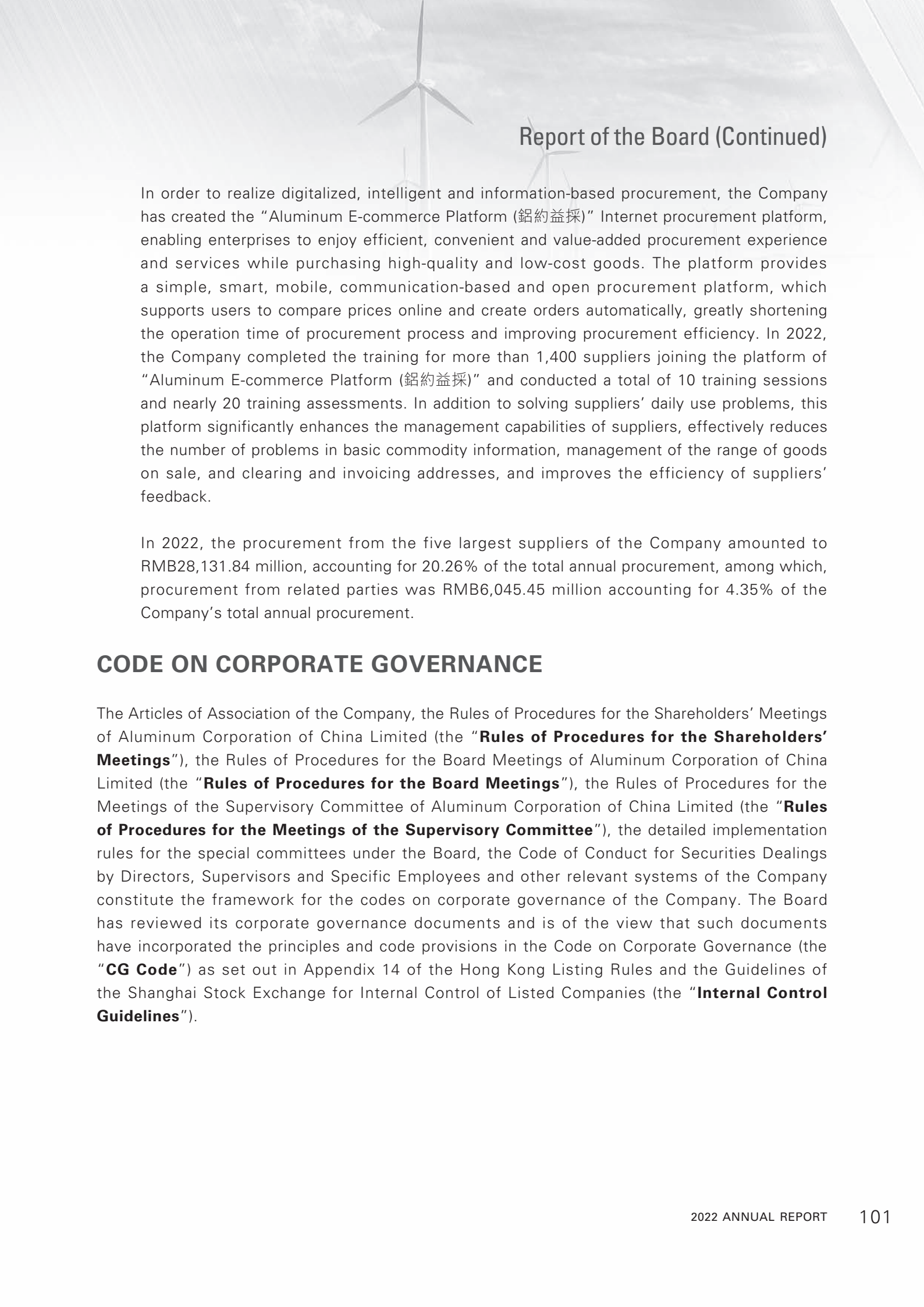
The Company sells primary aluminum products to customers mainly through the following three ways: (i) sales agreements, which are entered into between the Company and its customers that have longstanding business relationship with it, generally with a term of one year and selling prices determined based on the prices quoted on the Shanghai Futures Exchange and prevailing market prices; (ii) futures contracts ranging from one to twelve months on the Shanghai Futures Exchange; and (iii) spot market sales, with selling prices determined by reference to such factors as market spot prices and transportation costs.

In 2022, the sales to the five largest customers of the Company amounted to RMB28,297.41 million and accounted for 9.72% of the Company's total annual sales, among which, sales to related parties were RMB4,769.35 million, accounting for 1.64% of the Company's total annual sales.

2. Suppliers

Building a stable and sustainable supply chain is the core link of the Company's business development. The Company strives to provide an open, transparent and fair collaboration environment for suppliers, and keeps building a stable and sustainable supply chain by optimizing management system, standardizing management measures, establishing digital procurement platform. The Company ensures the stable and sustainable supply chain as well as the benefits for suppliers, and supports suppliers to make better management that enable developments in the supply chain for both suppliers and the Company.

To strengthen the dynamic management of suppliers, the Company has formulated the Suppliers Management Measures of Aluminum Corporation of China Limited, which was comprehensively revised and improved in 2022. It mainly put forward the requirements of classifying suppliers according to the supplies and even materials supplied in the access and assessment, and scoring the past operation of suppliers, and clearly stipulated that suppliers shall not have any bad records of seriously violating the relevant regulations on social responsibility in the society or the industry, otherwise they cannot be shortlisted as suppliers for the Company's collective procurement or regional procurement, thus eliminating suppliers with poor social responsibility performance from the source. In addition, extra points are awarded to suppliers with green certification in the annual assessment of suppliers, and separate awards for green and environmental protection are set up in the annual recommendation of excellent suppliers to give full recognition to companies that have made contributions to the environment. The Company also attaches great importance to maintaining long-term and stable cooperation relationships with suppliers, establishes sustainable supply chain system and strengthens the relationship and communication with suppliers by various means such as holding annual meetings with suppliers, summary of procurement work and participation in commodity trade meeting with a view to consolidate the cooperation with excellent suppliers.

A large, faint image of a wind turbine serves as the background for the top half of the page.

Report of the Board (Continued)

In order to realize digitalized, intelligent and information-based procurement, the Company has created the “Aluminum E-commerce Platform (鋁約益採)” Internet procurement platform, enabling enterprises to enjoy efficient, convenient and value-added procurement experience and services while purchasing high-quality and low-cost goods. The platform provides a simple, smart, mobile, communication-based and open procurement platform, which supports users to compare prices online and create orders automatically, greatly shortening the operation time of procurement process and improving procurement efficiency. In 2022, the Company completed the training for more than 1,400 suppliers joining the platform of “Aluminum E-commerce Platform (鋁約益採)” and conducted a total of 10 training sessions and nearly 20 training assessments. In addition to solving suppliers’ daily use problems, this platform significantly enhances the management capabilities of suppliers, effectively reduces the number of problems in basic commodity information, management of the range of goods on sale, and clearing and invoicing addresses, and improves the efficiency of suppliers’ feedback.

In 2022, the procurement from the five largest suppliers of the Company amounted to RMB28,131.84 million, accounting for 20.26% of the total annual procurement, among which, procurement from related parties was RMB6,045.45 million accounting for 4.35% of the Company’s total annual procurement.

CODE ON CORPORATE GOVERNANCE

The Articles of Association of the Company, the Rules of Procedures for the Shareholders’ Meetings of Aluminum Corporation of China Limited (the “**Rules of Procedures for the Shareholders’ Meetings**”), the Rules of Procedures for the Board Meetings of Aluminum Corporation of China Limited (the “**Rules of Procedures for the Board Meetings**”), the Rules of Procedures for the Meetings of the Supervisory Committee of Aluminum Corporation of China Limited (the “**Rules of Procedures for the Meetings of the Supervisory Committee**”), the detailed implementation rules for the special committees under the Board, the Code of Conduct for Securities Dealings by Directors, Supervisors and Specific Employees and other relevant systems of the Company constitute the framework for the codes on corporate governance of the Company. The Board has reviewed its corporate governance documents and is of the view that such documents have incorporated the principles and code provisions in the Code on Corporate Governance (the “**CG Code**”) as set out in Appendix 14 of the Hong Kong Listing Rules and the Guidelines of the Shanghai Stock Exchange for Internal Control of Listed Companies (the “**Internal Control Guidelines**”).

Report of the Board (Continued)

AUDIT COMMITTEE

The written terms of reference in relation to the authorities and duties of the Audit Committee were prepared and adopted in accordance with and with reference to “A Guide for the Formation of an Audit Committee” published by the Hong Kong Institute of Certified Public Accountants.

The financial statements of the Company for the year ended 31 December 2022 have been reviewed by the Audit Committee of the Company.

AUDITORS

The financial statements in this report have been audited by PricewaterhouseCoopers. PricewaterhouseCoopers was the auditor of the Company for its 2022 Hong Kong annual report.

PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers have been engaged as the domestic and overseas auditors of the Company since 2020. PricewaterhouseCoopers Zhong Tian LLP is principally responsible for the Company’s domestic and US audit business (including internal control audit), while PricewaterhouseCoopers is principally responsible for the Company’s Hong Kong audit business.

Upon consideration and approval at the twenty-sixth meeting of the seventh session of the Board held on 22 March 2022 and the 2021 annual general meeting of the Company held on 21 June 2022, PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers were re-appointed by the Company as the 2022 domestic and overseas auditors of the Company. The Company has not changed its auditor in the past three years.

For further details of the auditors of the Company, please refer to the section headed “Auditors’ Remuneration” of the “Report on Corporate Governance and Internal Control” in this annual report.

By order of the Board

Liu Jianping

Chairman

Beijing, the PRC

21 March 2023

Report of the Supervisory Committee

Dear shareholders,

In 2022, pursuant to duties conferred by Articles of Association and the Rules of Procedures for the Supervisory Committee of the Company, the Supervisory Committee of the Company has performed its supervisory function diligently and dutifully with the attitude of being responsible to all shareholders, supervised the Company's legal operation and the performance of duties by the Company's Directors and senior management, continuously standardized the supervision behavior, improved the supervision efficiency, enhanced the transparency and standardization of the Company's operations, maintaining a good image of the Company in the capital market and protecting the interests of investors, especially small and medium-sized investors, through regular or irregular meetings.

I. COMPOSITION OF THE SUPERVISORY COMMITTEE

Pursuant to the provisions of the Articles of Association, the Supervisory Committee of the Company consisted of five Supervisors, including three shareholder representative Supervisors and two employee representative Supervisors. During the reporting period, in view of the expiry of the term of office of the seventh session of the Supervisory Committee of the Company in June 2022, the Supervisors of the eighth session of the Supervisory Committee of the Company were elected at the fifteenth meeting of the seventh session of the Supervisory Committee held on 25 April 2022 as well as the 2021 annual general meeting and the employees' representatives meeting held on 21 June 2022. During the reporting period, the members of the Supervisory Committee of the Company include:

Shareholder Representative Supervisors:

Mr. Ye Guohua (Chairman of the Supervisory Committee, re-appointed on 21 June 2022)

Ms. Shan Shulan (Re-appointed on 21 June 2022)

Ms. Lin Ni (Re-appointed on 21 June 2022)

Employee Representative Supervisors:

Mr. Guan Xiaoguang (Resigned on 18 March 2022)

Mr. Yue Xuguang (Re-appointed on 21 June 2022)

Ms. Xu Shuxiang (Appointed on 18 March 2022, and re-appointed on 21 June 2022)

Report of the Supervisory Committee (Continued)

II. CONVENING OF MEETINGS

In 2022, eight meetings were held by the Supervisory Committee of the Company, including six on-site meetings and two telecommunication meetings. The particulars are as follows:

Date of Meeting	Session	Convening Method	Resolution
2022.03.21	The 13th meeting of the seventh session of the Supervisory Committee	On-site meeting	Seven resolutions were considered and approved, including the resolutions on the Company's 2021 annual report, annual working report of the Supervisory Committee, annual assessment report on internal control, annual profit distribution proposal, ESG report, provision for asset impairment and change of accounting policy
2022.04.06	The 14th meeting of the seventh session of the Supervisory Committee	Telecommunication meeting	One resolution was considered and approved, namely the Resolution on the Adjustment to the 2021 Restricted Share Incentive Scheme (Draft) and its Summary and the Appraisal Management Measures for the Implementation
2022.04.25	The 15th meeting of the seventh session of the Supervisory Committee	On-site meeting	Two resolutions were considered and approved, including the resolutions on the 2022 first quarterly report of the Company and the Nomination of Candidates for Shareholder Representative Supervisor of the Eighth Session of the Supervisory Committee of the Company
2022.05.24	The 16th meeting of the seventh session of the Supervisory Committee	On-site meeting	Two resolutions were considered and approved, including the Resolution in relation to Relevant Matters on the Adjustment to the 2021 Restricted Share Incentive Scheme of the Company and the Resolution in relation to First Grant of Restricted Shares to Participants
2022.06.21	The 1st meeting of the eighth session of the Supervisory Committee	On-site meeting	One resolution was considered and approved, namely the Resolution on the Election of the Chairman of the Eighth Session of the Supervisory Committee of the Company

Report of the Supervisory Committee (Continued)

Date of Meeting	Session	Convening Method	Resolution
2022.08.22	The 2nd meeting of the eighth session of the Supervisory Committee	On-site meeting	Three resolutions were considered and approved, including the Resolution on the Company's 2022 Interim Report, the Resolution on the Provision for Asset Impairment in the First Half of 2022 and the Resolution on the Change of Accounting Policy
2022.10.25	The 3rd meeting of the eighth session of the Supervisory Committee	On-site meeting	One resolution was considered and approved, namely the Resolution in relation to the 2022 Third Quarterly Report of the Company
2022.11.23	The 4th meeting of the eighth session of the Supervisory Committee	Telecommunication meeting	One resolution was considered and approved, namely the Resolution on the Proposed Grant of Reserved Restricted Shares to Participants under the 2021 Restricted Share Incentive Scheme of the Company

All of the above-mentioned meetings of the Supervisory Committee were in accordance with the relevant provisions of the Company Law of the People's Republic of China (the "**Company Law**"), the Articles of Association and the Rules of Procedures for the Meetings of the Supervisory Committee of the Company.

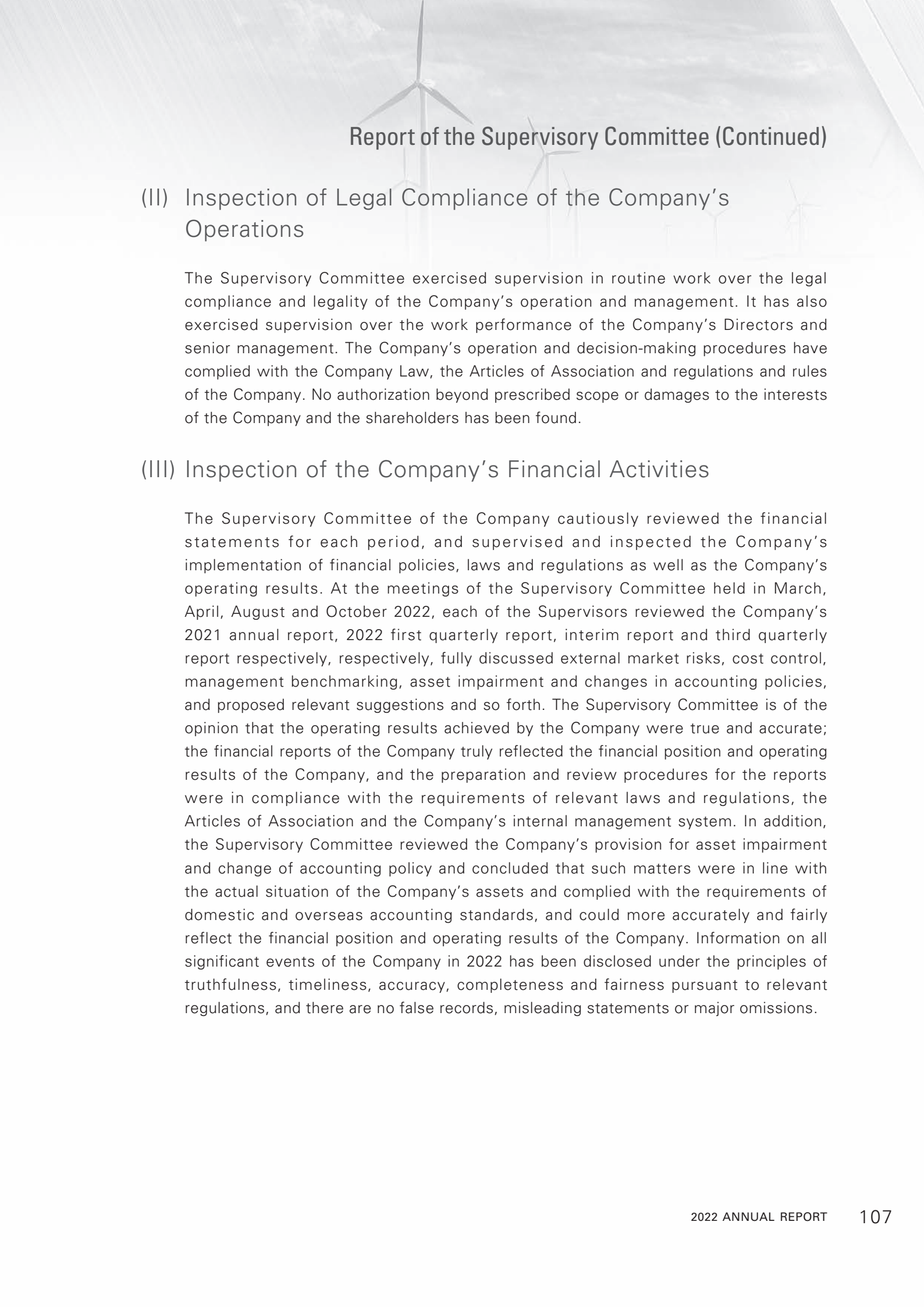
Report of the Supervisory Committee (Continued)

III. PERFORMANCE OF THE SUPERVISORY COMMITTEE

In 2022, each Supervisor of the Company effectively supervised the Company's business decisions, accounting, internal control, related party transactions and other matters such as organizing and convening supervisory meetings, attending general meetings, sitting in the Board meetings to indicate operating risks and propose operation-related suggestions. The particulars are set out as below:

(I) Supervision of Implementation of General Meeting Resolutions

Members of the Supervisory Committee exercised supervision on the proposals and reports submitted to the general meetings and the Board for consideration by way of attending general meetings and sitting in Board meetings. The Supervisory Committee exercised supervision on the implementation of the 2021 Restricted Share Incentive Scheme of the Company. The Supervisory Committee is of the opinion that the conditions for the implementation of the Restricted Share Incentive Scheme were met, the incentive scheme proposal formulated and the Participants identified had complied with relevant laws, regulations, regulatory documents and the Articles of Association, and the Board of the Company strictly implemented the Restricted Share Incentive Scheme in strict accordance with the authorisation of the general meetings to determine the final grant price, the number of shares to be granted, etc, and made timely and complete information disclosure. Moreover, the Supervisory Committee exercised supervision on implementation of the general meeting resolutions by the Board, all Directors and senior management. When the Directors and senior management of the Company exercised their functions and powers, no violations of laws, regulations and good faith and diligence obligations are found, and the Board and the management strictly implemented the resolutions approved at the general meetings and the Board meetings.

The background of the page features a grayscale image of several wind turbines. One turbine is prominently visible in the upper left, with its blades extending towards the top of the frame. Other turbines are scattered in the background, creating a sense of depth. The overall tone is professional and clean.

Report of the Supervisory Committee (Continued)

(II) Inspection of Legal Compliance of the Company's Operations

The Supervisory Committee exercised supervision in routine work over the legal compliance and legality of the Company's operation and management. It has also exercised supervision over the work performance of the Company's Directors and senior management. The Company's operation and decision-making procedures have complied with the Company Law, the Articles of Association and regulations and rules of the Company. No authorization beyond prescribed scope or damages to the interests of the Company and the shareholders has been found.

(III) Inspection of the Company's Financial Activities

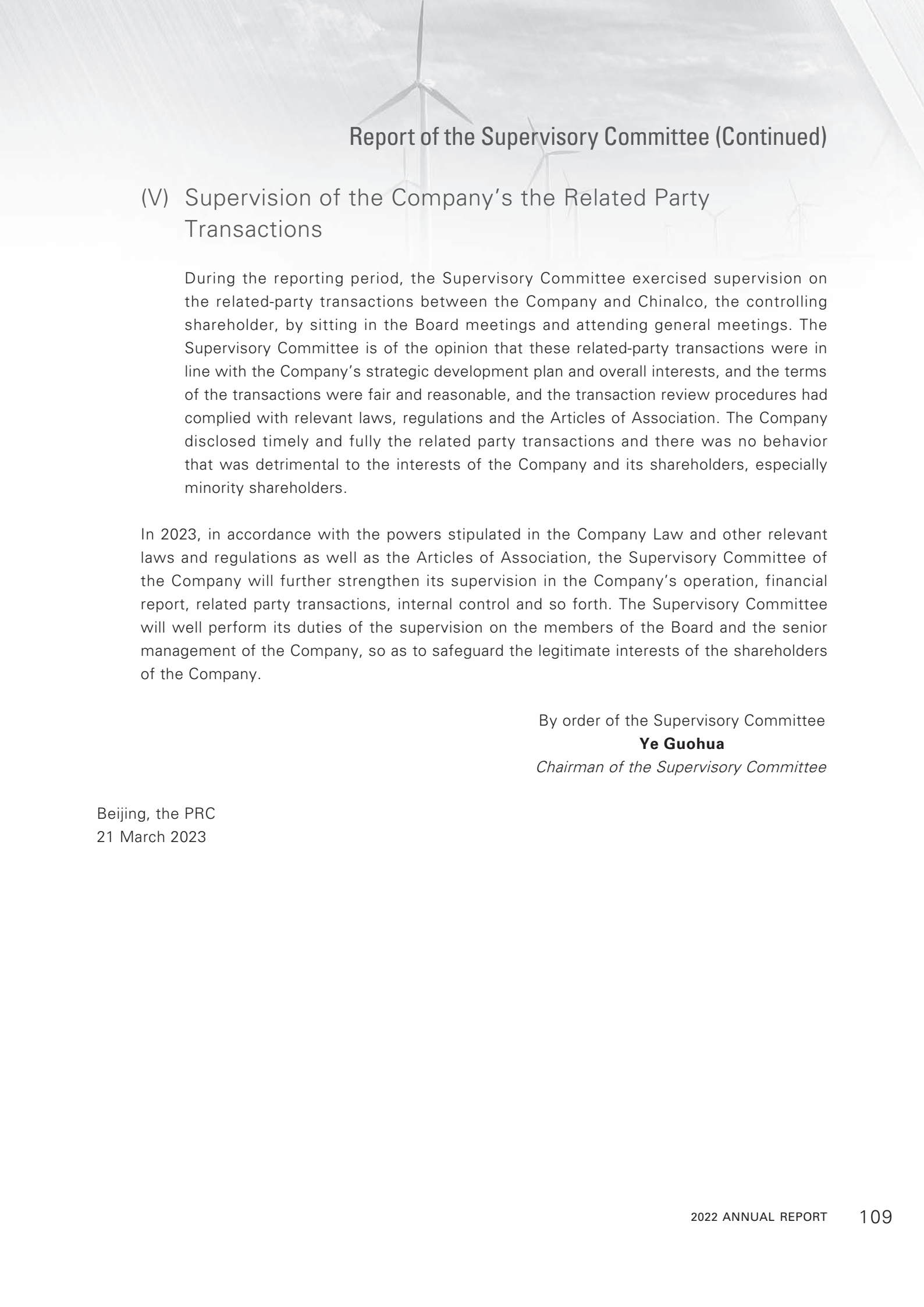
The Supervisory Committee of the Company cautiously reviewed the financial statements for each period, and supervised and inspected the Company's implementation of financial policies, laws and regulations as well as the Company's operating results. At the meetings of the Supervisory Committee held in March, April, August and October 2022, each of the Supervisors reviewed the Company's 2021 annual report, 2022 first quarterly report, interim report and third quarterly report respectively, respectively, fully discussed external market risks, cost control, management benchmarking, asset impairment and changes in accounting policies, and proposed relevant suggestions and so forth. The Supervisory Committee is of the opinion that the operating results achieved by the Company were true and accurate; the financial reports of the Company truly reflected the financial position and operating results of the Company, and the preparation and review procedures for the reports were in compliance with the requirements of relevant laws and regulations, the Articles of Association and the Company's internal management system. In addition, the Supervisory Committee reviewed the Company's provision for asset impairment and change of accounting policy and concluded that such matters were in line with the actual situation of the Company's assets and complied with the requirements of domestic and overseas accounting standards, and could more accurately and fairly reflect the financial position and operating results of the Company. Information on all significant events of the Company in 2022 has been disclosed under the principles of truthfulness, timeliness, accuracy, completeness and fairness pursuant to relevant regulations, and there are no false records, misleading statements or major omissions.



Report of the Supervisory Committee (Continued)

(IV) Review of Internal Control Assessment Report

During the reporting period, the Supervisory Committee listened to the Internal Control Assessment Report of the Company and fully performed its role of guidance and supervision. The Supervisory Committee, after reviewing the Annual Internal Control Assessment Report of the Company and the Directors' working papers on the Company's internal control assessment, is of the view that the Company's annual internal control evaluation report truly summarized the basic situation of the Company's internal control evaluation and objectively reflected the construction and operation of the Company's internal control system. The Company has established and improved an internal control system covering the Company's various processes and implemented it effectively, which played an effective role in risk prevention and control in all aspects of the Company's operation and management in accordance with the requirements of the Guidelines for Internal Control of Listed Companies and the Basic Principles of Corporate Internal Control. The Supervisory Committee also proposed good opinions and suggestions on macro-environment changes, fluctuation of bulk raw fuel purchase price, all-factor benchmarking, provision for asset impairment, revision of internal control system and other work in light of the Company's phased operating characteristics.



Report of the Supervisory Committee (Continued)

(V) Supervision of the Company's the Related Party Transactions

During the reporting period, the Supervisory Committee exercised supervision on the related-party transactions between the Company and Chinalco, the controlling shareholder, by sitting in the Board meetings and attending general meetings. The Supervisory Committee is of the opinion that these related-party transactions were in line with the Company's strategic development plan and overall interests, and the terms of the transactions were fair and reasonable, and the transaction review procedures had complied with relevant laws, regulations and the Articles of Association. The Company disclosed timely and fully the related party transactions and there was no behavior that was detrimental to the interests of the Company and its shareholders, especially minority shareholders.

In 2023, in accordance with the powers stipulated in the Company Law and other relevant laws and regulations as well as the Articles of Association, the Supervisory Committee of the Company will further strengthen its supervision in the Company's operation, financial report, related party transactions, internal control and so forth. The Supervisory Committee will well perform its duties of the supervision on the members of the Board and the senior management of the Company, so as to safeguard the legitimate interests of the shareholders of the Company.

By order of the Supervisory Committee

Ye Guohua

Chairman of the Supervisory Committee

Beijing, the PRC
21 March 2023

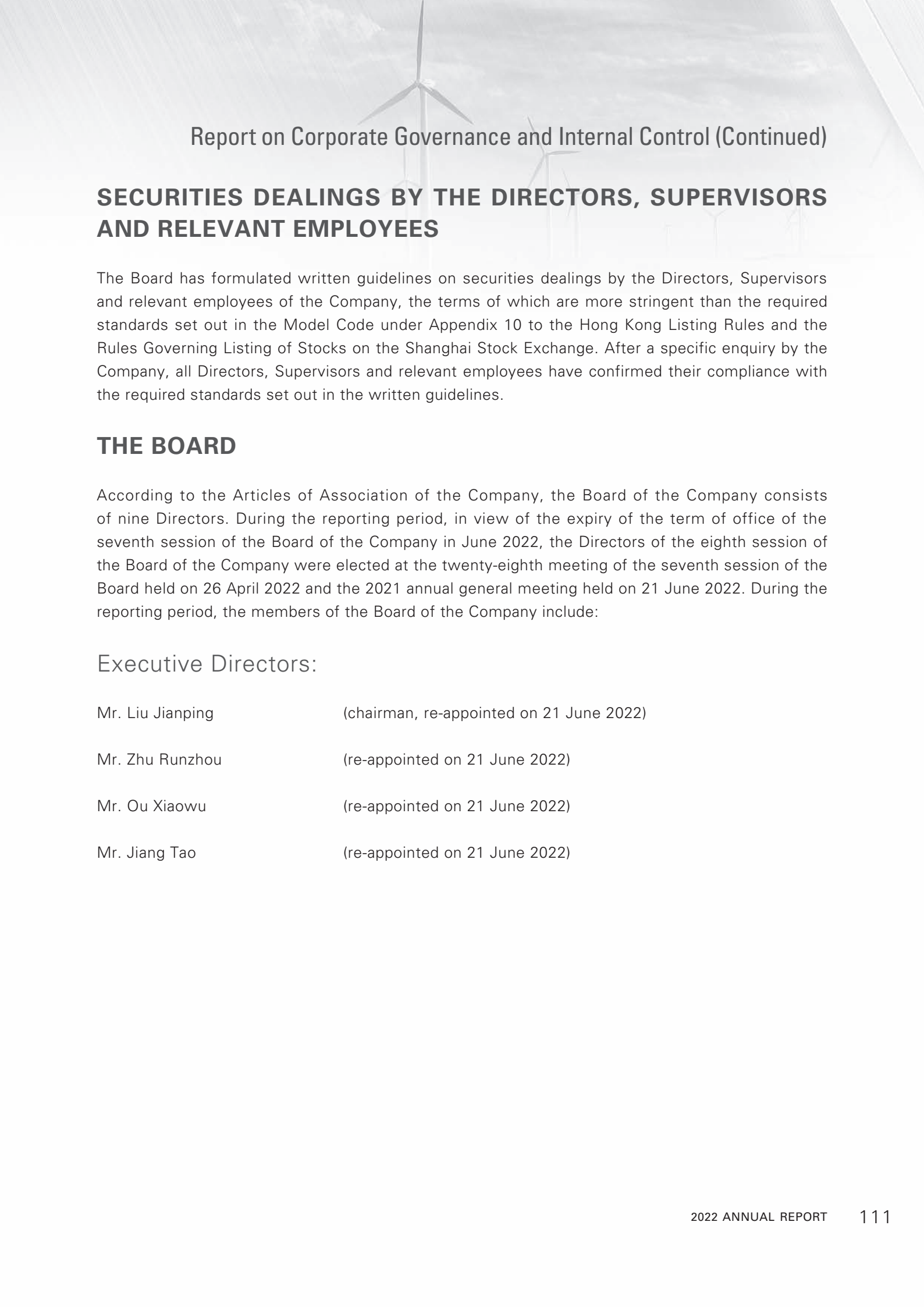
Report on Corporate Governance and Internal Control

CODE ON CORPORATE GOVERNANCE

The Articles of Association, the Rules of Procedures for the Shareholders' Meetings, the Rules of Procedures for the Board Meetings, the Rules of Procedures for the Meetings of the Supervisory Committee, the detailed implementation rules for the special committees under the Board, the detailed implementation rules for independent Directors, the Code of Conduct for Securities Dealings by Directors, Supervisors and Specific Employees and other relevant systems of the Company constitute the corporate governance documents of the Company. After reviewing such documents, the Board believed that the Company had fully complied with the CG Code and the Internal Control Guidelines in 2022, and implemented them in a stricter way in some areas:

1. The Company has appointed a sufficient number of non-executive Directors (including independent non-executive Directors); the Board of the Company has five non-executive Directors (including independent non-executive Directors), representing more than half of the Board; the Board of the Company has three independent non-executive Directors, reaching one third of the Board.
2. There is one female member in the Board of the Company.
3. In addition to the Audit Committee, the Remuneration Committee and the Nomination Committee under the Board, the Company has also established the Development and Planning Committee and Occupational Health & Safety and Environment Committee.
4. All members of the Audit Committee under the Board are independent non-executive Directors, among whom, Ms. Chan Yuen Sau Kelly, the chairman of such committee, a senior member of the Association of Chartered Certified Accountants (ACCA), a senior member of the Hong Kong Institute of Certified Public Accountants (HKICPA), a senior member of the Hong Kong Institute of Directors (HKIoD) and a bachelor with honours of Accounting Department, City University of Hong Kong, possesses extensive professional experience in finance and auditing and is the financial expert of the Board of the Company.
5. Independent non-executive Directors constitute the majority of the Remuneration Committee and the Nomination Committee under the Board, and serve as the chairmen.

The Board of the Company has reviewed its corporate governance documents and Internal Control Guidelines, and is of the view that, the Company has complied with the code provisions in the CG Code and Internal Control Guidelines for the year ended 31 December 2022.



Report on Corporate Governance and Internal Control (Continued)

SECURITIES DEALINGS BY THE DIRECTORS, SUPERVISORS AND RELEVANT EMPLOYEES

The Board has formulated written guidelines on securities dealings by the Directors, Supervisors and relevant employees of the Company, the terms of which are more stringent than the required standards set out in the Model Code under Appendix 10 to the Hong Kong Listing Rules and the Rules Governing Listing of Stocks on the Shanghai Stock Exchange. After a specific enquiry by the Company, all Directors, Supervisors and relevant employees have confirmed their compliance with the required standards set out in the written guidelines.

THE BOARD

According to the Articles of Association of the Company, the Board of the Company consists of nine Directors. During the reporting period, in view of the expiry of the term of office of the seventh session of the Board of the Company in June 2022, the Directors of the eighth session of the Board of the Company were elected at the twenty-eighth meeting of the seventh session of the Board held on 26 April 2022 and the 2021 annual general meeting held on 21 June 2022. During the reporting period, the members of the Board of the Company include:

Executive Directors:

Mr. Liu Jianping	(chairman, re-appointed on 21 June 2022)
Mr. Zhu Runzhou	(re-appointed on 21 June 2022)
Mr. Ou Xiaowu	(re-appointed on 21 June 2022)
Mr. Jiang Tao	(re-appointed on 21 June 2022)

Report on Corporate Governance and Internal Control (Continued)

Non-executive Directors:

Mr. Zhang Jilong (Re-appointed on 21 June 2022)

Mr. Wang Jun (Resigned on 21 June 2022)

Mr. Chen Pengjun (Appointed on 21 June 2022)

Independent Non-executive Directors:

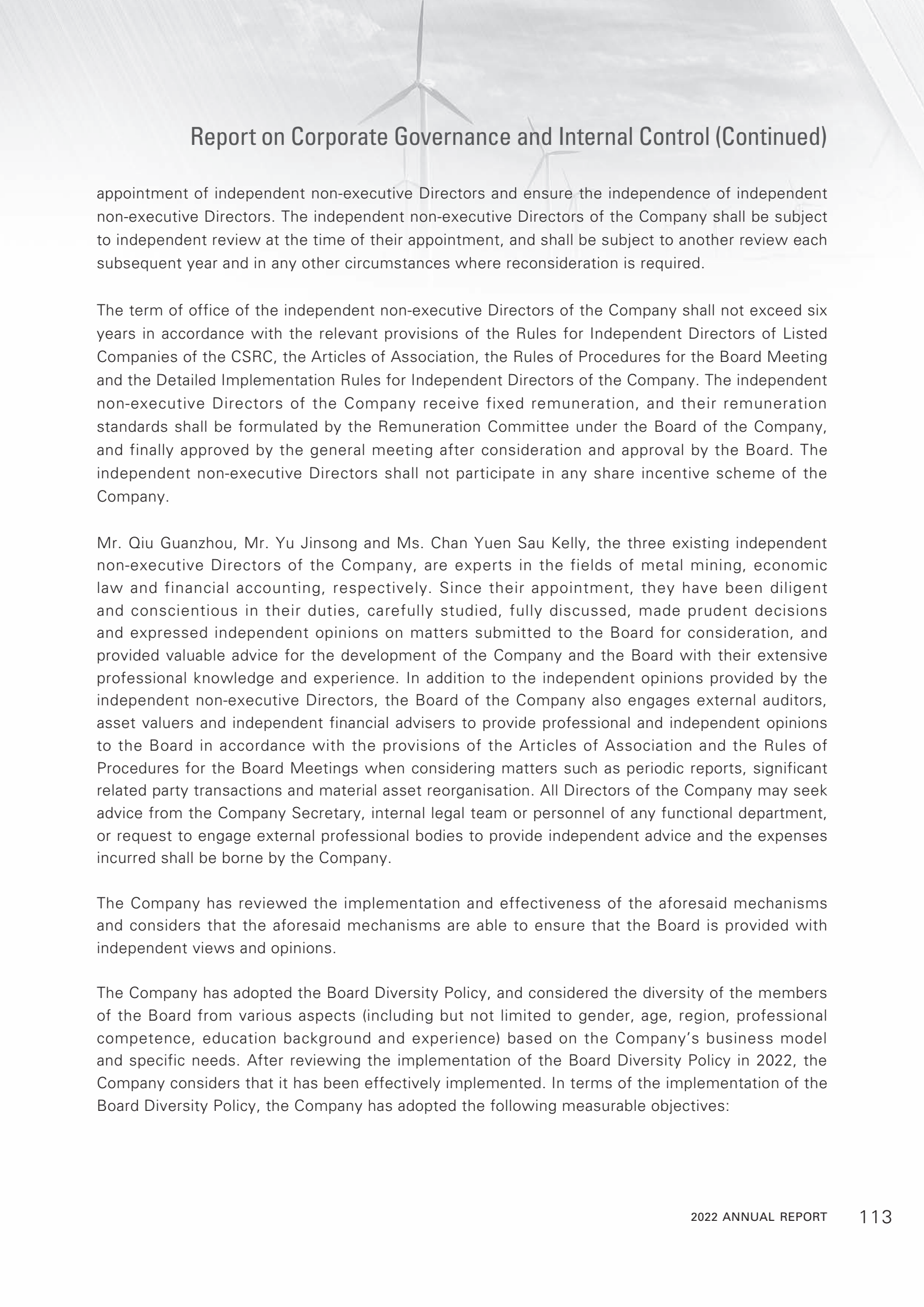
Mr. Qiu Guanzhou (Re-appointed on 21 June 2022)

Mr. Yu Jinsong (Re-appointed on 21 June 2022)

Ms. Chan Yuen Sau Kelly (Re-appointed on 21 June 2022)

According to the Article of Association of the Company, the Directors (including non-executive Directors) have a term of office of three years and may be re-appointed by election. The Board of the Company confirmed that it has received the annual written confirmation of independence from each independent non-executive Director pursuant to Rule 3.13 of the Hong Kong Listing Rules, and after careful consultation, it considered that Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly were all independent.

In order to ensure the independence of independent non-executive Directors to enable the Board to obtain independent views, apart from the relevant provisions on the election of independent non-executive Directors and their independence in the Articles of Association and the Rules of Procedures for the Board Meetings, the Company has also formulated the Detailed Implementation Rules for Independent Directors of Aluminum Corporation of China Limited (the “**Detailed Implementation Rules for Independent Directors**”), which details and clarifies the qualification and independence requirements of independent non-executive Directors, the nomination, election and term of office of independent non-executive Director candidates, as well as the duties, obligations and legal responsibilities of independent non-executive Directors. In the election of independent non-executive Directors of the Company, candidates may be selected from the talent pool of independent non-executive Directors or recommended by other Directors (including independent non-executive Directors) or personnel; the independent non-executive Director candidates shall be nominated by the Board, the Supervisory Committee and shareholders who alone or together hold 1% or more of the shares of the Company carrying voting rights, and independent non-executive Directors shall constitute the majority of the Nomination Committee under the Board and an independent non-executive Director shall serve as the chairman; the cumulative voting system for the election of independent non-executive Directors shall be adopted at general meetings to minimise the influence of major shareholders on the selection and

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white with three blades each, and they are spaced out across the landscape. The sky is overcast with soft, grey clouds.

Report on Corporate Governance and Internal Control (Continued)

appointment of independent non-executive Directors and ensure the independence of independent non-executive Directors. The independent non-executive Directors of the Company shall be subject to independent review at the time of their appointment, and shall be subject to another review each subsequent year and in any other circumstances where reconsideration is required.

The term of office of the independent non-executive Directors of the Company shall not exceed six years in accordance with the relevant provisions of the Rules for Independent Directors of Listed Companies of the CSRC, the Articles of Association, the Rules of Procedures for the Board Meeting and the Detailed Implementation Rules for Independent Directors of the Company. The independent non-executive Directors of the Company receive fixed remuneration, and their remuneration standards shall be formulated by the Remuneration Committee under the Board of the Company, and finally approved by the general meeting after consideration and approval by the Board. The independent non-executive Directors shall not participate in any share incentive scheme of the Company.

Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly, the three existing independent non-executive Directors of the Company, are experts in the fields of metal mining, economic law and financial accounting, respectively. Since their appointment, they have been diligent and conscientious in their duties, carefully studied, fully discussed, made prudent decisions and expressed independent opinions on matters submitted to the Board for consideration, and provided valuable advice for the development of the Company and the Board with their extensive professional knowledge and experience. In addition to the independent opinions provided by the independent non-executive Directors, the Board of the Company also engages external auditors, asset valuers and independent financial advisers to provide professional and independent opinions to the Board in accordance with the provisions of the Articles of Association and the Rules of Procedures for the Board Meetings when considering matters such as periodic reports, significant related party transactions and material asset reorganisation. All Directors of the Company may seek advice from the Company Secretary, internal legal team or personnel of any functional department, or request to engage external professional bodies to provide independent advice and the expenses incurred shall be borne by the Company.

The Company has reviewed the implementation and effectiveness of the aforesaid mechanisms and considers that the aforesaid mechanisms are able to ensure that the Board is provided with independent views and opinions.

The Company has adopted the Board Diversity Policy, and considered the diversity of the members of the Board from various aspects (including but not limited to gender, age, region, professional competence, education background and experience) based on the Company's business model and specific needs. After reviewing the implementation of the Board Diversity Policy in 2022, the Company considers that it has been effectively implemented. In terms of the implementation of the Board Diversity Policy, the Company has adopted the following measurable objectives:

Report on Corporate Governance and Internal Control (Continued)

- There is at least one female member in the Board;
- At least one independent non-executive Director in the Board shall reside in Hong Kong;
- At least one financial expert in the Board shall have the professional qualifications and experience in finance and audit recognized by the regulatory authorities;
- The number of non-executive Directors (including independent non-executive Directors) in the Board shall account for more than half of the Board members, and the number of independent non-executive Directors shall account for one-third of the Board members;
- The age composition of Directors is reasonable. Among the existing nine Directors, seven aged 40–60, one aged 60–70 and one aged over 70;
- The professional diversity of Directors. The existing nine Directors have different academic qualifications and professional backgrounds, and have deep attainments and rich experience in corporate management, energy, metal mining, law, financial accounting, finance and capital operation.

As of 31 December 2022, the Company has achieved the measurable objectives set out in the Board Diversity Policy.

For the gender ratio of all employees and senior management of the Company, please refer to the section headed “Employees of the Company” of “Directors, Supervisors, Senior Management and Employees” in this report.

The major duties of the Board of the Company include: deciding on the Company’s business plans and investment proposals, formulating the Company’s profit distribution and loss recovery proposals; formulating the Company’s debt and finance policies, and the issuance of bonds, etc.; determining plans for material acquisitions or disposals as well as mergers, demergers and dissolution of the Company; determining the establishment of internal management department and branch of the Company; appointment and dismissal of senior management; formulating basic management system of the Company; promoting the establishment of a compliance management system and monitoring the performance of compliance management of managers; developing the ESG management strategies and monitoring the ESG governance efforts of the management; formulating the share incentive plan; deciding on the Company’s external investment, purchase or sale of assets, equity and other capital operation plans within the scope of the authorization of general meeting, and convening general meetings and implementing the resolutions of general meetings, etc. Details of the functions of the Board are set out in the Articles of Association. Please refer to the “Articles of Association of Aluminum Corporation of China Limited” and the “Rules of Procedures for the Board of Directors of Aluminum Corporation of China Limited” under “Circulars and Announcements” on the page of “Investor Relations” on the website of the Company.

Report on Corporate Governance and Internal Control (Continued)

In 2022, the Board of the Company held a total of 14 meetings (including nine onsite meetings and five telecommunication meetings), and considered and approved 60 proposals. The details of the meetings are as follows:

Date of Meeting	Session	Convening Method	Resolution
2022.01.27	The 25th meeting of the seventh session of the Board	Telecommunication meeting	One resolution was considered and approved, namely the Resolution on the Convening of the 2022 First Extraordinary General Meeting, the 2022 First Class Meeting for A Shareholders and the 2022 First Class Meeting for H Shareholders
2022.03.22	The 26th meeting of the seventh session of the Board	On-site meeting	23 resolutions were considered and approved, including the resolutions on the 2021 annual report, annual working report of the Board, ESG report, annual profit distribution proposal, annual assessment report on internal control, auditing report on internal control, comprehensive risk management report, operating plan, financing plan, bond issuance plan, production guidance plan and investment plan for the year 2022, 2022 annual remuneration standards for the Company's Directors, Supervisors and senior management, re-engagement of accounting firm, guarantees, provision for asset impairment, change of accounting policy, change of chief financial officer and secretary to the Board, granting of general mandate to the Board to issue H shares and convening of annual general meeting
2022.04.06	The 27th meeting of the seventh session of the Board	Telecommunication meeting	One resolution was considered and approved, namely the Company's Resolution on the Adjustment to the 2021 Restricted Share Incentive Scheme (Draft) and its Summary and the Appraisal Management Measures for the Implementation
2022.04.26	The 28th meeting of the seventh session of the Board	On-site meeting	Three resolutions were considered and approved, including the resolutions on the 2022 first quarterly report, the nomination of candidates for Directors of the eighth session of the Board of the Company and the renewal of liability insurance for Directors, Supervisors and senior management for the year 2022-2023
2022.05.25	The 29th meeting of the seventh session of the Board	On-site meeting	Five resolutions were considered and approved, including the Resolution in relation to Relevant Matters on the Adjustment to the 2021 Restricted Share Incentive Scheme of the Company, the Resolution in relation to First Grant of Restricted Shares to Participants, the Resolution in relation to the Transaction of 50% Equity Interest in Inner Mongolia Huayun New Materials Co., Ltd., the Resolution in relation to the Transfer of 100% Equity Interest in Chalco Shandong Co., Ltd. and Chalco Zhongzhou Aluminum Co., Ltd. to Chalco New Materials Company Limited and the Resolution in relation to the Amendments to the Measures for Administration of Guarantees by Aluminum Corporation of China Limited

Report on Corporate Governance and Internal Control (Continued)

Date of Meeting	Session	Convening Method	Resolution
2022.06.21	The 1st meeting of the eighth session of the Board	On-site meeting	Eight resolutions were considered and approved, including the resolutions on the election of the chairman of the eighth session of the Board of the Company, the composition of the special committees under the eighth session of the Board, the amendments to the Articles of Association of Aluminum Corporation of China Limited, the Rules of Procedures for Shareholders' Meeting of Aluminum Corporation of China Limited and the Rules of Procedures for the Board Meeting of Aluminum Corporation of China Limited, the amendments to the detailed implementation rules for the special committees under the Board and related systems for securities business, the formulation of Administrative Measures for Performance Appraisal and Remuneration Distribution for Senior Management of Aluminum Corporation of China Limited and the Measures for Management of Total Wages of Aluminum Corporation of China Limited (Trial) and the convening of the Company's 2022 second extraordinary general meeting
2022.07.24	The 2nd meeting of the eighth session of the Board	On-site meeting	Three resolutions were considered and approved, including the Resolution in relation to the Proposed Acquisition of 19% Equity Interests in Yunnan Aluminum Co., Ltd. by the Company, the Resolution in relation to the Appointment of Joint Company Secretary of the Company and the Resolution in relation to Change of the Company's Authorised Person in the E-Submission System of the Hong Kong Stock Exchange
2022.08.12	The 3rd meeting of the eighth session of the Board	On-site meeting	One resolution was considered and approved, namely the Resolution in relation to the Company's Intention to Delist American Depositary Shares from the New York Stock Exchange and Intention to Deregister under the U.S. Securities Exchange Act
2022.08.23	The 4th meeting of the eighth session of the Board	On-site meeting	Five resolutions were considered and approved, including the resolutions on the Company's 2022 interim results report, the provision for asset impairment in the first half of 2022, the change of accounting policy, acquisition of 100% equity interests in Pingguo Aluminum Co., Ltd.* and the Report on the Continuous Assessment of the Risk of Chinalco Finance Co., Ltd. by Aluminum Corporation of China Limited
2022.09.29	The 5th meeting of the eighth session of the Board	On-site meeting	Two resolutions were considered and approved, including the Resolution in relation to the Company's Proposed Renewal Provision of Entrusted Loan for Inner Mongolia Huayun New Materials Co., Ltd. and the Resolution in relation to the Examination and Approval of the Qualification for Operation Entity of Financial Derivative Business of the Company and Certain Subsidiaries
2022.10.25	The 6th meeting of the eighth session of the Board	Telecommunication meeting	One resolution was considered and approved, namely the Resolution in relation to the 2022 Third Quarterly Report of the Company

Report on Corporate Governance and Internal Control (Continued)

Date of Meeting	Session	Convening Method	Resolution
2022.11.24	The 7th meeting of the eighth session of the Board	Telecommunication meeting	Two resolutions were considered and approved, including the Resolution on the Proposed Grant of Reserved Restricted Shares to Participants under the 2021 Restricted Share Incentive Scheme of the Company and the Resolution in relation to the Implementing Rules for the Enterprise Annuity Plan of Aluminum Corporation of China Limited
2022.12.10	The 8th meeting of the eighth session of the Board	On-site meeting	One resolution was considered and approved, namely the Resolution in relation to the Proposed Capital Contribution to Chinalco High-end Manufacturing Co., Ltd.* by the Company and Yunnan Aluminum Co., Ltd.
2022.12.28	The 9th meeting of the eighth session of the Board	Telecommunication meeting	Four resolutions were considered and approved, including the Resolution in relation to the Proposed Capital Contribution to Chalco New Materials Company Limited by the Company with Partial Debts, the Resolution in relation to the Application for Designated Delivery Warehouse Guarantee by China Aluminum Logistics Group Corporation Co., Ltd., the Resolution in relation to the Company's Proposed Provision of Letter of Guarantee for its Subsidiaries' Application of Alumina Futures Warehouse and the Resolution in relation to the Amendments to the Measures for Management of Authorisation of the Board of Directors of Aluminum Corporation of China Limited

In 2022, all resolutions submitted to the Board of the Company for consideration were passed without any objections or abstentions from Directors (including independent non-executive Directors).

The Company generally formulates the plans for the Board and general meetings and major topics of the meetings for the following year at the end of the previous year, and sends the meeting plans to all Directors to facilitate their schedule and ensure that each Director has the opportunity to raise matters for discussion and being included in the agenda of the Board meetings; for the matters which are required temporarily for consideration by the Board or the change of meeting time, the Company also communicates with and reports to the Directors in advance and agrees on the time and manner of holding the meetings so that each Director may attend all meetings as much as possible.

Before the Board meeting, the Company always sends the meeting documents and relevant materials to the Directors for their review in advance, and holds a briefing session to explain the resolutions and answer the Directors' concerns. In particular, the Company reports in details on matters that require the independent non-executive Directors' opinions, such as related party transactions, provision for impairment and guarantee matters, and arranges for intermediaries such as auditors and independent financial advisers to explain or provide opinions on periodic reports and significant related party transactions, so as to provide the Directors with a basis for decision-making.

Report on Corporate Governance and Internal Control (Continued)

When the Company holds a Board meeting, each Director may give full speeches and discussions on relevant resolutions as well as the Company's development strategies, major projects, Board construction, internal control and risk management, etc., and put forward their opinions and suggestions. The Company assigns relevant business departments to implement after summarizing the Directors' opinions, and provides feedback to the Board on the implementation and progress.

In addition to the above Board meetings, the Board of the Company convened and organised three general meetings, one class meeting for A shareholders and one class meeting for H shareholders in 2022. A total of 26 proposals were considered and approved, and no proposal was vetoed. Please refer to the "General Meeting" in this section for details about the general meetings.

In 2022, attendances of all Directors at the Board meetings were as follows:

Name of Director	Required attendance at Board meetings for the year (Note 1)	In-person attendance	Attendance by telecommunication (Note 2)	Attendance By proxy	Absence	Attendance rate of Board meetings (Note 3)
Liu Jianping	14	14	5	0	0	100%
Zhu Runzhou	14	14	5	0	0	100%
Ou Xiaowu	14	14	5	0	0	100%
Jiang Tao	14	14	5	0	0	100%
Zhang Jilong	14	14	5	0	0	100%
Wang Jun (resigned)	5	5	2	0	0	100%
Chen Pengjun	9	9	3	0	0	100%
Qiu Guanzhou	14	14	5	0	0	100%
Yu Jingsong	14	14	5	0	0	100%
Chan Yuen Sau Kelly	14	14	5	0	0	100%

Note 1: As far as the above table is concerned, required attendance at Board meetings for the year=in-person attendance+attendance by proxy.

Note 2: Attendance by telecommunication has been included in the required attendance at Board meetings for the year.

Note 3: Attendance rate of Board meetings=in-person attendance/required attendance at Board meetings for the year, but attendance by proxy shall not be counted.

Report on Corporate Governance and Internal Control (Continued)

In 2022, attendances of all Directors at the general meetings were as follows:

Name of Director	Required attendance at general meetings for the year <i>(Note 1)</i>	Actual attendance at general meetings	Required attendance at class meeting for A shareholders for the year <i>(Note 2)</i>	Actual attendance at class meeting for A shareholders	Required attendance at class meeting for H shareholders for the year <i>(Note 3)</i>	Actual attendance at class meeting for H shareholders
Liu Jianping	3	3	1	1	1	1
Zhu Runzhou	3	3	1	1	1	1
Ou Xiaowu	3	3	1	1	1	1
Jiang Tao	3	3	1	1	1	1
Zhang Jilong	3	3	1	1	1	1
Wang Jun (resigned)	2	1	1	1	1	1
Chen Pengjun	2	2	0	0	0	0
Qiu Guanzhou	3	3	1	1	1	1
Yu Jingsong	3	3	1	1	1	1
Chan Yuen Sau Kelly	3	3	1	1	1	1

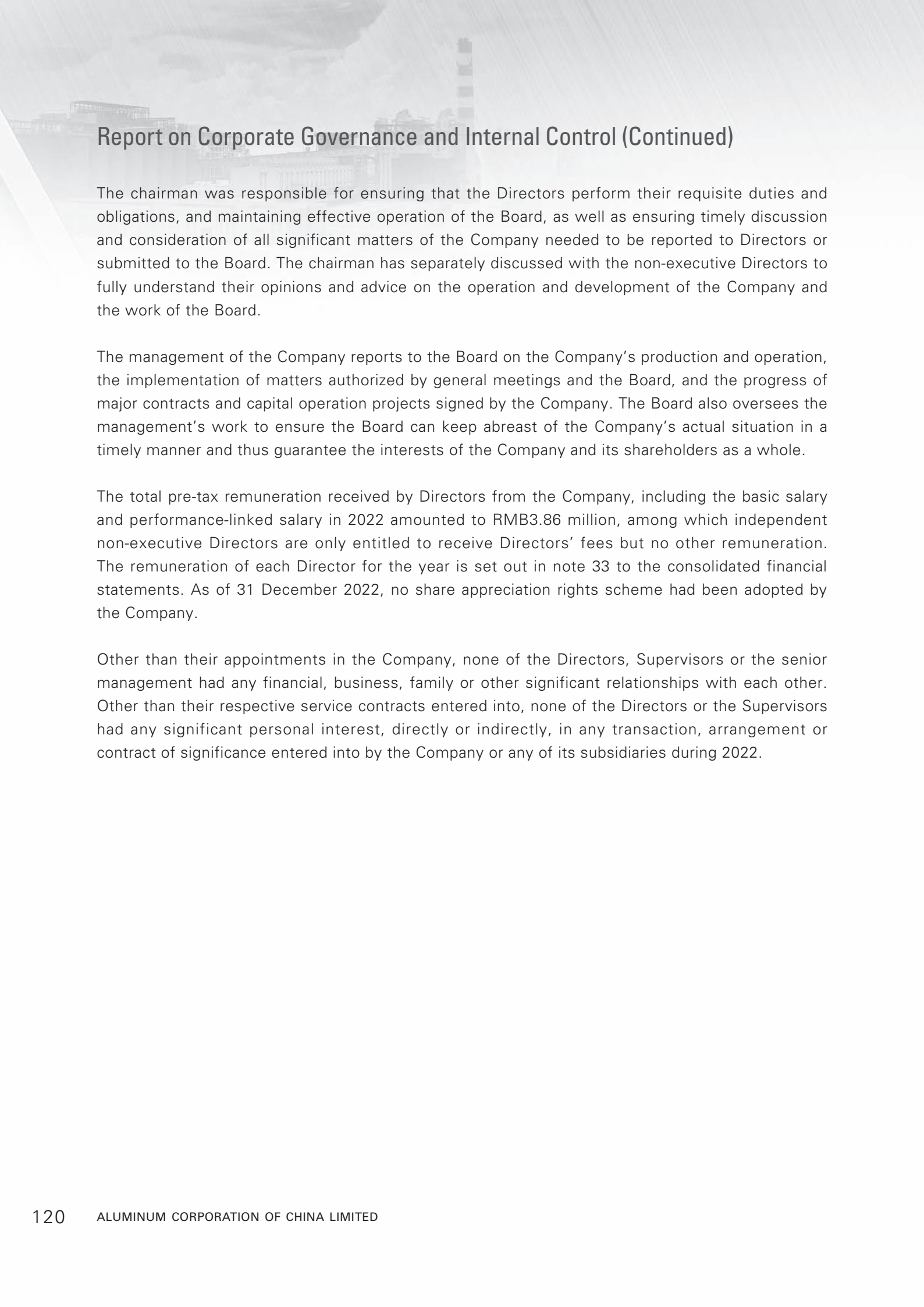
Note 1: The general meetings held by the Company in 2022 includes the 2022 first extraordinary general meeting held on 26 April 2022, the 2021 annual general meeting held on 21 June 2022 and the 2022 second extraordinary general meeting held on 29 September 2022, a total of three times.

Note 2: The class meeting for A shareholders held by the Company in 2022 includes the 2022 first class meeting for A shareholders held on 26 April 2022, a total of one time.

Note 3: The class meeting for H shareholders held by the Company in 2022 includes the 2022 first class meeting for H shareholders held on 26 April 2022, a total of one time.

During the reporting period, the attendances of all Directors at the Board meetings and the general meetings are explained as follows:

1. Mr. Wang Jun resigned as the non-executive Director of the Company on 21 June 2022. During the period from 1 January 2022 to his resignation, Mr. Wang Jun attended all five Board meetings and the 2022 first extraordinary general meeting of the Company, the 2022 first class meeting for A shareholders and the 2022 first class meeting for H shareholders convened on 26 April 2022, but did not attend the 2021 annual general meeting of the Company convened on 21 June 2022 due to other business.
2. Mr. Chen Pengjun has been appointed as the non-executive Director of the Company since 21 June 2022. From the commencement of his appointment to the end of the reporting period, Mr. Chen Pengjun attended all nine Board meetings and the 2022 second extraordinary general meeting of the Company convened on 29 September 2022. In addition, Mr. Chen Pengjun attended the 2021 annual general meeting of the Company convened on 21 June 2022 as a candidate for Director.



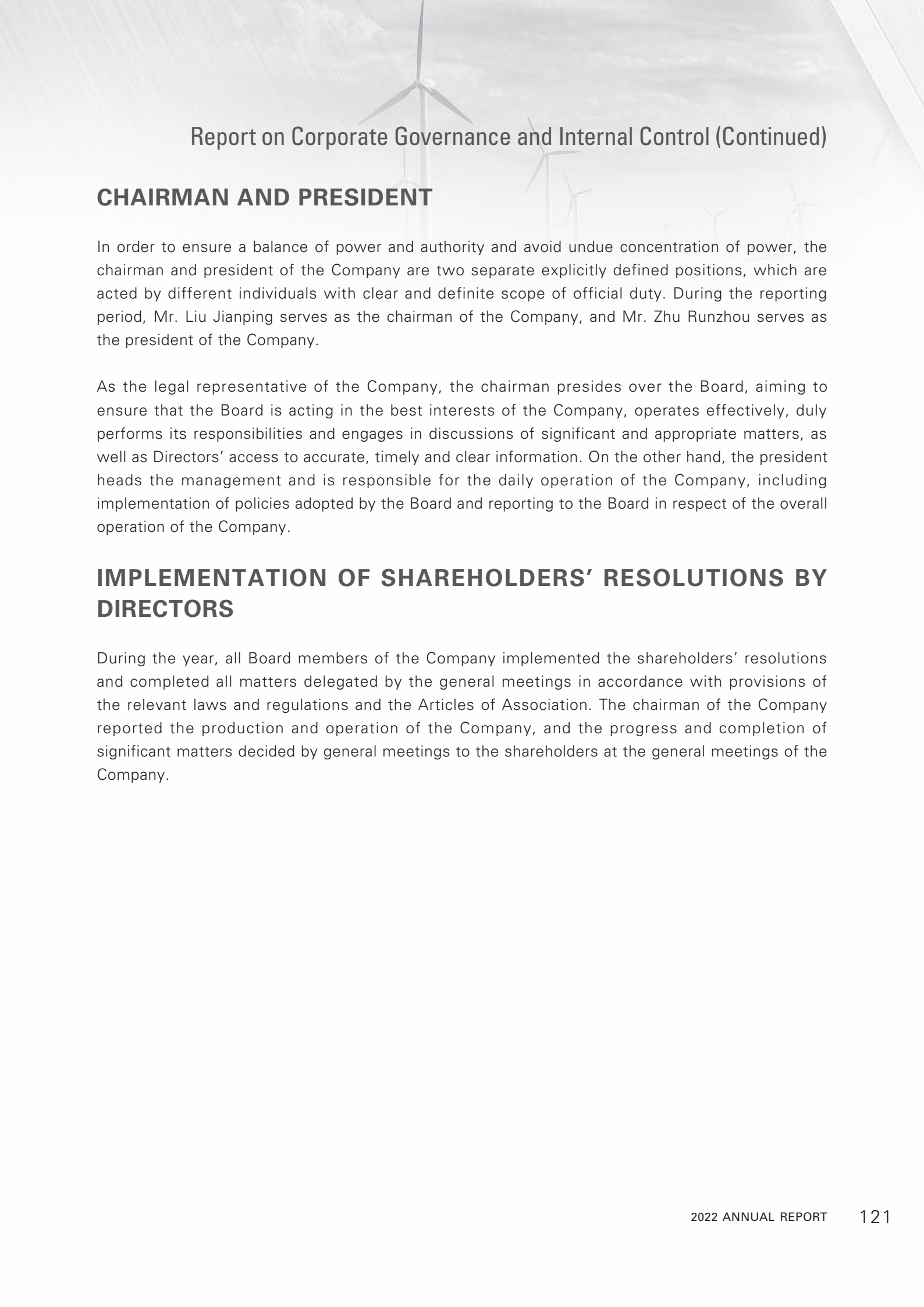
Report on Corporate Governance and Internal Control (Continued)

The chairman was responsible for ensuring that the Directors perform their requisite duties and obligations, and maintaining effective operation of the Board, as well as ensuring timely discussion and consideration of all significant matters of the Company needed to be reported to Directors or submitted to the Board. The chairman has separately discussed with the non-executive Directors to fully understand their opinions and advice on the operation and development of the Company and the work of the Board.

The management of the Company reports to the Board on the Company's production and operation, the implementation of matters authorized by general meetings and the Board, and the progress of major contracts and capital operation projects signed by the Company. The Board also oversees the management's work to ensure the Board can keep abreast of the Company's actual situation in a timely manner and thus guarantee the interests of the Company and its shareholders as a whole.

The total pre-tax remuneration received by Directors from the Company, including the basic salary and performance-linked salary in 2022 amounted to RMB3.86 million, among which independent non-executive Directors are only entitled to receive Directors' fees but no other remuneration. The remuneration of each Director for the year is set out in note 33 to the consolidated financial statements. As of 31 December 2022, no share appreciation rights scheme had been adopted by the Company.

Other than their appointments in the Company, none of the Directors, Supervisors or the senior management had any financial, business, family or other significant relationships with each other. Other than their respective service contracts entered into, none of the Directors or the Supervisors had any significant personal interest, directly or indirectly, in any transaction, arrangement or contract of significance entered into by the Company or any of its subsidiaries during 2022.

The background of the page features a grayscale image of several wind turbines. One turbine is prominently visible in the upper left, with its blades extending towards the top of the frame. Other turbines are visible in the distance, creating a sense of depth. The overall tone is professional and modern.

Report on Corporate Governance and Internal Control (Continued)

CHAIRMAN AND PRESIDENT

In order to ensure a balance of power and authority and avoid undue concentration of power, the chairman and president of the Company are two separate explicitly defined positions, which are acted by different individuals with clear and definite scope of official duty. During the reporting period, Mr. Liu Jianping serves as the chairman of the Company, and Mr. Zhu Runzhou serves as the president of the Company.

As the legal representative of the Company, the chairman presides over the Board, aiming to ensure that the Board is acting in the best interests of the Company, operates effectively, duly performs its responsibilities and engages in discussions of significant and appropriate matters, as well as Directors' access to accurate, timely and clear information. On the other hand, the president heads the management and is responsible for the daily operation of the Company, including implementation of policies adopted by the Board and reporting to the Board in respect of the overall operation of the Company.

IMPLEMENTATION OF SHAREHOLDERS' RESOLUTIONS BY DIRECTORS

During the year, all Board members of the Company implemented the shareholders' resolutions and completed all matters delegated by the general meetings in accordance with provisions of the relevant laws and regulations and the Articles of Association. The chairman of the Company reported the production and operation of the Company, and the progress and completion of significant matters decided by general meetings to the shareholders at the general meetings of the Company.

Report on Corporate Governance and Internal Control (Continued)

DIRECTOR'S RECEIPT OF THE COMPANY'S INFORMATION AND TRAINING

The Company's Board Office is the routine executive organ of the Board, and offers services to the Board and Directors. The Board Office sends a monthly "Directors' Newsletter" to all Directors to report on the main production and operation of the Company, the market situation of the industry, the performance of the Company's share price, the progress of key projects and the management dynamics, etc., so as to enable Directors to have a comprehensive understanding of the latest situation of the Company; organises external Directors to conduct corporate research activities every year to gain an in-depth understanding of the current situation, key issues, development strategies and plans of the Company through on-site visits or online research; checks the latest amendments to the laws, regulations and regulatory rules of securities to ensure that the Directors, Supervisors and senior management of the Company are able to fulfill their duties in accordance with laws and regulations; organises Directors, Supervisors and senior management of the Company to participate in relevant securities business training to ensure that they obtain the corresponding qualifications and complete the annual training plan as required. Affected by the COVID-19 pandemic, most of the trainings in 2022 were conducted online.

In 2022, Mr. Liu Jianping, the chairman of the Company, Mr. Ou Xiaowu, Mr. Jiang Tao and Mr. Zhang Jilong, the Directors of the Company, and Ms. Lin Ni and Ms. Xu Shuxiang, the Supervisors of the Company, participated in the 2022 Directors, Supervisors and Senior Management Training held by the SSE; Directors Mr. Zhu Runzhou and Mr. Chen Pengjun, and Supervisors Ms. Shan Shulan and Mr. Yue Xuguang participated in the 2022 Annual Special Training for Directors and Supervisors of Listed Companies in Beijing held by Beijing Securities Regulatory Bureau; Mr. Yu Jinsong, the independent non-executive Director, participated in the 5th Follow-up Training for Independent Directors of Listed Companies on SSE Main Board in 2022; Mr. Ye Guohua, the chairman of the Supervisory Committee, participated in the 2022 Seminar for Chairman of the Supervisory Committee of China Association for Public Companies; Mr. Ge Xiaolei, the new secretary to the Board of the Company, participated in the 146th Qualification Training for the Secretary to the Board of the SSE Main Board and the 6th Follow-up Training for the Secretary to the Board in 2022; Mr. Ge Xiaolei, secretary to the Board, and Mr. Gao Lidong, representative for securities related affairs, participated in the 64th Seminar on Enhancing Continuing Professional Development for Corporate Governance Professionals of The Hong Kong Chartered Governance Institute (Special Training for Directors and Supervisors); and Mr. Qiu Guanzhou, an independent non-executive Director of the Company, participated in the 127th Training Course for Independent Directors of Listed Companies in Shenzhen Stock Exchange. Moreover, the Company invited PwC's ESG information disclosure and advisory team and Jincheng Tongda & Neal Law Firm, the Company's domestic legal adviser, to conduct training for the Directors, Supervisors and senior management of the Company on ESG development trends and corporate responses, as well as matters needing attention from directors, supervisors and senior management of listed companies in performing their duties in September and December 2022, respectively.

Report on Corporate Governance and Internal Control (Continued)

In November 2022, the Company organised external Directors to conduct online research on Yunnan Aluminum, which was newly merged into the Company, by way of video conference. The management of Yunnan Aluminum reported to the external Directors on the basic situation, production and operation in recent years, key work, future industrial planning, development initiatives, etc. of Yunnan Aluminum and its subsidiaries. This research not only helped the external Directors of the Company have a more comprehensive understanding of the production and operation of Yunnan Aluminum, but also provided valuable suggestions for the subsequent development of Yunnan Aluminum with the help of abundant professional experience of the external Directors.

During the reporting period, training for all Directors of the Company is as follows:

Name of Director	Training ^(Note)
Liu Jianping	A, B, C
Zhu Runzhou	A, B, C
Ou Xiaowu	A, B, C
Jiang Tao	A, B, C
Zhang Jilong	A, B, C
Wang Jun (resigned)	B
Chen Pengjun	A, B, C
Qiu Guanzhou	A, B, C
Yu Jingsong	A, B, C
Chan Yuen Sau Kelly	B, C

Notes:

- A. Training for directors, supervisors and senior management organised by the Securities Regulatory Authorities
- B. Self-study on the domestic and foreign securities laws and regulations
- C. Participation in trainings organized by other domestic and foreign institutions

Report on Corporate Governance and Internal Control (Continued)

FUNCTIONS OF CORPORATE GOVERNANCE OF THE BOARD

The followings are corporate governance functions performed by the Board which were implemented by the special committees thereof:

- (a) Formulation and review of the policies and practice on corporate governance of the Company;
- (b) Review and supervision on the training and continuous professional development of the Directors and senior management;
- (c) Review and supervision on the policies and practice of the Company in compliance with laws and regulatory requirements;
- (d) Review and supervision on the ESG governance related work of the Company;
- (e) Formulation, review and supervision on the compliance of employees and Directors with applicable Code of Conduct and Compliance Manual; and
- (f) Review of the compliance of the Company with the CG Code and Corporate Governance Report under Appendix 14 to the Hong Kong Listing Rules. The Board had supervised and reviewed the implementation of the corporate governance policies of the Company, updated and prepared documents related to the internal control of the Group as well as analyzed the compliance of the Company with the CG Code in 2022. It convened 14 Board meetings, three general meetings, one class meeting for A shareholders and one class meeting for H shareholders, and completed relevant training for the Directors, Supervisors and senior management. The Board also supervised and inspected the implementation of the Board's resolutions by the management, and further enhanced initiatives such as the management of the investor relations.

AUDIT COMMITTEE

The Audit Committee has been established under the Board of the Company, the duties of which mainly include reviewing the financial reports, internal and external audits, internal control, risk management, corporate governance of the Company, considering the appointment of independent auditors and approving audit and audit-related services, and supervising the Company's internal financial reporting procedures and management policies.



Report on Corporate Governance and Internal Control (Continued)

Pursuant to Rule 3.21 of the Hong Kong Listing Rules, the Audit Committee of the Board of the Company consists of three independent non-executive Directors, including a financial expert. During the reporting period, the Audit Committee of the seventh session of the Board of the Company consisted of three independent non-executive Directors, Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly. Ms. Chan Yuen Sau Kelly served as the chairman of the committee and the financial expert. On 21 June 2022, the first meeting of the eighth session of the Board of the Company considered and approved the Resolution in relation to Composition of Special Committees under the Eighth Session of the Board of the Company, and the composition and chairman of the Audit Committee of the eighth session of the Board remained unchanged.

The Company has established work procedures for the Audit Committee for the performance of its supervisory role in auditing of the annual report. Before the external auditors commenced their annual audit, the Audit Committee reviewed the Company's financial position and coordinated with the external auditors about audit timetable for the year. Throughout the audit by the external auditors, the Audit Committee maintained communications with them at all time and ensured completion of audit within the designated timetable. The Audit Committee reviewed the financial report of the Company after the external auditors issued their preliminary audit opinions and passed a written resolution to submit the audited financial report to the Board of the Company for review.

The Audit Committee and the management discussed the risk management and internal control systems of the Company, so as to make sure that effective risk management and internal control systems have been established, which included considering whether the Company had sufficient resources with qualified and experienced staff to perform accounting, internal auditing and financial reporting duties, and whether relevant staff were well trained and the relevant budget was sufficient. The Audit Committee is of the view that the Company had complied with the requirements of the above corporate risk management and internal control systems during 2022.

In 2022, the Audit Committee of the Board of the Company held a total of nine meetings attended by all members of the committee. All meetings were convened and held in accordance with the relevant provisions of the "Working Rules of the Audit Committee of the Board of Directors of Aluminum Corporation of China Limited", at which the Company's periodic financial reports, internal control, risk assessment, internal and external audit work, anti-fraud work, related-party transactions, provision for impairment of assets, change of accounting policy and other relevant important matters were reviewed and considered. All members of the committee had performed their duties diligently and earnestly, and provided their views and recommendations on the Company's financial reporting, internal control, risk management, auditing, and related-party transactions on an independent, objective, and fair basis.

Minutes of each meeting of the Audit Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

Report on Corporate Governance and Internal Control (Continued)

REMUNERATION COMMITTEE

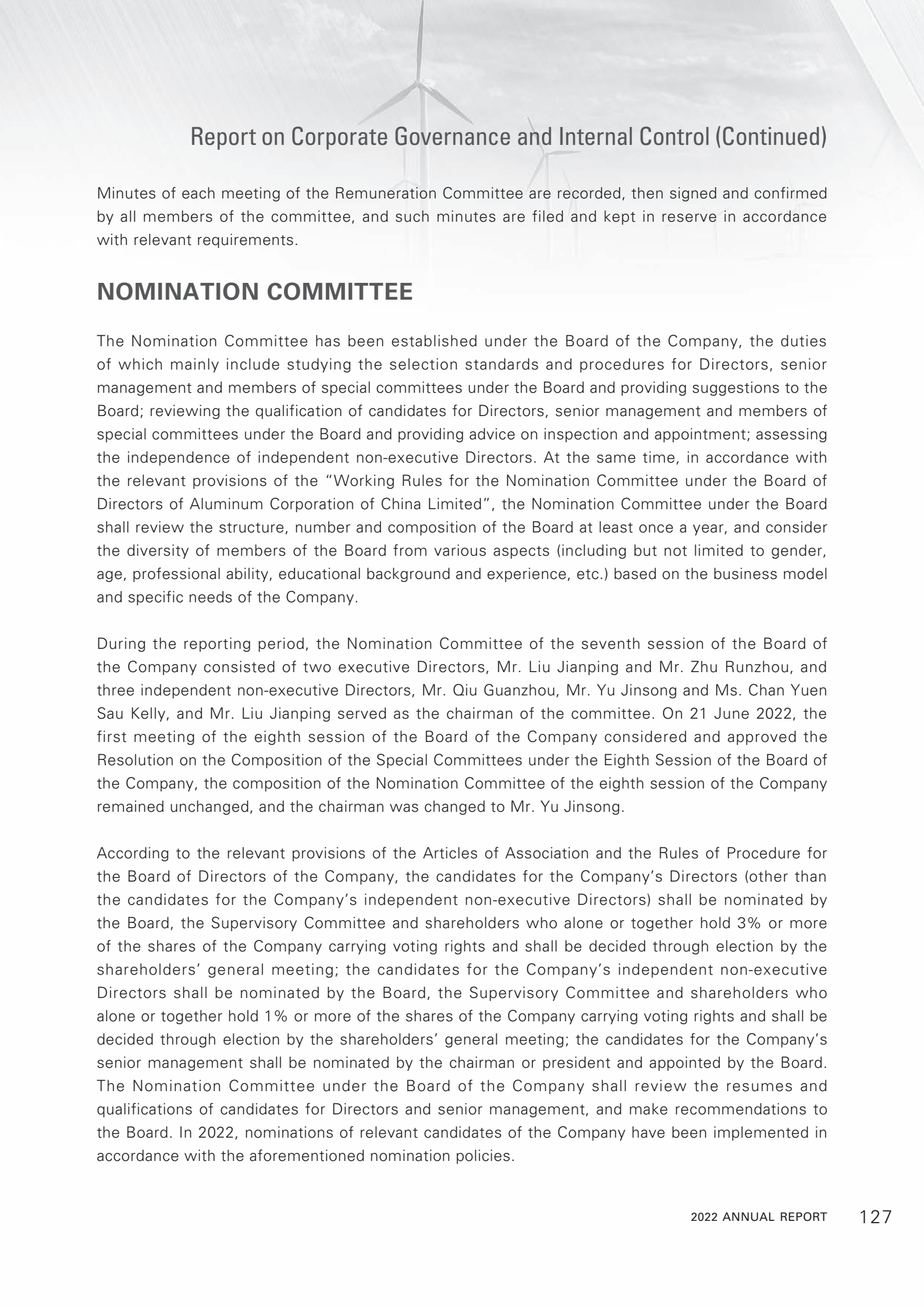
The Remuneration Committee has been established under the Board of the Company, the duties of which mainly include preparing the remuneration management scheme and remuneration proposal for Directors, employee representative Supervisors and senior management, and providing suggestions to the Board; preparing measures on performance evaluation, performance assessment procedures and relevant rewards and punishments of senior management, and providing suggestions to the Board; monitoring the implementation of the remuneration system of the Company; reviewing senior management's fulfillment of duties and conducting performance assessment.

During the reporting period, the Remuneration Committee of the seventh session of the Board of the Company consisted of one non-executive Director Mr. Zhang Jilong, and two independent non-executive Directors, Mr. Qiu Guanzhou and Mr. Yu Jinsong. Mr. Qiu Guanzhou served as the chairman of the committee. On 21 June 2022, the first meeting of the eighth session of the Board of the Company considered and approved the Resolution in relation to Composition of Special Committees under the Eighth Session of the Board of the Company, and the composition and chairman of the Remuneration Committee of the eighth session of the Board remained unchanged.

In 2022, the Remuneration Committee of the Board of the Company held a total of two meetings, the particulars are as follows:

On 21 March 2022, the 4th meeting of the seventh session of the Remuneration Committee of the Company considered and approved the proposal on formulating the remuneration standards for Directors, Supervisors and senior management of the Company for 2022. All members of the Remuneration Committee had carefully studied the remuneration plan on Directors, Supervisors and senior management and were of view that the remuneration plan made by the Company was in line with the remuneration policy of the Company with reference to the remuneration for same positions of comparable enterprises (in terms of the size, industry and nature). Meanwhile, it was also based on the annual operation results of the Company, the performance of Directors and Supervisors and the performance appraisal results of senior management and was fair and reasonable. They agreed to submit the remuneration plan to the Board. The Board of the Company finally adopted the remuneration standard plan submitted by the Remuneration Committee.

On 21 June 2022, the 1st meeting of the eighth session of the Remuneration Committee of the Company considered and approved the resolution on formulating the Administrative Measures for Assessment and Evaluation and Salary Distribution of Senior Management of Aluminum Corporation of China Limited. All members of the Remuneration Committee believed that the management method of senior management assessment and compensation distribution formulated by the Company was in line with the Company's compensation distribution policies and principles, and the assessment and evaluation method was fair and reasonable, and in line with the actual situation of the Company.



Report on Corporate Governance and Internal Control (Continued)

Minutes of each meeting of the Remuneration Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

NOMINATION COMMITTEE

The Nomination Committee has been established under the Board of the Company, the duties of which mainly include studying the selection standards and procedures for Directors, senior management and members of special committees under the Board and providing suggestions to the Board; reviewing the qualification of candidates for Directors, senior management and members of special committees under the Board and providing advice on inspection and appointment; assessing the independence of independent non-executive Directors. At the same time, in accordance with the relevant provisions of the “Working Rules for the Nomination Committee under the Board of Directors of Aluminum Corporation of China Limited”, the Nomination Committee under the Board shall review the structure, number and composition of the Board at least once a year, and consider the diversity of members of the Board from various aspects (including but not limited to gender, age, professional ability, educational background and experience, etc.) based on the business model and specific needs of the Company.

During the reporting period, the Nomination Committee of the seventh session of the Board of the Company consisted of two executive Directors, Mr. Liu Jianping and Mr. Zhu Runzhou, and three independent non-executive Directors, Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly, and Mr. Liu Jianping served as the chairman of the committee. On 21 June 2022, the first meeting of the eighth session of the Board of the Company considered and approved the Resolution on the Composition of the Special Committees under the Eighth Session of the Board of the Company, the composition of the Nomination Committee of the eighth session of the Company remained unchanged, and the chairman was changed to Mr. Yu Jinsong.

According to the relevant provisions of the Articles of Association and the Rules of Procedure for the Board of Directors of the Company, the candidates for the Company’s Directors (other than the candidates for the Company’s independent non-executive Directors) shall be nominated by the Board, the Supervisory Committee and shareholders who alone or together hold 3% or more of the shares of the Company carrying voting rights and shall be decided through election by the shareholders’ general meeting; the candidates for the Company’s independent non-executive Directors shall be nominated by the Board, the Supervisory Committee and shareholders who alone or together hold 1% or more of the shares of the Company carrying voting rights and shall be decided through election by the shareholders’ general meeting; the candidates for the Company’s senior management shall be nominated by the chairman or president and appointed by the Board. The Nomination Committee under the Board of the Company shall review the resumes and qualifications of candidates for Directors and senior management, and make recommendations to the Board. In 2022, nominations of relevant candidates of the Company have been implemented in accordance with the aforementioned nomination policies.

Report on Corporate Governance and Internal Control (Continued)

In 2022, the Nomination Committee of the Board held three meetings attended by all members of the committee, at which the resolutions on the nomination of candidates for chief financial officer and the secretary to the Board, the nomination of candidates for Directors (including independent non-executive Directors) of the eighth session of the Board of the Company, and the nomination of candidates for members of each special committee of the eighth session of the Board of the Company were considered and approved, and such nomination of candidates was submitted to the Board for consideration.

Minutes of each meeting of the Nomination Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.

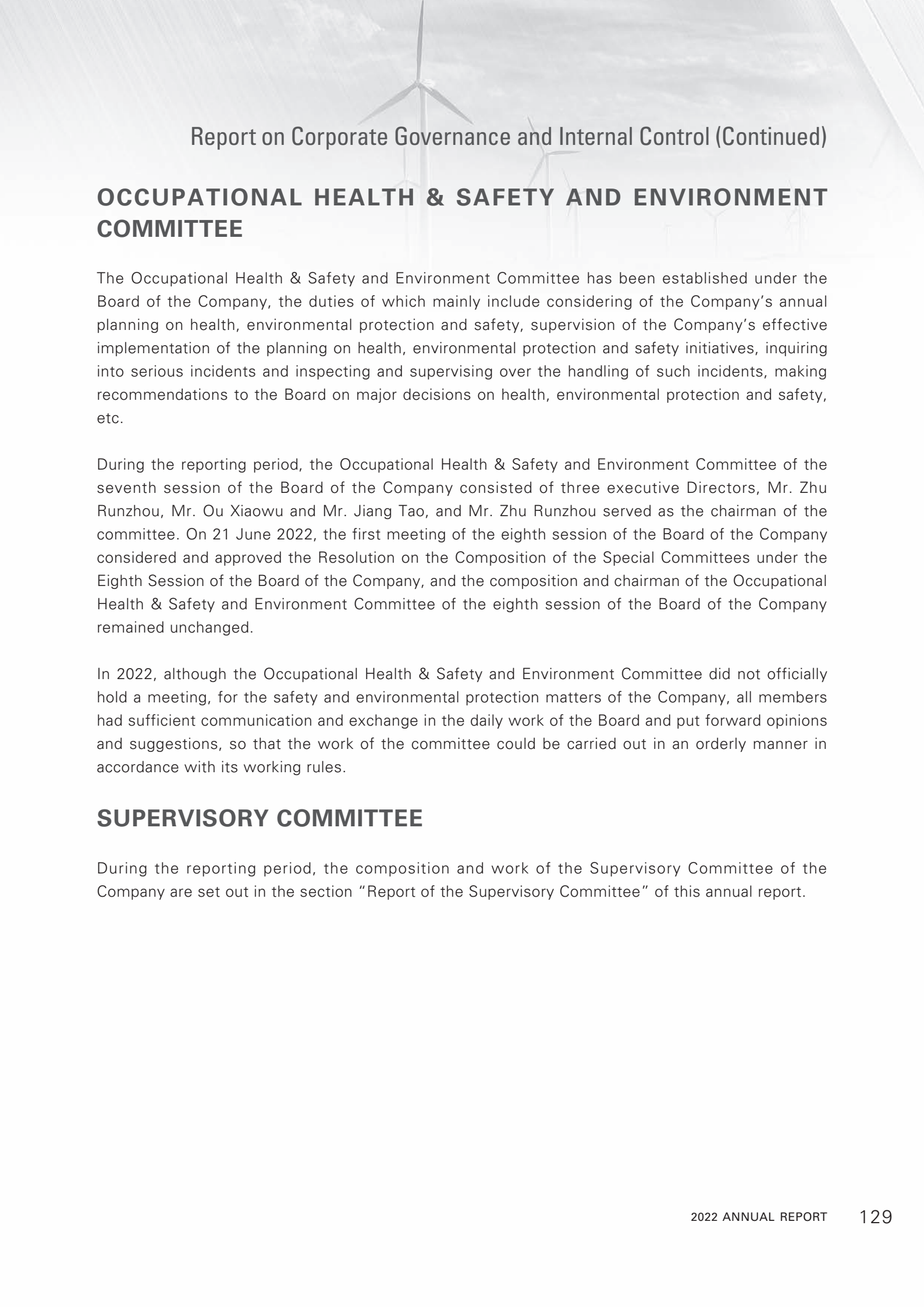
DEVELOPMENT AND PLANNING COMMITTEE

The Development and Planning Committee has been established under the Board of the Company, the duties of which mainly include reviewing and evaluating the Company's long-term development strategy, financial budget, investment, business operation and strategic plan of annual investment returns.

During the reporting period, the Development and Planning Committee of the seventh session of the Board of the Company consisted of two executive Directors, Mr. Liu Jianping and Mr. Zhu Runzhou, one non-executive Director, Mr. Zhang Jilong, and two independent non-executive Directors, Mr. Qiu Guanzhou and Mr. Yu Jinsong, and Mr. Liu Jianping served as the chairman of the committee. On 21 June 2022, the first meeting of the eighth session of the Board of the Company considered and approved the Resolution on the Composition of the Special Committees under the Eighth Session of the Board of the Company. The Development and Planning Committee of the eighth session of the Board consisted of two executive Directors, Mr. Liu Jianping and Mr. Zhu Runzhou, two non-executive Directors, Mr. Zhang Jilong and Mr. Chen Pengjun, and one independent non-executive Director, Mr. Qiu Guanzhou, and Mr. Liu Jianping served as the chairman of the committee.

In 2022, the Development and Planning Committee of the Board held one meeting attended by all members of the committee, at which the production guidance plan for 2022, the annual investment plan for 2022 and the operating plan for 2022 were considered and approved by the committee and then submitted to the Board for consideration.

Minutes of each meeting of the Development and Planning Committee are recorded, then signed and confirmed by all members of the committee, and such minutes are filed and kept in reserve in accordance with relevant requirements.



Report on Corporate Governance and Internal Control (Continued)

OCCUPATIONAL HEALTH & SAFETY AND ENVIRONMENT COMMITTEE

The Occupational Health & Safety and Environment Committee has been established under the Board of the Company, the duties of which mainly include considering of the Company's annual planning on health, environmental protection and safety, supervision of the Company's effective implementation of the planning on health, environmental protection and safety initiatives, inquiring into serious incidents and inspecting and supervising over the handling of such incidents, making recommendations to the Board on major decisions on health, environmental protection and safety, etc.

During the reporting period, the Occupational Health & Safety and Environment Committee of the seventh session of the Board of the Company consisted of three executive Directors, Mr. Zhu Runzhou, Mr. Ou Xiaowu and Mr. Jiang Tao, and Mr. Zhu Runzhou served as the chairman of the committee. On 21 June 2022, the first meeting of the eighth session of the Board of the Company considered and approved the Resolution on the Composition of the Special Committees under the Eighth Session of the Board of the Company, and the composition and chairman of the Occupational Health & Safety and Environment Committee of the eighth session of the Board of the Company remained unchanged.

In 2022, although the Occupational Health & Safety and Environment Committee did not officially hold a meeting, for the safety and environmental protection matters of the Company, all members had sufficient communication and exchange in the daily work of the Board and put forward opinions and suggestions, so that the work of the committee could be carried out in an orderly manner in accordance with its working rules.

SUPERVISORY COMMITTEE

During the reporting period, the composition and work of the Supervisory Committee of the Company are set out in the section "Report of the Supervisory Committee" of this annual report.

Report on Corporate Governance and Internal Control (Continued)

GENERAL MEETING

General meeting is the highest authority of the Company. It provides a good opportunity for direct communications and building a sound relationship between the shareholders of the Company and the Board and senior management. During the reporting period, the Company held a total of three general meetings, one class meeting for A shareholders and one class meeting for H shareholders, at which 26 resolutions were considered and approved. The details of the meeting are as follows:

Date of Meeting	Session	Resolution
2022.04.26	2022 first extraordinary general meeting	Four resolutions were considered and approved, including the resolutions on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary and the Appraisal Management Measures for the Implementation, the Authorization to the Board to Handle Relevant Matters on the 2021 Restricted Share Incentive Scheme of the Company and the Grant of Restricted Shares to Connected Persons of the Company under the Listing Rules of Hong Kong Stock Exchange in respect of the 2021 Restricted Share Incentive Scheme of the Company
	2022 first class meeting for A shareholders	Three resolutions were considered and approved, including the resolutions on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary and the Appraisal Management Measures for the Implementation and Authorization to the Board to Handle Relevant Matters on the 2021 Restricted Share Incentive Scheme of the Company
	2022 first class meeting for H shareholders	Three resolutions were considered and approved, including the resolutions on the 2021 Restricted Share Incentive Scheme (Draft) and its Summary and the Appraisal Management Measures for the Implementation and Authorization to the Board to Handle Relevant Matters on the 2021 Restricted Share Incentive Scheme of the Company
2022.06.21	2021 annual general meeting	13 resolutions were considered and approved, including resolutions on the 2021 annual work report of the Board, annual work report of the Supervisory Committee, auditors' Report and financial report, annual profit distribution proposal, 2022 annual remuneration standards for the Company's Directors and Supervisors, re-engagement of accounting firm, 2022 annual bond issuance plan, guarantees, grant of general mandate to the Board to issue H shares, and election of Directors (including independent non-executive Directors) of the eighth session of the Board and shareholder representative Supervisors of the eighth session of the Supervisory Committee of the Company
2022.09.29	2022 second extraordinary general meeting	Three resolutions were considered and approved, including the resolutions on the proposed acquisition of 19% equity interests in Yunnan Aluminum Co., Ltd. by the Company, the proposed acquisition of 100% equity interests in Pingguo Aluminum Co., Ltd.* and the amendments to the Articles of Association of Aluminum Corporation of China Limited, the Rules of Procedures for Shareholders' Meeting of Aluminum Corporation of China Limited and the Rules of Procedures for the Board Meeting of Aluminum Corporation of China Limited

Note: During the reporting period, all general meetings were held in the conference room at Headquarters of the Company, No. 62 North Xizhimen Street, Beijing.

During the reporting period, the convening, holding and voting procedures for each general meeting of the Company were in compliance with relevant laws, regulations and the Articles of Association. All the resolutions submitted at the general meetings were passed and the voting results were legal and valid.

Report on Corporate Governance and Internal Control (Continued)

EXTRAORDINARY GENERAL MEETING

According to the Articles of Association of the Company, a single shareholder or any two or more shareholders together holding more than 10% of the Company's issued shares is (are) entitled to request an extraordinary general meeting or class meeting to be convened. Such requests must specify the topics of the meeting in writing and must be submitted to the convener, the contact information of whom is set out in the section entitled "Enquiry to the Board" in this chapter. Shareholders shall follow the Rules of Procedures for the Shareholders' Meetings of Aluminum Corporation of China Limited set out in the "Circulars and Announcements" under the section of "Investor Relations" on the website of the Company.

PROPOSALS AT THE GENERAL MEETING

According to the Articles of Association of the Company, a single shareholder or any two or more shareholders together holding more than 3% of the Company's issued shares is (are) entitled to submit additional proposals to the convener by written request ten working days prior to the relevant general meeting. The contact information of the convener is set out in the section entitled "Enquiry to the Board" in this chapter. Shareholders shall follow the Rules of Procedures for the Shareholders' Meeting of Aluminum Corporation of China Limited set out in the "Circulars and Announcements" under the section of "Investor Relations" on the website of the Company.

ENQUIRY TO THE BOARD

For any enquiry to the Board, please contact the Board Office at 14/F, Chalco Building, No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (email: IR@chalco.com.cn).

THE COMPANY SECRETARY AND TRAININGS

The company secretary is responsible for organizing and completing procedures relating to Board meetings and general meetings, coordinating and arranging information disclosure, dealing with investor relations and helping maintain smooth communications among the management, Directors and shareholders. During the reporting period, Mr. Wang Jun, the former company secretary of the Company, resigned on 24 July 2022. Approved by the Hong Kong Stock Exchange, and considered and approved by the second meeting of the eighth session of the Board of the Company held on 24 July 2022, the Company appointed Mr. Ge Xiaolei and Ms. Ng Ka Man as the joint company secretaries of the Company. Mr. Ge Xiaolei is a full-time employee of the Company, and Ms. Ng Ka Man is a member of the Hong Kong Corporate Governance Institute (formerly known as the Hong Kong Institute of Chartered Secretaries) and the UK Chartered Corporate Governance Institute (formerly known as the Institute of Chartered Secretaries and Administrators), and has obtained the qualification for the secretary to the Board of Directors of the Shanghai Stock Exchange. During the reporting period, Mr. Ge Xiaolei and Ms. Ng Ka Man have completed no less than 15 hours of relevant professional trainings.

Report on Corporate Governance and Internal Control (Continued)

INVESTOR RELATIONS

The Company attaches great importance to the work of investor relations and has formulated the Measures for the Management of Investor Relations of Aluminum Corporation of China Limited, which stipulates the principles to be followed in the work of investor relations of the Company, the organization, work content and implementation norms of the work of investor relations, as well as the code of conduct and requirements for the staff of investor relations. The chairman of the Company takes primary responsibility for investor relationship management, the secretary to the Board (joint company secretary) takes specific responsible for investment relationship management, and the Office of the Board designates a person in charge of specific investor relationship affairs. In 2022, the Company realized effective communication and exchanges with investors through various forms such as on-site, telephone, online video conferences, and the SSE E-interactive platform. The Company's senior management also participated in performance roadshow meetings and other important investor relations activities for many times. The Company held a total of 57 investors' meetings throughout the year, attracting 1,132 investors and analysts. In particular, 177 investment institutions and 268 investors/analysts attended the Company's 2021 annual results presentation, 2022 first quarterly results presentation, 2022 interim results presentation and 2022 third quarterly results presentation; the Company held 31 investors' meetings for 2021 annual and 2022 interim results roadshows, attracting 637 investors/analysts; the Company answered more than 1,200 telephone calls from investors and answered 119 various questions raised by investors through the SSE E-interactive platform. Moreover, the Company convened 2021 annual results and cash dividend briefing, 2022 interim results briefing and 2022 third quarterly results briefing on 29 April 2022, 2 September 2022 and 18 November 2022, respectively, through the SSE Roadshow Center platform of SSE to answer investors' questions online.

The Company treats each shareholder equally, ensures the fairness, completeness and timeliness of information disclosure, and releases the information through the website of the exchange, the Company's website and newspaper media, so that each shareholder may have equal and timely access to the Company's information. The Company endeavours to create conditions for shareholders, especially small and medium-sized shareholders, to participate in the general meetings, gives due consideration to the time and venue of the general meetings, handles the registration of shareholders through various means, provides shareholders with detailed information and materials for meetings, and promptly resolves any problems encountered by shareholders in attending general meetings. The Company maintains open communication channels with shareholders, who may communicate with the Company in a timely and convenient manner through the special telephone and email for investor relations, the SSE E-interactive platform, etc.



Report on Corporate Governance and Internal Control (Continued)

Through the above efforts, the Company has strengthened its communication with investors, won the recognition from domestic and overseas investors, analysts and public investors, and consolidated the Company's influence in the capital market. The Company's investor relations practice cases were selected into the "Compilation of Excellent Practice Cases of Investor Relations Management of Beijing Public Companies" sponsored by Beijing Association for Public Companies.

The Company has reviewed the implementation of the Company's shareholders' communication policy in 2022. Considering the abovementioned communication channels of the investors, the measures taken and the activities held by the Company, the Company considers that the shareholders' communication policy in 2022 has been effectively implemented.

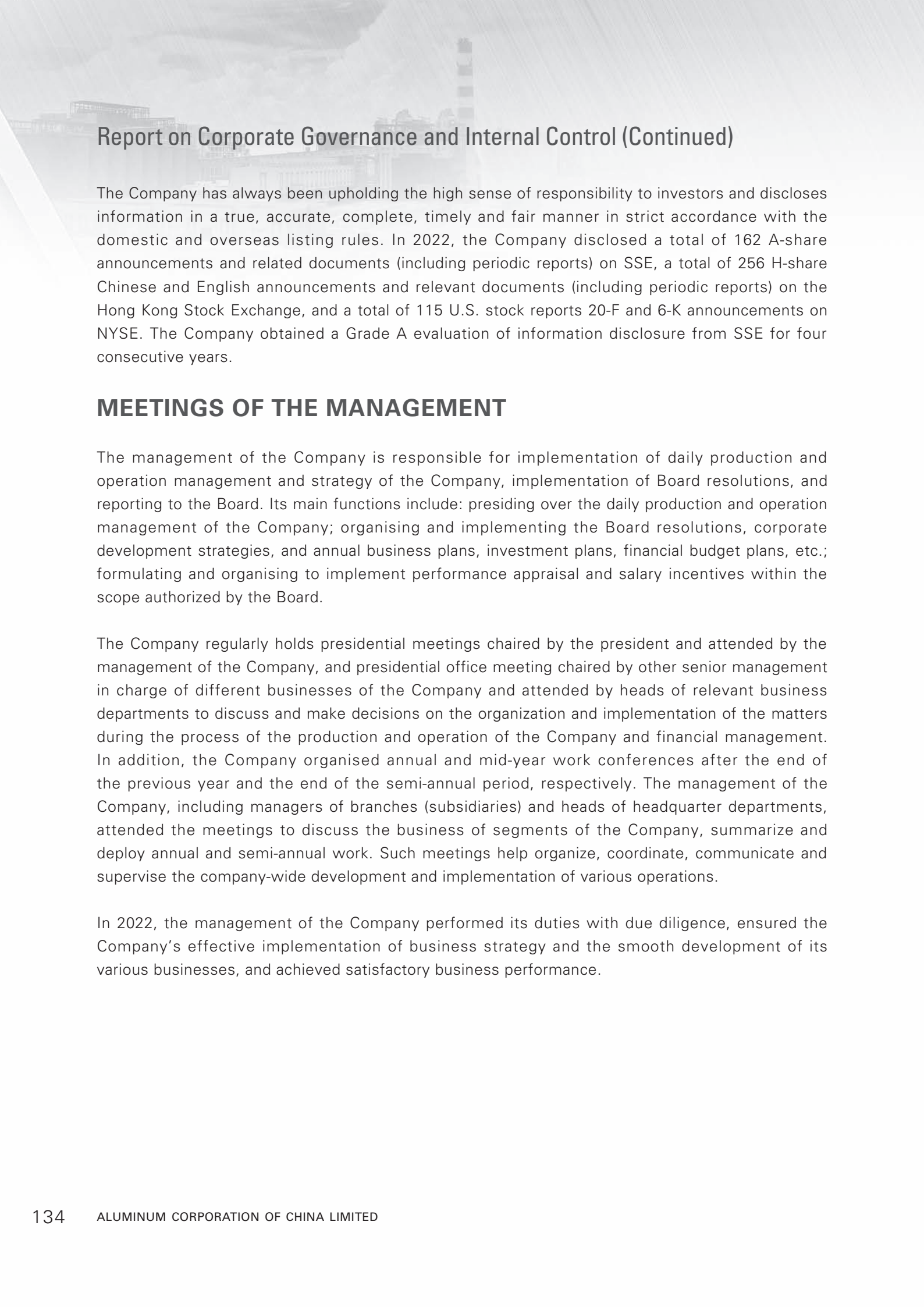
INFORMATION DISCLOSURE

The Company attaches consistent importance to information disclosure and cautiously copes with the proposed information disclosure, especially sensitive information that is likely to cause price and market fluctuation, enabling investors to obtain information of the Company in a timely, accurate and fair manner to minimize investors' investment risks. The Company has formulated the Management Measures of Information Disclosure of Aluminum Corporation of China Limited (《中國鋁業股份有限公司信息披露管理辦法》) and the Management Measures of Inside Information and Insiders of Aluminum Corporation of China Limited (《中國鋁業股份有限公司內幕信息及知情人管理辦法》), which were revised in June 2022, and such measures strictly specify the process of information screening, review, release and usage, and the provisions on persons with knowledge of inside information including registration and filing, confidentiality and punishment.

The general approval flow of the proposed information disclosure of the Company is in due order of the Board Office, responsible personnel of business units related to the announcement, representative for the Company's securities related affairs, secretary to the Board, president, chairman and the Board (as authorized). Upon approval, the information manuscript will not be disclosed until executed by representative for the Company's securities related affairs and secretary to the Board.

Chairman of the Company takes primary responsibility for information disclosure; the Board of the Company is the management organ of information disclosure; secretary to the Board takes main responsibility for information disclosure in the ordinary course of business of the Company; and Office of the Board is the routine executive organ of information disclosure of the Company, specifically dealing with information disclosure matters.

The Supervisory Committee of the Company reviews and supervises the work of information disclosure of the Company on a regular or occasional basis. The Board of the Company conducts self-assessment on annual information disclosure and includes the assessment results in the annual assessment report on internal control of the Company.



Report on Corporate Governance and Internal Control (Continued)

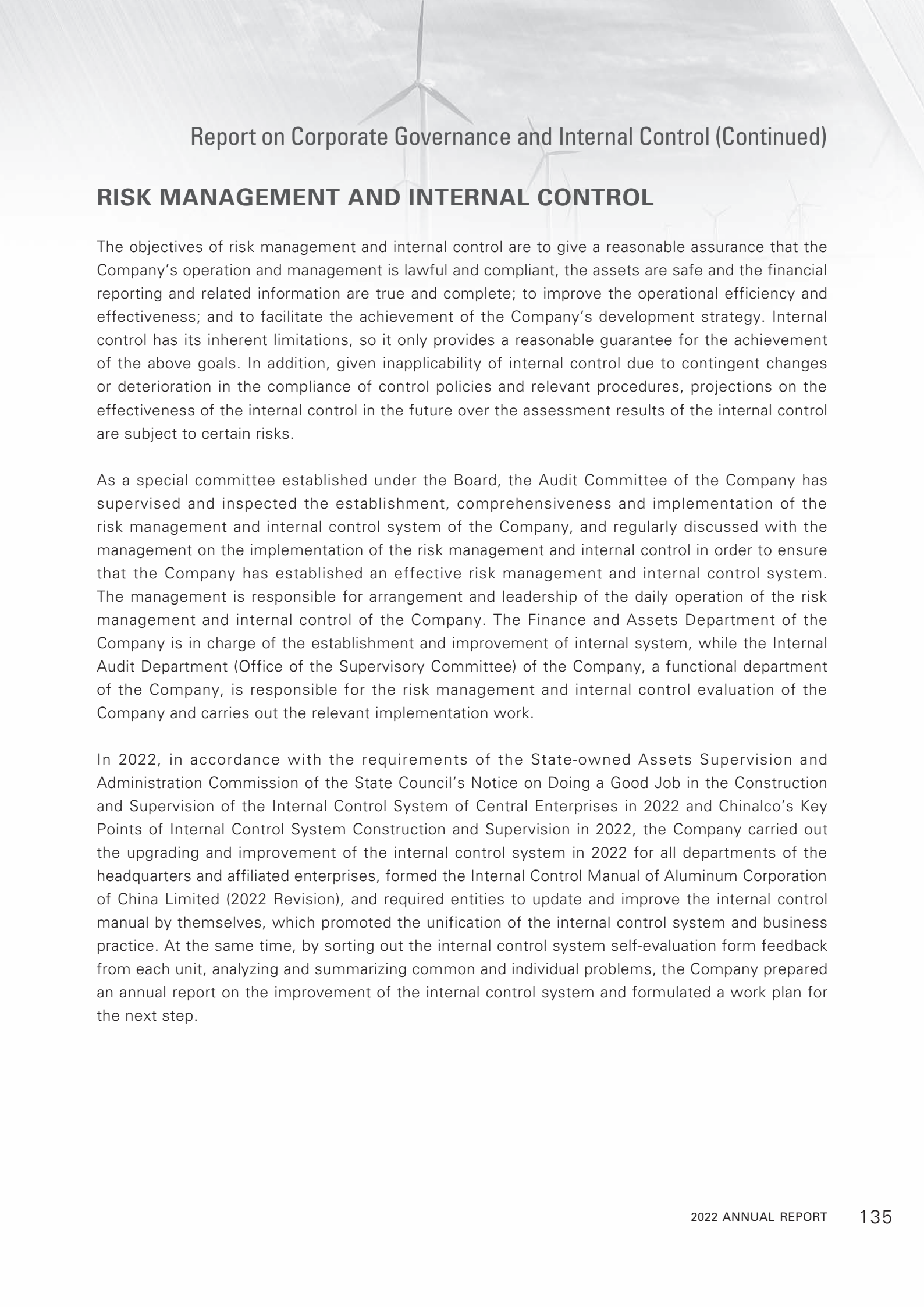
The Company has always been upholding the high sense of responsibility to investors and discloses information in a true, accurate, complete, timely and fair manner in strict accordance with the domestic and overseas listing rules. In 2022, the Company disclosed a total of 162 A-share announcements and related documents (including periodic reports) on SSE, a total of 256 H-share Chinese and English announcements and relevant documents (including periodic reports) on the Hong Kong Stock Exchange, and a total of 115 U.S. stock reports 20-F and 6-K announcements on NYSE. The Company obtained a Grade A evaluation of information disclosure from SSE for four consecutive years.

MEETINGS OF THE MANAGEMENT

The management of the Company is responsible for implementation of daily production and operation management and strategy of the Company, implementation of Board resolutions, and reporting to the Board. Its main functions include: presiding over the daily production and operation management of the Company; organising and implementing the Board resolutions, corporate development strategies, and annual business plans, investment plans, financial budget plans, etc.; formulating and organising to implement performance appraisal and salary incentives within the scope authorized by the Board.

The Company regularly holds presidential meetings chaired by the president and attended by the management of the Company, and presidential office meeting chaired by other senior management in charge of different businesses of the Company and attended by heads of relevant business departments to discuss and make decisions on the organization and implementation of the matters during the process of the production and operation of the Company and financial management. In addition, the Company organised annual and mid-year work conferences after the end of the previous year and the end of the semi-annual period, respectively. The management of the Company, including managers of branches (subsidiaries) and heads of headquarter departments, attended the meetings to discuss the business of segments of the Company, summarize and deploy annual and semi-annual work. Such meetings help organize, coordinate, communicate and supervise the company-wide development and implementation of various operations.

In 2022, the management of the Company performed its duties with due diligence, ensured the Company's effective implementation of business strategy and the smooth development of its various businesses, and achieved satisfactory business performance.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its blades extending towards the top. Other smaller turbines are visible in the distance to the right and further back, creating a sense of depth. The sky is filled with soft, wispy clouds.

Report on Corporate Governance and Internal Control (Continued)

RISK MANAGEMENT AND INTERNAL CONTROL

The objectives of risk management and internal control are to give a reasonable assurance that the Company's operation and management is lawful and compliant, the assets are safe and the financial reporting and related information are true and complete; to improve the operational efficiency and effectiveness; and to facilitate the achievement of the Company's development strategy. Internal control has its inherent limitations, so it only provides a reasonable guarantee for the achievement of the above goals. In addition, given inapplicability of internal control due to contingent changes or deterioration in the compliance of control policies and relevant procedures, projections on the effectiveness of the internal control in the future over the assessment results of the internal control are subject to certain risks.

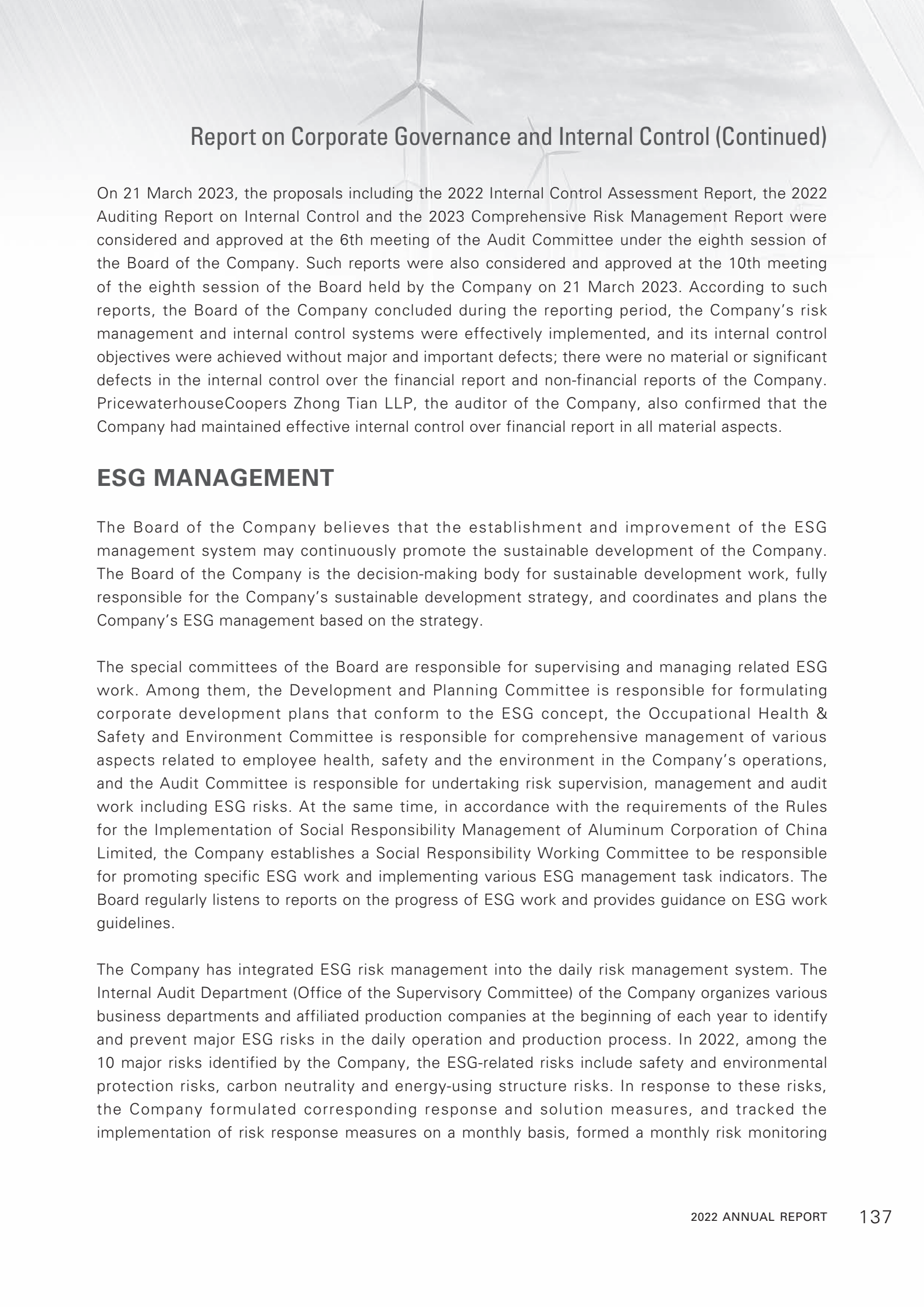
As a special committee established under the Board, the Audit Committee of the Company has supervised and inspected the establishment, comprehensiveness and implementation of the risk management and internal control system of the Company, and regularly discussed with the management on the implementation of the risk management and internal control in order to ensure that the Company has established an effective risk management and internal control system. The management is responsible for arrangement and leadership of the daily operation of the risk management and internal control of the Company. The Finance and Assets Department of the Company is in charge of the establishment and improvement of internal system, while the Internal Audit Department (Office of the Supervisory Committee) of the Company, a functional department of the Company, is responsible for the risk management and internal control evaluation of the Company and carries out the relevant implementation work.

In 2022, in accordance with the requirements of the State-owned Assets Supervision and Administration Commission of the State Council's Notice on Doing a Good Job in the Construction and Supervision of the Internal Control System of Central Enterprises in 2022 and Chinalco's Key Points of Internal Control System Construction and Supervision in 2022, the Company carried out the upgrading and improvement of the internal control system in 2022 for all departments of the headquarters and affiliated enterprises, formed the Internal Control Manual of Aluminum Corporation of China Limited (2022 Revision), and required entities to update and improve the internal control manual by themselves, which promoted the unification of the internal control system and business practice. At the same time, by sorting out the internal control system self-evaluation form feedback from each unit, analyzing and summarizing common and individual problems, the Company prepared an annual report on the improvement of the internal control system and formulated a work plan for the next step.

Report on Corporate Governance and Internal Control (Continued)

As the responsible department for the Company's risk management, the Internal Audit Department (Office of the Supervisory Committee) of the Company, organizes all departments of the headquarters and its affiliated enterprises to collect relevant information comprehensively and systematically based on the new changes in the external environment and the new trends of their own business development at the beginning of each year, so as to identify internal and external risks and finally determine the Company's annual major risks. For each such risk, it performs analysis, formulates countermeasures, prepares a comprehensive risk management report and reports it to the Audit Committee and the Board. It also, on a monthly basis, dynamically monitors such risks, tracks the implementation of countermeasures for such risks by various departments and affiliated enterprises, reports the changing trend of such risks to the management and put forwards management suggestions in a timely manner. In addition, the Company also draws lessons from the advanced risk management methods of other listed companies, combines risk of the headquarters with the risk control of the whole business process, and organizes the compilation of internal control risk lists and incompatible job lists in five business areas, including inspection and laboratory management, contract management, scientific research management, procurement management, and device maintenance management, which creates conditions for further deepening internal control risk management.

The Audit Committee of the Board of the Company conducts two reviews over the risk management and internal control of the Company on an annual basis. On 22 March 2022, at the 18th meeting of the Audit Committee under the seventh session of the Board of the Company, the Audit Committee reported the implementation of risk management and internal control of the Company in 2021 and its results as well as the work plan for 2022, reviewed and approved resolutions including the 2021 Internal Control Assessment Report and the Auditing Report on Internal Control, and the 2021 Comprehensive Risk Management Report. On 23 August 2022, the proposals including the summary of the internal control assessment of the Company for the first half year of 2022 and the work arrangement for the second half of 2022 were considered and approved at the second meeting of the Audit Committee under the eighth session of the Board of the Company. The Audit Committee of the Board of the Company reported to the Board for the aforesaid matters. On 22 March 2022, the proposals including the 2021 Internal Control Assessment Report, the 2021 Auditing Report on Internal Control and the 2022 Comprehensive Risk Management Report were also considered and approved at the 26th meeting of the seventh session of the Board of the Company.



Report on Corporate Governance and Internal Control (Continued)

On 21 March 2023, the proposals including the 2022 Internal Control Assessment Report, the 2022 Auditing Report on Internal Control and the 2023 Comprehensive Risk Management Report were considered and approved at the 6th meeting of the Audit Committee under the eighth session of the Board of the Company. Such reports were also considered and approved at the 10th meeting of the eighth session of the Board held by the Company on 21 March 2023. According to such reports, the Board of the Company concluded during the reporting period, the Company's risk management and internal control systems were effectively implemented, and its internal control objectives were achieved without major and important defects; there were no material or significant defects in the internal control over the financial report and non-financial reports of the Company. PricewaterhouseCoopers Zhong Tian LLP, the auditor of the Company, also confirmed that the Company had maintained effective internal control over financial report in all material aspects.

ESG MANAGEMENT

The Board of the Company believes that the establishment and improvement of the ESG management system may continuously promote the sustainable development of the Company. The Board of the Company is the decision-making body for sustainable development work, fully responsible for the Company's sustainable development strategy, and coordinates and plans the Company's ESG management based on the strategy.

The special committees of the Board are responsible for supervising and managing related ESG work. Among them, the Development and Planning Committee is responsible for formulating corporate development plans that conform to the ESG concept, the Occupational Health & Safety and Environment Committee is responsible for comprehensive management of various aspects related to employee health, safety and the environment in the Company's operations, and the Audit Committee is responsible for undertaking risk supervision, management and audit work including ESG risks. At the same time, in accordance with the requirements of the Rules for the Implementation of Social Responsibility Management of Aluminum Corporation of China Limited, the Company establishes a Social Responsibility Working Committee to be responsible for promoting specific ESG work and implementing various ESG management task indicators. The Board regularly listens to reports on the progress of ESG work and provides guidance on ESG work guidelines.

The Company has integrated ESG risk management into the daily risk management system. The Internal Audit Department (Office of the Supervisory Committee) of the Company organizes various business departments and affiliated production companies at the beginning of each year to identify and prevent major ESG risks in the daily operation and production process. In 2022, among the 10 major risks identified by the Company, the ESG-related risks include safety and environmental protection risks, carbon neutrality and energy-using structure risks. In response to these risks, the Company formulated corresponding response and solution measures, and tracked the implementation of risk response measures on a monthly basis, formed a monthly risk monitoring

Report on Corporate Governance and Internal Control (Continued)

report, submitted to the Company's management, and regularly reported to the Audit Committee and the Board.

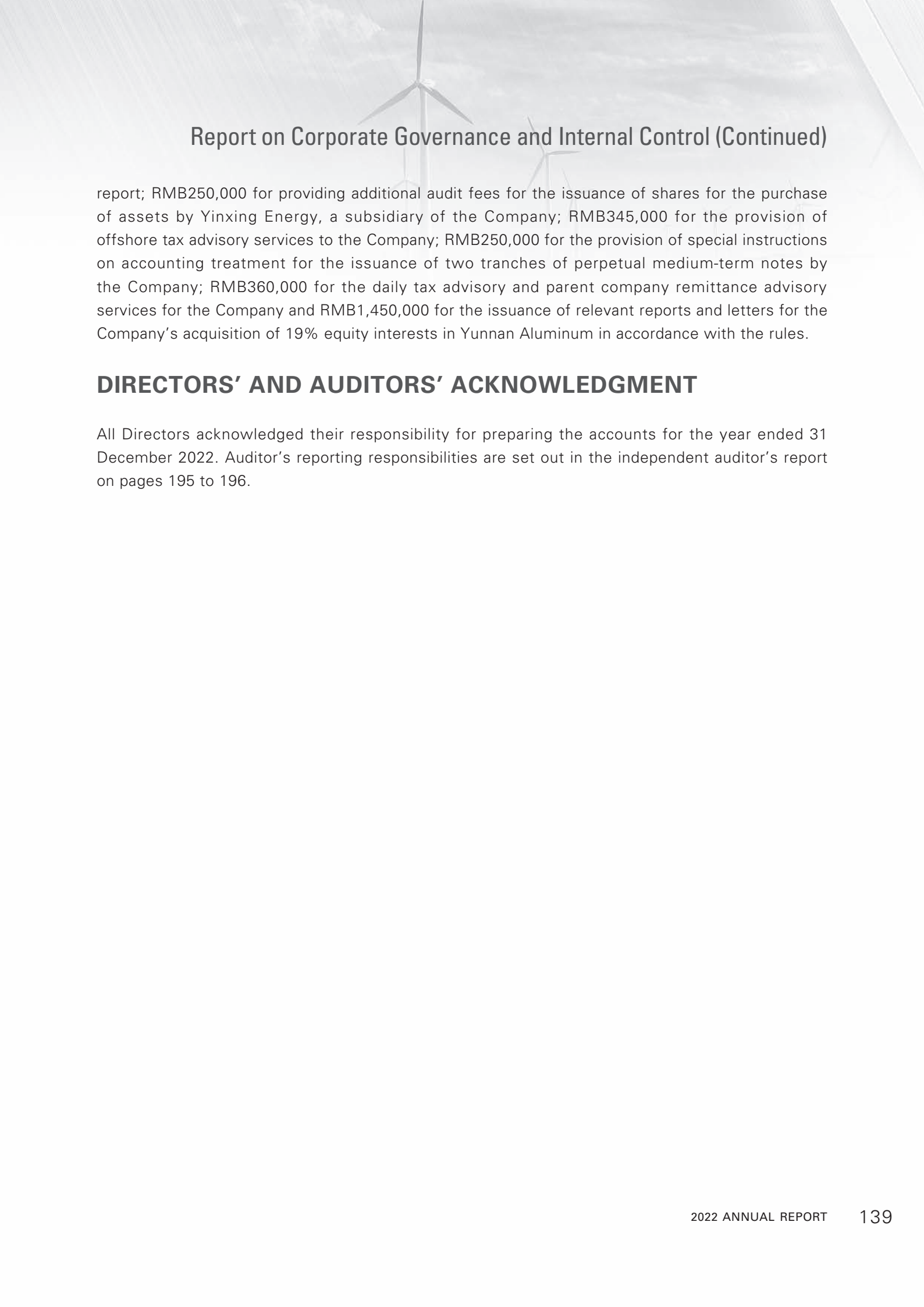
In order to continuously improve the Company's ESG governance level and to keep the Board abreast of the latest ESG development trends, the Company invited PwC's ESG information disclosure and advisory team to conduct training for the Board themed "ESG Development Trends and Corporate Responses" in September 2022, which introduced ESG development trends from the aspects of ESG regulation, ESG investment and focus on climate change, and made suggestions for the Company's ESG improvement work.

Benefiting from the increasing importance attached to ESG management by the Board and management, the ESG performance of the Company has been further recognized by the capital market by strengthening ESG disclosure and actively connecting with the capital market to more fully demonstrate the Company's ESG work measures and achievements. In 2022, the Company was once again selected into the "ESG Pioneer 50 Index of Central Enterprises", ranking the 5th in the "ESG Pioneer 50 Index of Central Enterprises", the 3rd in the "ESG Governance Pioneer 50 Index of Central Enterprises", the 2nd in the "ESG Social Value Pioneer 50 Index of Central Enterprises" and the 8th in the "ESG Risk Management Pioneer 50 Index of Central Enterprises", and was also listed in the Top 100 ESG evaluation of listed companies by "ESG Evaluation Research of Listed Companies". The Company's ESG practice case, "Chalco Practices ESG Development Concept, Contributing to Building a Greener Industry and a Greener World", was selected as the best practice case of China Association for Public Companies.

AUDITORS' REMUNERATION

Upon consideration and approval at the 26th meeting of the seventh session of the Board held on 22 March 2022 and the 2021 annual general meeting of the Company held on 21 June 2022, PricewaterhouseCoopers Zhong Tian LLP and PricewaterhouseCoopers were appointed by the Company as the 2022 domestic and international auditors of the Company. In particular, PricewaterhouseCoopers Zhong Tian LLP is mainly responsible for domestic and the United States business of the Company; PricewaterhouseCoopers is mainly responsible for Hong Kong business of the Company.

In 2022, the total remuneration for audit and non-audit services payable by the Company to the auditors was RMB21.51 million, including the audit fee was RMB18.17 million, which is the remuneration received by the auditors for the provision of domestic and overseas audit services of 2022 annual report and internal control for the Company; the non-audit service fee was RMB3.34 million, mainly including RMB420,000 for advising the Company on tax risks and application for Hong Kong tax residency; RMB65,000 for local documentation services for the preparation of transfer pricing information for the same period for the Company's 2021 related business transactions; RMB200,000 for the preparation of the Company's 2021 annual carbon reduction

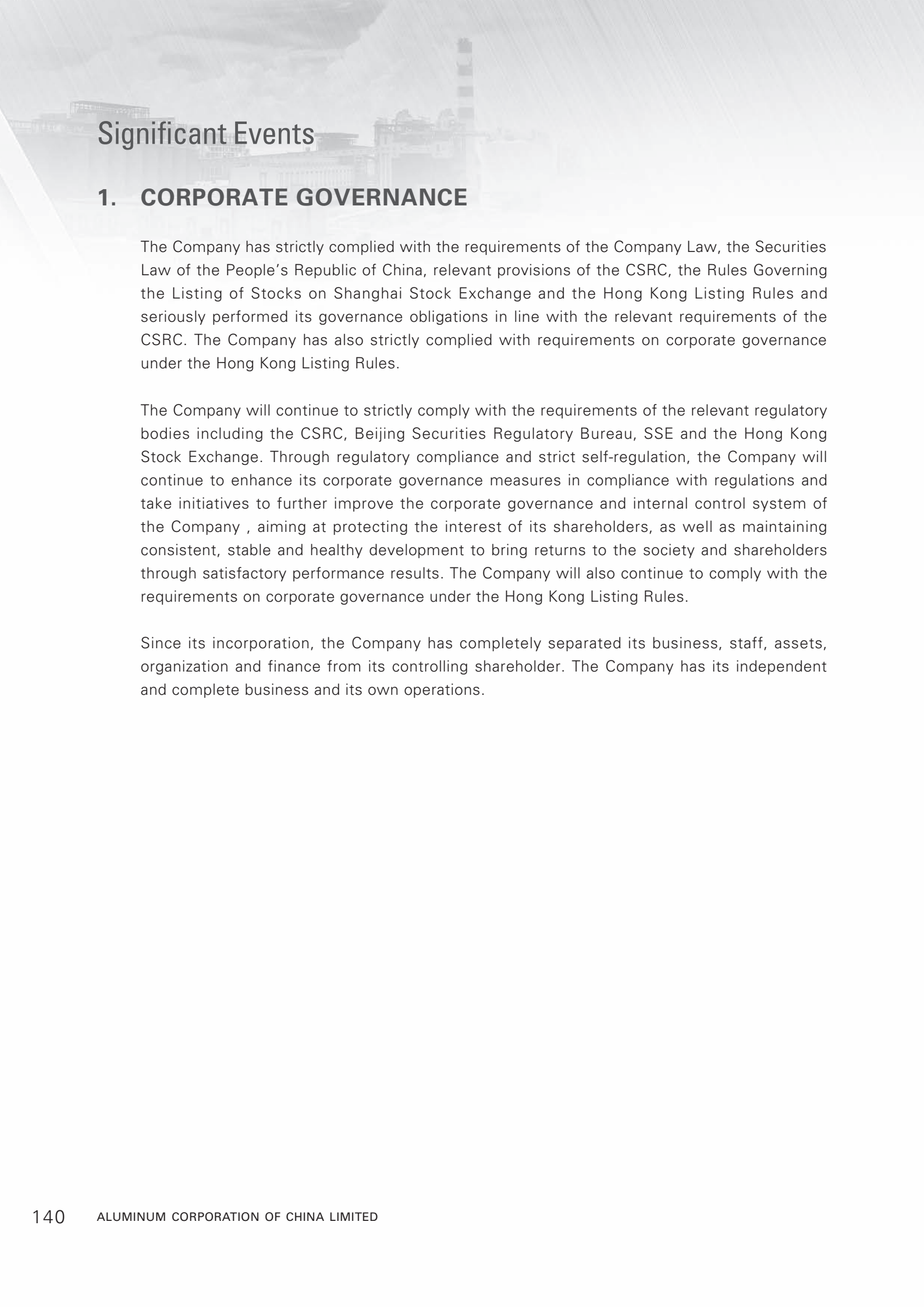
The background of the page features a grayscale image of several wind turbines standing in a field under a cloudy sky. The turbines are positioned at different angles, with one prominently in the center-left and others receding into the background.

Report on Corporate Governance and Internal Control (Continued)

report; RMB250,000 for providing additional audit fees for the issuance of shares for the purchase of assets by Yinxing Energy, a subsidiary of the Company; RMB345,000 for the provision of offshore tax advisory services to the Company; RMB250,000 for the provision of special instructions on accounting treatment for the issuance of two tranches of perpetual medium-term notes by the Company; RMB360,000 for the daily tax advisory and parent company remittance advisory services for the Company and RMB1,450,000 for the issuance of relevant reports and letters for the Company's acquisition of 19% equity interests in Yunnan Aluminum in accordance with the rules.

DIRECTORS' AND AUDITORS' ACKNOWLEDGMENT

All Directors acknowledged their responsibility for preparing the accounts for the year ended 31 December 2022. Auditor's reporting responsibilities are set out in the independent auditor's report on pages 195 to 196.



Significant Events

1. CORPORATE GOVERNANCE

The Company has strictly complied with the requirements of the Company Law, the Securities Law of the People's Republic of China, relevant provisions of the CSRC, the Rules Governing the Listing of Stocks on Shanghai Stock Exchange and the Hong Kong Listing Rules and seriously performed its governance obligations in line with the relevant requirements of the CSRC. The Company has also strictly complied with requirements on corporate governance under the Hong Kong Listing Rules.

The Company will continue to strictly comply with the requirements of the relevant regulatory bodies including the CSRC, Beijing Securities Regulatory Bureau, SSE and the Hong Kong Stock Exchange. Through regulatory compliance and strict self-regulation, the Company will continue to enhance its corporate governance measures in compliance with regulations and take initiatives to further improve the corporate governance and internal control system of the Company, aiming at protecting the interest of its shareholders, as well as maintaining consistent, stable and healthy development to bring returns to the society and shareholders through satisfactory performance results. The Company will also continue to comply with the requirements on corporate governance under the Hong Kong Listing Rules.

Since its incorporation, the Company has completely separated its business, staff, assets, organization and finance from its controlling shareholder. The Company has its independent and complete business and its own operations.

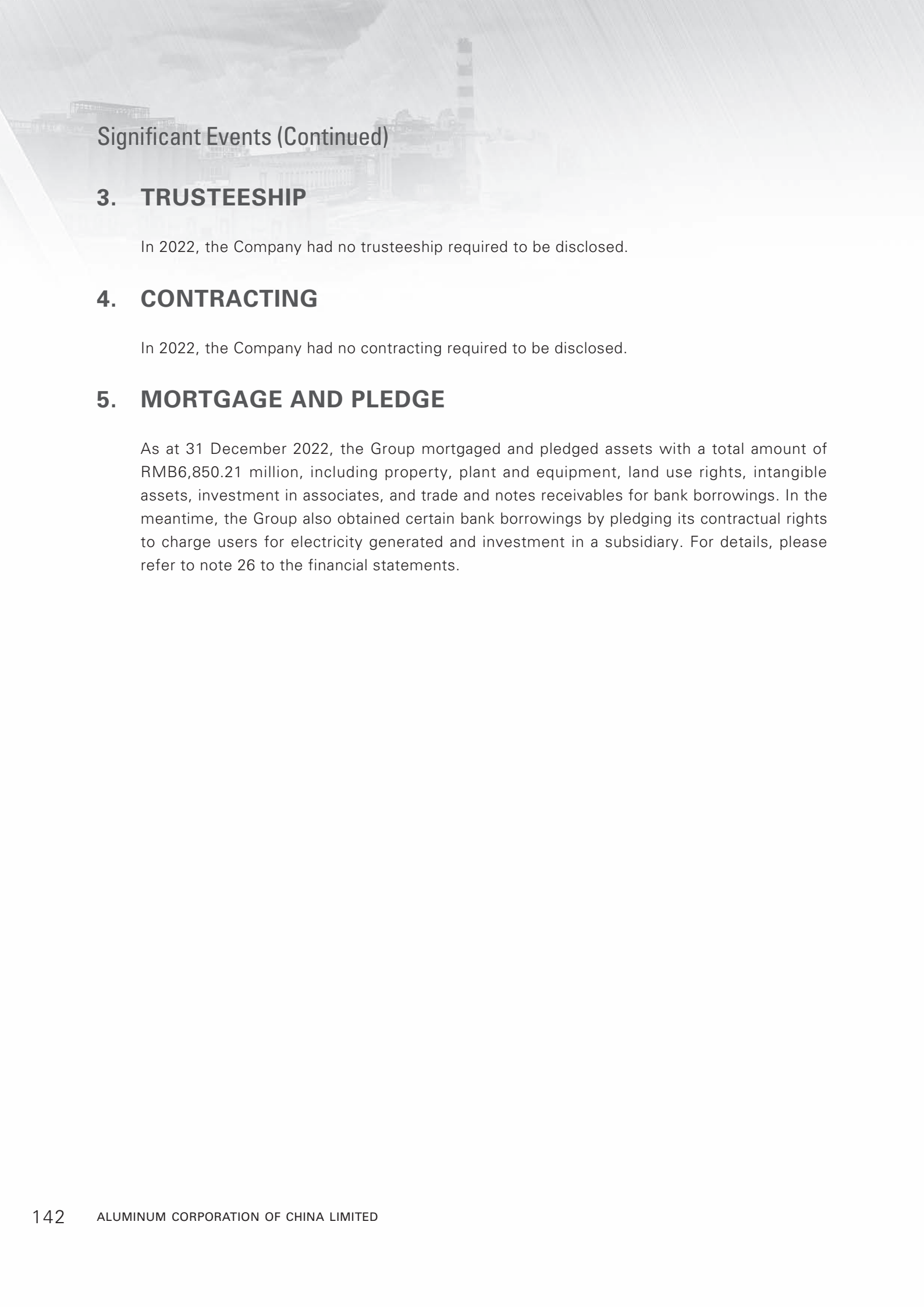
2. ACQUISITIONS

In 2022, the Company's material acquisitions included the acquisition of 19% equity interests in Yunnan Aluminum, the details of which are as follows:

At the second meeting of the eighth session of the Board of the Company held on 24 July 2022, the Resolution in relation to the Acquisition of 19% Equity Interests in Yunnan Aluminum Co., Ltd. by the Company was considered and passed, whereby the Company was approved to acquire 19% equity interests (i.e. 658,911,907 shares) in Yunnan Aluminum held by Yunnan Metallurgical Group Co., Ltd. ("**Yunnan Metallurgical**") in cash by way of transfer agreement. The consideration of the transaction was calculated based on the arithmetic average of the daily weighted average price of the shares of Yunnan Aluminum for the 30 trading days preceding the disclosure date of the announcement of the Board resolution through which the Board considered and approved the transaction (i.e. 25 July 2022), and the transfer price was RMB10.11 per share, and the total consideration of the transaction was approximately RMB6,662 million. On the same date, the Company and Yunnan Metallurgical entered into a shares transfer agreement accompanied with operative clauses. On 29 September 2022, the aforesaid acquisition of shares was considered and approved at the 2022 second extraordinary general meeting of the Company. On 23 November 2022, the Company received the Confirmation of Security Transfer Registration issued by China Securities Depository and Clearing Co., Limited, and the transfer registration procedures for 658,911,907 shares of Yunnan Aluminum acquired by the Company were completed on 22 November 2022. Upon the completion of the acquisition, the Company holds 29.10% equity interests in Yunnan Aluminum and becomes the controlling shareholder of Yunnan Aluminum. The financial results of Yunnan Aluminum have been consolidated into the financial statements of the Company.

Yunnan Metallurgical is a subsidiary of Chinalco, the controlling shareholder of the Company, therefore, Yunnan Metallurgical is a connected person of the Company under the Hong Kong Listing Rules. Meanwhile, as the highest applicable percentage ratio in respect of the above share transfer transaction exceeds 25% but is less than 100%, the transaction constitutes a major transaction under Chapter 14 of the Hong Kong Listing Rules and a connected transaction under Chapter 14A of the Hong Kong Listing Rules. Accordingly, the transaction was subject to reporting, announcement and independent shareholders' approval requirements under Chapter 14 and Chapter 14A of the Hong Kong Listing Rules.

Please refer to the announcements of the Company dated 25 July 2022, 29 September 2022 and 23 November 2022 and the supplemental circular dated 14 September 2022 for details of the above matters.



Significant Events (Continued)

3. TRUSTEESHIP

In 2022, the Company had no trusteeship required to be disclosed.

4. CONTRACTING

In 2022, the Company had no contracting required to be disclosed.

5. MORTGAGE AND PLEDGE

As at 31 December 2022, the Group mortgaged and pledged assets with a total amount of RMB6,850.21 million, including property, plant and equipment, land use rights, intangible assets, investment in associates, and trade and notes receivables for bank borrowings. In the meantime, the Group also obtained certain bank borrowings by pledging its contractual rights to charge users for electricity generated and investment in a subsidiary. For details, please refer to note 26 to the financial statements.

6. GUARANTEE

As of 31 December 2022, the Company's guarantee is as follows:

Unit: in RMB100 million

	2022	2021	Changes in 2022 compared to 2021
Balance of external guarantees (excluding guarantee to subsidiaries)	0	0	0
Guarantee balance to subsidiaries	126.61	134.96	-8.35

1. As of 31 December 2022, the balance of the guarantee mutually provided between Ningxia Energy, a controlled subsidiary of the Company, and its subsidiaries amounted to RMB1,115 million.
2. In July 2021, the Company provided guarantee for three-year senior bonds of USD500 million and five-year senior bonds of USD500 million issued by Chalco Hong Kong Investment Company Limited ("**Chalco Hong Kong Investment**"). As of 31 December 2022, the balance of the guarantee provided by the Company for Chalco Hong Kong Investment amounted to USD1,000 million (equivalent to approximately RMB6,965 million).
3. In March 2017, Baotou Aluminum entered into the Maximum Guarantee Contract (《最高額保證合同》) with Baotou Branch of Shanghai Pudong Development Bank, pursuant to which Baotou Aluminum would provide guarantee in respect of financing up to RMB2,000 million in total for its controlled subsidiary Inner Mongolia Huayun New Materials Co., Ltd.* (內蒙古華雲新材料有限公司) ("**Inner Mongolia Huayun**"). The guarantee period was two years from the date of expiry of the term for repayment of each loan under the principal contract. As of 31 December 2022, the balance of the guarantee provided by Baotou Aluminum to Inner Mongolia Huayun amounted to RMB413 million.

Significant Events (Continued)

4. In November 2019, the Company provided financing guarantee for Chalco Energy Holdings Co., Ltd.* (中國鋁業能源控股有限公司) (“**Chalco Energy Holdings**”), a subsidiary of the Company, due to the financing of the mining project in Boffa, Guinea. As of 31 December 2022, the balance of the guarantee provided by the Company for Chalco Energy Holdings amounted to RMB508 million.
5. In December 2021, Chalco Logistics entered into a guarantee contract with Shanghai Futures Exchange, pursuant to which Chalco Logistics would provide guarantee for its controlled subsidiary Chalco Logistics Group Central International Port Co., Ltd.* (中鋁物流集團中部國際陸港有限公司) (“**Central Port**”) with its net assets. As of 31 December 2022, the balance of the guarantee provided by Chalco Logistics to Central Port amounted to RMB1,100 million.
6. In September 2020, the Company provided guarantee for the bank borrowings of Boffa Port Investment Co., Ltd. (博法港口投資有限公司) (“**Boffa Port**”), a subsidiary of the Company. As of 31 December 2022, the balance of the guarantee provided by the Company to Boffa Port amounted to RMB222 million.
7. In April 2021, Chalco Trading Group entered into a guarantee contract with Zhengzhou Commodity Exchange, pursuant to which Chalco Trading Group would provide guarantee for its controlled subsidiary Chalco Inner Mongolian International Trading Co., Ltd.* (中鋁內蒙古國貿有限公司) (“**Inner Mongolian Trading**”). As of 31 December 2022, the balance of the guarantee provided by Chalco Trading Group to Inner Mongolian Trading amounted to RMB2,339 million.

7. ENTRUSTED WEALTH MANAGEMENT AND SHORT-TERM INVESTMENTS

In 2022, the Group had no significant short-term investments that are required to be disclosed.

8. PERFORMANCE OF UNDERTAKINGS

After the approval of the resolution on the acquisition of 19% equity interest in Yunnan Aluminum by the Board of the Company, the Company issued the Commitment Letter on Avoidance of Horizontal Competition with Yunnan Aluminum Co., Ltd., the Commitment Letter on Maintaining the Independence of Yunnan Aluminum Co., Ltd., and the Commitment Letter on the Regulation of Related-party Transactions with Yunnan Aluminum Co., Ltd. on 27 July 2022, in which the Company undertook to appropriately resolve the issue of horizontal competition with Yunnan Aluminum within five years from 2019; undertook to ensure the independence of Yunnan Aluminum, without interfere with the operational decisions of Yunnan Aluminum and illegal occupation of the funds of Yunnan Aluminum and its subsidiaries in any way; undertook to minimize and standardize the related-party transactions with Yunnan Aluminum, strictly fulfill the decision-making procedures of related-party transactions, and ensure fair pricing and timely fulfillment of information disclosure obligations.

The Company has strictly fulfilled the relevant undertakings during the reporting period and there has been no breach of undertakings or failure to fulfill undertakings in time.

9. PUNISHMENTS AND RECTIFICATIONS INVOLVED BY LISTED COMPANIES AND THEIR DIRECTORS, SUPERVISORS, SENIOR MANAGEMENT, SHAREHOLDERS, AND DE FACTO CONTROLLERS

In 2022, the Company and its Directors, Supervisors, senior management, shareholders, and de facto controllers were not under any investigation, administrative punishment, and public criticism from the CSRC and public censures from stock exchanges.

Significant Events (Continued)

10. EXPLANATION OF OTHER SIGNIFICANT EVENTS

(1) Provision for Asset Impairment

At the 26th meeting of the seventh session of the Board held on 22 March 2022 and the 13th meeting of the seventh session of the Supervisory Committee held on 21 March 2022, the Company considered and approved the "Resolution in relation to Proposed Provisions for Impairment on Assets of the Company in the Fourth Quarter of 2021", and agreed to the Company's net provision of RMB466 million and RMB2.240 billion to the impairment of creditor's rights (including long-term receivables) and impairment of long-term asset on consolidated basis in the fourth quarter of 2021, respectively. The provisions for impairment on assets (net) mentioned above resulted in the decrease of RMB2.706 billion in profit before tax and the decrease of RMB2.374 billion in the net profit attributable to the shareholders of the listed company in the consolidated financial statements of the Company for 2021.

At the fourth meeting of the eighth session of the Board held on 23 August 2022 and the second meeting of the eighth session of the Supervisory Committee held on 22 August 2022, the Company considered and approved the Resolution in relation to Proposed Provisions for Impairment on Assets of the Company in the First Half of 2022, and agreed to the Company's net provision for bad debts on receivables of RMB50 million and a provision for impairment on long-term assets of RMB2.101 billion on consolidated basis in the first half of 2022. The provisions for impairment on assets (net) mentioned above resulted in the decrease of RMB2.151 billion in profit before tax and the decrease of RMB2.126 billion in the net profit attributable to the shareholders of the listed company in the consolidated financial statements of the Company for the first half of 2022.

At the tenth meeting of the eighth session of the Board convened on 21 March 2023 and the fifth meeting of the eighth session of the Board convened on 20 March 2023, the Company considered and approved the Resolution in relation to Proposed Provisions for Impairment on Assets of the Company in the Second Half of 2022, and agreed to the Company's net provision for bad debts (including reversal) of RMB364 million and provision for impairment of long-lived assets of RMB1.848 billion on consolidated basis in the second half of 2022. The above provision for impairment (net) resulted in the decrease in pre-tax profit of the Company's consolidated statement for 2022 by RMB2,209 million and the decrease in net profit attributable to shareholders of listed companies by RMB1,986 million.

Please refer to the Company's announcements dated 22 March 2022, 23 August 2022 and 21 March 2023 for details of the above matters.

(2) Change of Accounting Policies

At the 26th meeting of the seventh session of the Board held on 22 March 2022 and the 13th meeting of the seventh session of the Supervisory Committee held on 21 March 2022, the Company considered and approved the Resolution in relation to the Proposed Change of Accounting Policy, and agreed to carry forward the transportation costs related to the transportation activities into the item of “cost of sales” in the income statement by the Company since 2021, for the purpose of fulfilling the revenue contract, when the revenue of goods and services is recognized, instead of “selling expenses” onwards. Retrospective adjustments will be made to previous years’ data in accordance with the requirements of accounting standards. As assessed, the change of accounting policy of the Company only affected the reclassification adjustment between items in the income statement and will not have material impact on the Company’s financial conditions, operating performance and cash flow.

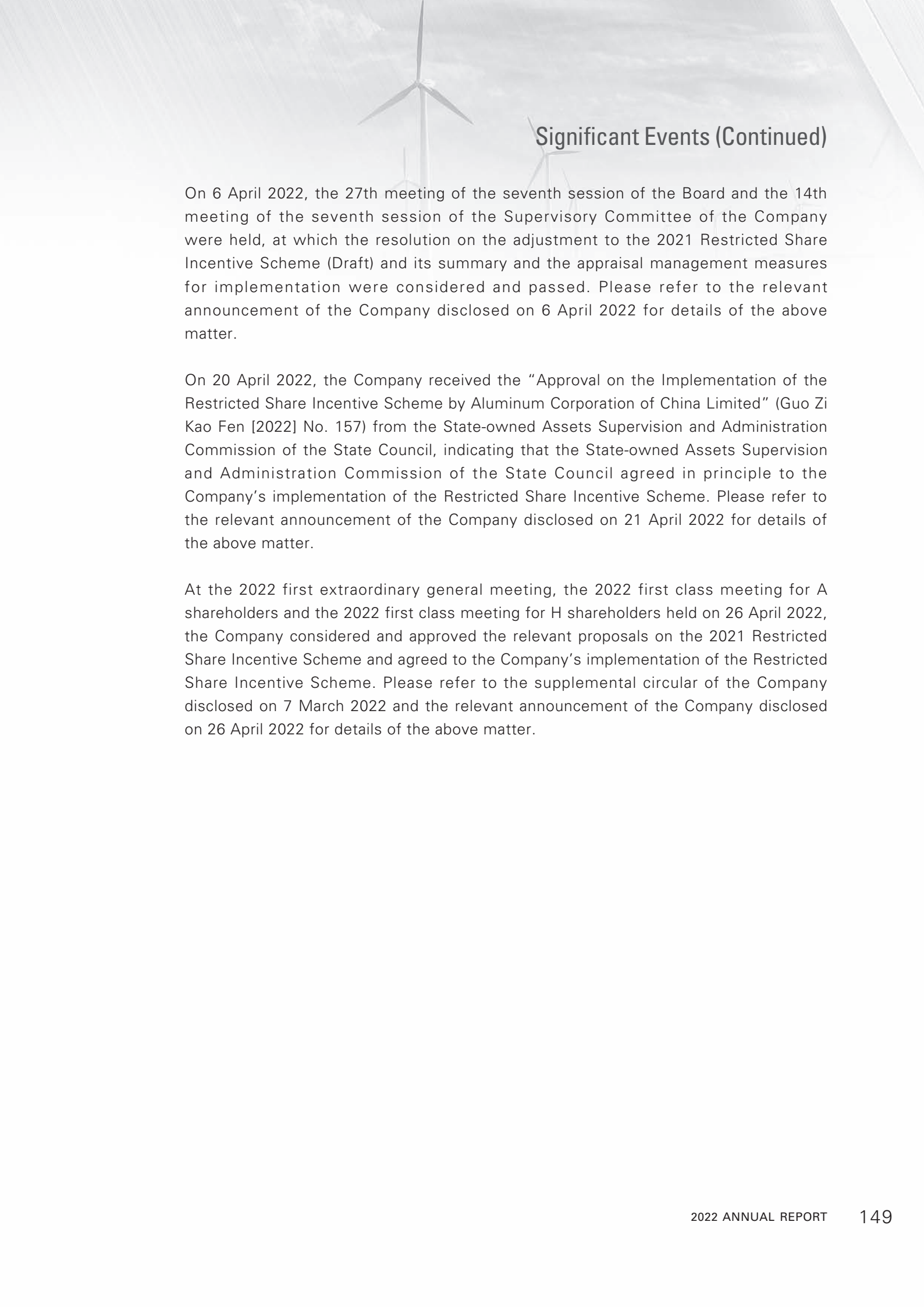
At the fourth meeting of the eighth session of the Board of the Company held on 23 August 2022 and the second meeting of the eighth session of the Supervisory Committee of the Company held on 22 August 2022, the Resolution on the Proposed Change in Accounting Policy of the Company was considered and passed, pursuant to which, the Company was approved to, from 2022 onwards, account for the revenue and costs realised from the external sales of products or by-products produced before the fixed assets reach their intended usable state in the profit or loss for the current period respectively, and the value of fixed assets shall no longer be written down. Retrospective adjustment to the data for the prior years shall be made in accordance with the relevant requirements of the accounting standards. As assessed, the change in accounting policy will have no material impact on the Company’s financial indicators including assets, liabilities, equity and profit.

Please refer to the Company’s announcements dated 22 March 2022 and 23 August 2022 for details of the above matter.

Significant Events (Continued)

(3) Implementation of the 2021 Restricted Share Incentive Scheme

At the 24th meeting of the seventh session of the Board and the 12th meeting of the seventh session of the Supervisory Committee of the Company held on 21 December 2021, the Company reviewed and approved the relevant proposals on the Company's Restricted Share Incentive Scheme (Draft) in 2021 and its summary, and agreed to the implementation of the 2021 Restricted Share Incentive Scheme to grant not more than 141,000,000 A shares to not more than 1,192 participants (representing approximately 0.82% of the Company's 17,161,591,551 shares in issue at the end of the reporting period). The Restricted Share Incentive Scheme is valid from the date of completion of registration of the initial grant of restricted shares to the date of release of all restricted shares granted to the participants or the date of repurchase, subject to a maximum period of 72 months. The purpose of the Restricted Share Incentive Scheme is to further improve the corporate governance structure, establish a sound sustainable and stable incentive restraint mechanism, bring sustainable returns to shareholders, build a bond of interests among shareholders, the Company and employees, fully mobilize the enthusiasm of core employees, support the strategic realization and long-term steady development of the Company, attract, retain and motivate outstanding talents and advocate the concept of sustainable development of the Company and its employees together. The participants of the Incentive Scheme include directors, senior management, middle management and core technical (business) backbone of the Company. The number of Restricted Shares granted to any one participant shall not exceed 1% of the total share capital of the Company prior to the submission of the Restricted Share Incentive Scheme to the general meeting for consideration. The date of determining the price of the Restricted Shares under the first grant is the date of announcement of the draft Restricted Share Incentive Scheme. The price of grant shall not be less than the par value of the shares (RMB1.00) and shall not be less than the higher of: (1). 50% of the average trading price of the Company's A shares for the 1 trading day prior to the announcement of the Restricted Share Incentive Scheme, being RMB3.08 per share; (2). 50% of the average trading price of the Company's A shares for the 20 trading days prior to the announcement of the Restricted Share Incentive Scheme, being RMB2.98 per share. The price of reserved restricted shares granted shall not be less than the par value of the shares (RMB1.00) and not less than 50% of the higher of the following prices: (1). the average trading price of the Company's A shares for 1 trading day prior to the announcement of the resolution of the Board to grant reserved restricted shares; (2). one of the average trading price of the Company's A shares for 20 trading days, 60 trading days or 120 trading days prior to the announcement of the resolution of the Board to grant reserved restricted shares. Please refer to the relevant announcements of the Company disclosed on 21 and 22 December 2021 for details of the above matter.



Significant Events (Continued)

On 6 April 2022, the 27th meeting of the seventh session of the Board and the 14th meeting of the seventh session of the Supervisory Committee of the Company were held, at which the resolution on the adjustment to the 2021 Restricted Share Incentive Scheme (Draft) and its summary and the appraisal management measures for implementation were considered and passed. Please refer to the relevant announcement of the Company disclosed on 6 April 2022 for details of the above matter.

On 20 April 2022, the Company received the “Approval on the Implementation of the Restricted Share Incentive Scheme by Aluminum Corporation of China Limited” (Guo Zi Kao Fen [2022] No. 157) from the State-owned Assets Supervision and Administration Commission of the State Council, indicating that the State-owned Assets Supervision and Administration Commission of the State Council agreed in principle to the Company’s implementation of the Restricted Share Incentive Scheme. Please refer to the relevant announcement of the Company disclosed on 21 April 2022 for details of the above matter.

At the 2022 first extraordinary general meeting, the 2022 first class meeting for A shareholders and the 2022 first class meeting for H shareholders held on 26 April 2022, the Company considered and approved the relevant proposals on the 2021 Restricted Share Incentive Scheme and agreed to the Company’s implementation of the Restricted Share Incentive Scheme. Please refer to the supplemental circular of the Company disclosed on 7 March 2022 and the relevant announcement of the Company disclosed on 26 April 2022 for details of the above matter.

Significant Events (Continued)

At the 16th meeting of the seventh session of the Supervisory Committee and the 29th meeting of the seventh session of the Board of the Company held on 24 May and 25 May 2022, respectively, the Company considered and approved the resolution in relation to relevant matters on the adjustment to the 2021 Restricted Share Incentive Scheme and the resolution in relation to first grant of Restricted Shares to Participants, and agreed to grant 113,438,200 Restricted Shares to 943 Participants at the Grant Price of RMB3.08 per share with 25 May 2022 as the First Grant Date. Please refer to the relevant announcement of the Company disclosed on 25 May 2022 for details of the above matter.

On 14 June 2022, the Company received the Securities Transfer Registration Certificate issued by Shanghai Branch of China Securities Depository and Clearing Corporation Limited, and the registration of the First Grant of 2021 Restricted Share Incentive Scheme has been completed on 13 June 2022, with a total of 112,270,300 Restricted Shares granted to 930 Participants. Please refer to the relevant announcement of the Company disclosed on 14 June 2022 for details of the above matter.

At the fourth meeting of the eighth session of the Supervisory Committee and the seventh meeting of the eighth session of the Board of the Company held on 23 November and 24 November 2022, respectively, the Company considered and passed the Resolution on the Proposed Grant of Reserved Restricted Shares to Participants under the 2021 Restricted Share Incentive Scheme of the Company, and agreed to grant 27,536,300 Restricted Shares to 285 Participants at the Grant Price of RMB2.21 per share with 24 November 2022 as the Reserve Grant Date. Please refer to the relevant announcement of the Company disclosed on 24 November 2022 for details of the above matter.

The Company received the Securities Transfer Registration Certificate issued by the Shanghai Branch of China Securities Depository and Clearing Corporation Limited on 26 December 2022. The reserved grant registration under the 2021 Restricted Share Incentive Scheme of the Company was completed on 23 December 2022. A total of 26,648,300 Restricted Shares were granted to 276 Participants. Please refer to the relevant announcement of the Company disclosed on 27 December 2022 for details of the above matter.

Significant Events (Continued)

Details of the grants made under the Restricted Share Incentive Scheme during the Reporting Period are set out below:

Name	Position(s)	Number of the Restricted Shares granted (0,000 shares)	Grant Date (Note 2)	Grant Price (RMB: Yuan/Share) (Note 3)	Percentage of the total share capital of the Company as at the date of adoption of the draft Restricted Share Incentive Scheme (%) (Note 4)
Zhu Runzhou	Director, President	27	25 May 2022	3.08	0.0016
Ou Xiaowu	Director	25	25 May 2022	3.08	0.0015
Jiang Tao	Director, Vice President	23	25 May 2022	3.08	0.0014
Wu Maosen	Vice President	26	25 May 2022	3.08	0.0015
Xu Feng	Vice President	23	25 May 2022	3.08	0.0014
Middle-level management, core technical (business) backbone (925 persons)		11,103.03	25 May 2022	3.08	0.6605
First Grant in total (930 persons)		11,227.03	25 May 2022	3.08	0.6664
Ge Xiaolei	Chief Financial Officer, Secretary to the Board	23	24 November 2022	2.21	0.0014
Li Wangxing	Chief Technology Officer	23	24 November 2022	2.21	0.0014
Middle-level management, core technical (business) backbone (274 persons)		2,618.83	24 November 2022	2.21	0.1538
Reserved grant in total (276 persons)		2,664.83	24 November 2022	2.21	0.1565
First Grant and Reserved grant in total (1,206 persons) (Note 5)		13,891.86	-	-	0.8161

Notes:

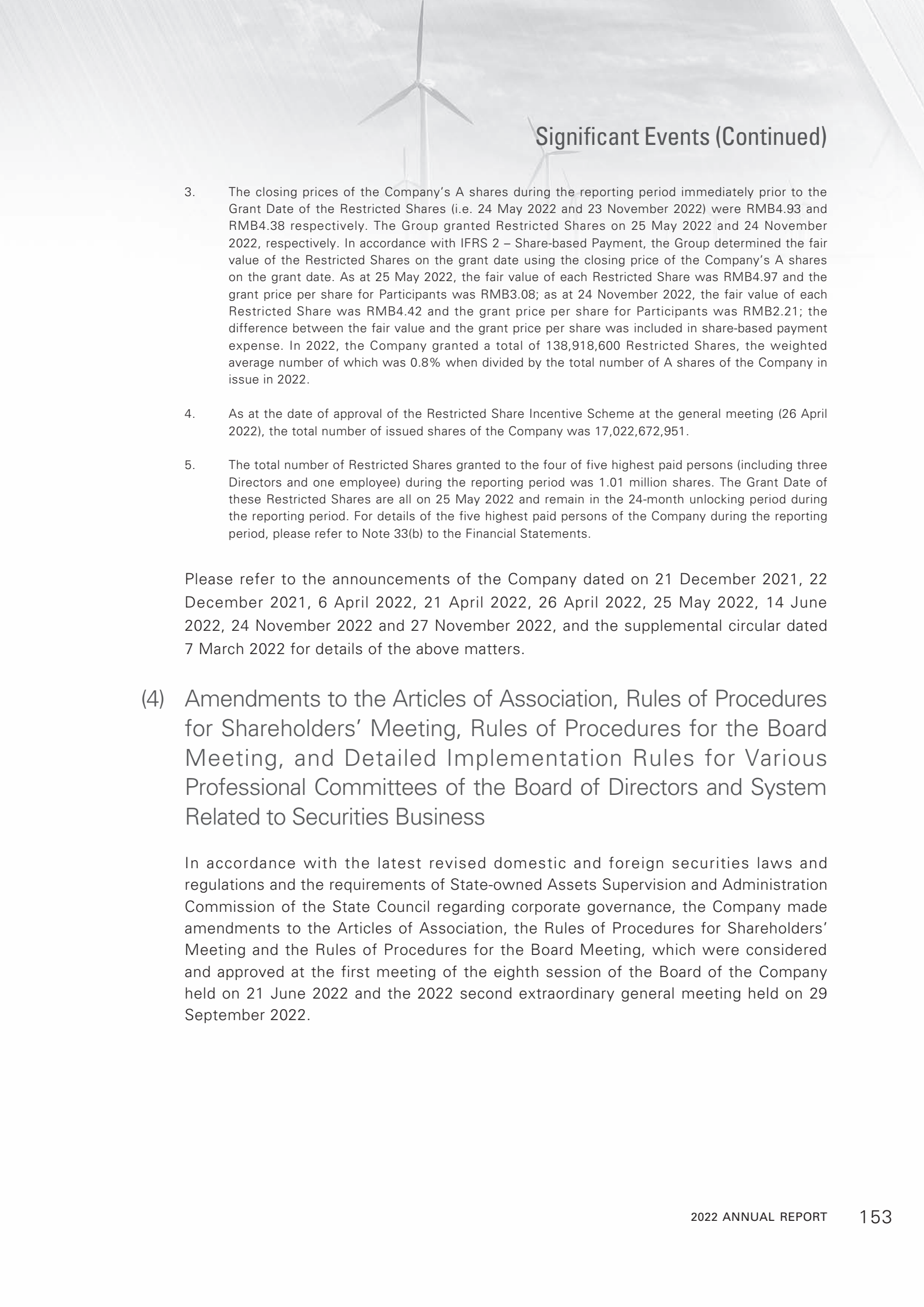
- Some figures shown as totals herein may not be an arithmetic aggregation of the figures preceding them due to rounding adjustments.
- The Lock-up Period shall be 24 months from the completion date of registration of the grant of Restricted Shares to the Participants. During the Lock-up Period, the Restricted Shares granted to the Participants shall be locked and shall not be transferred or assigned or used as guarantee or for repayment of debts. Upon unlocking, the Company shall proceed with the unlocking for the Participants who satisfy Unlocking Conditions, and the Restricted Shares held by the Participants who do not satisfy the Unlocking Conditions shall be repurchased by the Company. The schedule for the unlocking of Restricted Shares under the First and Reserved Grants of the Restricted Share Incentive Scheme is set out in the table below:

Significant Events (Continued)

Arrangement of unlocking	Unlocking Period	Percentage of the number of Restricted Shares to be unlocked to the number of the Restricted Shares granted
The first Unlocking Period for the first and reserved grant	Commencing from the first trading day after expiry of the 24-month period from the date of completion of registration of the corresponding grant and ending on the last trading day of the 36-month period from the date of completion of registration of such grant	40%
The second Unlocking Period for the first and reserved grant	Commencing from the first trading day after expiry of the 36-month period from the date of completion of registration of the corresponding grant and ending on the last trading day of the 48-month period from the date of completion of registration of such grant	30%
The third Unlocking Period for the first and reserved grant	Commencing from the first trading day after expiry of the 48-month period from the date of completion of registration of the corresponding grant and ending on the last trading day of the 60-month period from the date of completion of registration of such grant	30%

Based on the growth of the Company's future performance targets, the Restricted Share Incentive Scheme sets the conditions for the release of the restricted shares and links the results of the individual assessment of the Participants to the release of the Restricted Shares. The Restricted Share Incentive Scheme may be released when the performance indicators of the Company meet the performance appraisal targets at the same time there are no circumstances under which the Company is not allowed to exercise equity incentive as set out in the laws and regulations and the relevant regulations of the CSRC. The performance indicators of the Company include the compounded growth rate of net profit attributable to owners of the parent after excluding gains or losses from non-recurring items, the EBITDA/average net assets (EOE) and the annual EVA assessment targets set by the Board. For details of the Unlocking Conditions of Restricted Shares and the individual assessment process for Participants, please refer to Appendix I "Restricted Share Incentive Scheme (Draft)" and Appendix II "Implementation Assessment and Management of the Restricted Share Incentive Scheme" to the circular of the Company dated 7 March 2022.

During the Reporting Period, the Restricted Shares granted under the Restricted Share Incentive Scheme remained in the 24-month unlocking period. As disclosed in the Company's first grant and reserved grant results announcements dated 14 June 2022 and 27 December 2022, 23 Participants waived their subscriptions for a total of 2,055,900 restricted shares granted to them for personal reasons, and such Restricted Shares were directly reduced and cancelled. Apart from that, no other Restricted Shares have been cancelled or lapsed.



Significant Events (Continued)

3. The closing prices of the Company's A shares during the reporting period immediately prior to the Grant Date of the Restricted Shares (i.e. 24 May 2022 and 23 November 2022) were RMB4.93 and RMB4.38 respectively. The Group granted Restricted Shares on 25 May 2022 and 24 November 2022, respectively. In accordance with IFRS 2 – Share-based Payment, the Group determined the fair value of the Restricted Shares on the grant date using the closing price of the Company's A shares on the grant date. As at 25 May 2022, the fair value of each Restricted Share was RMB4.97 and the grant price per share for Participants was RMB3.08; as at 24 November 2022, the fair value of each Restricted Share was RMB4.42 and the grant price per share for Participants was RMB2.21; the difference between the fair value and the grant price per share was included in share-based payment expense. In 2022, the Company granted a total of 138,918,600 Restricted Shares, the weighted average number of which was 0.8% when divided by the total number of A shares of the Company in issue in 2022.
4. As at the date of approval of the Restricted Share Incentive Scheme at the general meeting (26 April 2022), the total number of issued shares of the Company was 17,022,672,951.
5. The total number of Restricted Shares granted to the four of five highest paid persons (including three Directors and one employee) during the reporting period was 1.01 million shares. The Grant Date of these Restricted Shares are all on 25 May 2022 and remain in the 24-month unlocking period during the reporting period. For details of the five highest paid persons of the Company during the reporting period, please refer to Note 33(b) to the Financial Statements.

Please refer to the announcements of the Company dated on 21 December 2021, 22 December 2021, 6 April 2022, 21 April 2022, 26 April 2022, 25 May 2022, 14 June 2022, 24 November 2022 and 27 November 2022, and the supplemental circular dated 7 March 2022 for details of the above matters.

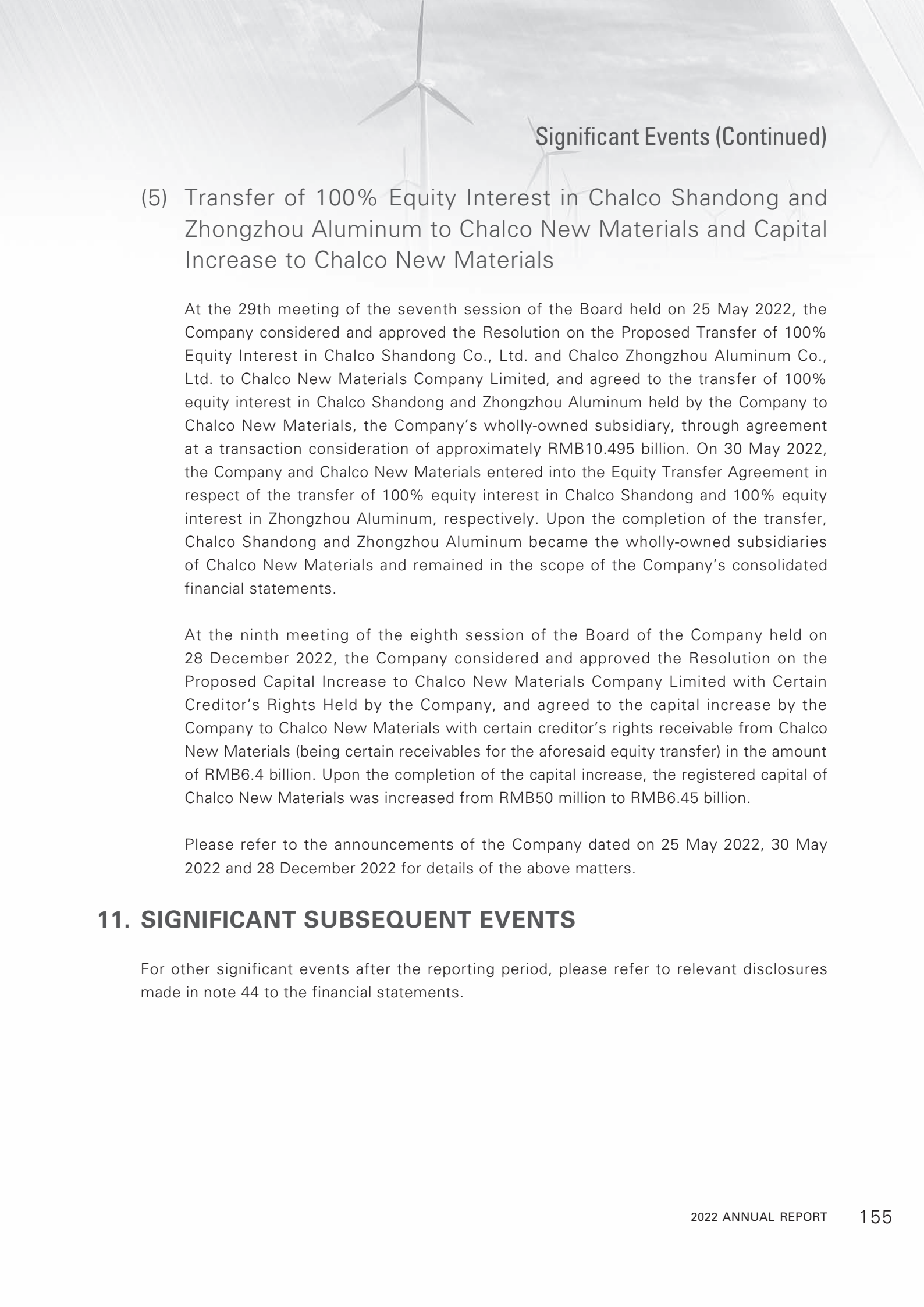
(4) Amendments to the Articles of Association, Rules of Procedures for Shareholders' Meeting, Rules of Procedures for the Board Meeting, and Detailed Implementation Rules for Various Professional Committees of the Board of Directors and System Related to Securities Business

In accordance with the latest revised domestic and foreign securities laws and regulations and the requirements of State-owned Assets Supervision and Administration Commission of the State Council regarding corporate governance, the Company made amendments to the Articles of Association, the Rules of Procedures for Shareholders' Meeting and the Rules of Procedures for the Board Meeting, which were considered and approved at the first meeting of the eighth session of the Board of the Company held on 21 June 2022 and the 2022 second extraordinary general meeting held on 29 September 2022.

Significant Events (Continued)

In addition, the Company made amendments to 11 systems such as the Detailed Implementation Rules for the Nomination Committee of Aluminum Corporation of China Limited (《中國鋁業股份有限公司換屆提名委員會工作細則》), the Detailed Implementation Rules for the Remuneration Committee of Aluminum Corporation of China Limited (《中國鋁業股份有限公司薪酬委員會工作細則》), the Detailed Implementation Rules for the Development and Planning Committee of Aluminum Corporation of China Limited (《中國鋁業股份有限公司發展規劃委員會工作細則》), the Detailed Implementation Rules for the Occupational Health & Safety and Environment Committee of Aluminum Corporation of China Limited (《中國鋁業股份有限公司職業健康安全和環境委員會工作細則》), the Detailed Implementation Rules for the Secretary to the Board of Directors of Aluminum Corporation of China Limited (《中國鋁業股份有限公司董事會秘書工作細則》), the Detailed Implementation Rules for Independent Directors of Aluminum Corporation of China Limited (《中國鋁業股份有限公司獨立董事工作細則》), the Management Measures of Inside Information and Insiders of Aluminum Corporation of China Limited (《中國鋁業股份有限公司內幕信息及知情人管理制度》), the Policies on Liability for Major Errors in Information Disclosure in Annual Reports of Aluminum Corporation of China Limited (《中國鋁業股份有限公司年報信息披露重大差錯責任追究制度》), the Regulations on Holding and Changes of Shares in the Company by Directors, Supervisors and Senior Management Officers of Aluminum Corporation of China Limited (《中國鋁業股份有限公司董事、監事及高級管理人員所持本公司股份及其變動管理制度》), the Administrative Measures for the Information Disclosure of Aluminum Corporation of China Limited (《中國鋁業股份有限公司信息披露管理辦法》) and the Investor Relations Management Measures of Aluminum Corporation of China Limited (《中國鋁業股份有限公司投資者關係管理辦法》), which were considered and approved at the first meeting of the eighth session of the Board of the Company held on 21 June 2022.

Please refer to the announcements of the Company dated 21 June 2022 and 29 September 2022, and the circular dated 12 August 2022 for details of the above matters.



Significant Events (Continued)

(5) Transfer of 100% Equity Interest in Chalco Shandong and Zhongzhou Aluminum to Chalco New Materials and Capital Increase to Chalco New Materials

At the 29th meeting of the seventh session of the Board held on 25 May 2022, the Company considered and approved the Resolution on the Proposed Transfer of 100% Equity Interest in Chalco Shandong Co., Ltd. and Chalco Zhongzhou Aluminum Co., Ltd. to Chalco New Materials Company Limited, and agreed to the transfer of 100% equity interest in Chalco Shandong and Zhongzhou Aluminum held by the Company to Chalco New Materials, the Company's wholly-owned subsidiary, through agreement at a transaction consideration of approximately RMB10.495 billion. On 30 May 2022, the Company and Chalco New Materials entered into the Equity Transfer Agreement in respect of the transfer of 100% equity interest in Chalco Shandong and 100% equity interest in Zhongzhou Aluminum, respectively. Upon the completion of the transfer, Chalco Shandong and Zhongzhou Aluminum became the wholly-owned subsidiaries of Chalco New Materials and remained in the scope of the Company's consolidated financial statements.

At the ninth meeting of the eighth session of the Board of the Company held on 28 December 2022, the Company considered and approved the Resolution on the Proposed Capital Increase to Chalco New Materials Company Limited with Certain Creditor's Rights Held by the Company, and agreed to the capital increase by the Company to Chalco New Materials with certain creditor's rights receivable from Chalco New Materials (being certain receivables for the aforesaid equity transfer) in the amount of RMB6.4 billion. Upon the completion of the capital increase, the registered capital of Chalco New Materials was increased from RMB50 million to RMB6.45 billion.

Please refer to the announcements of the Company dated on 25 May 2022, 30 May 2022 and 28 December 2022 for details of the above matters.

11. SIGNIFICANT SUBSEQUENT EVENTS

For other significant events after the reporting period, please refer to relevant disclosures made in note 44 to the financial statements.

Connected Transactions

Details of significant related party transactions of the Group for the year ended 31 December 2022 are set out in note 38 to the financial statements. Certain related party transactions also constitute connected transactions or continuing connected transactions under Chapter 14A of the Hong Kong Listing Rules and the Company confirms that such related party transactions have complied with applicable disclosure requirements under Chapter 14A of the Hong Kong Listing Rules. The details of the non-exempted one-off connected transactions and non-exempted continuing connected transactions under Chapter 14A of the Hong Kong Listing Rules undertaken by the Group during the reporting period are set out below.

NON-EXEMPTED CONTINUING CONNECTED TRANSACTIONS

Set out below are the annual caps for the continuing connected transactions and the actual transaction amounts incurred by the Group in 2022. For the year ended 31 December 2022, the continuing connected transactions of the Group were calculated on an aggregated basis as follows:

	Aggregated consideration (for the year ended 31 December 2022) <i>(in RMB million)</i>	Percentage of cost of sales (for the year ended 31 December 2022)	Annual cap for the year 2022 <i>(in RMB million)</i>
Purchases of goods or services:			
(A) Comprehensive Social and Logistics Services Agreement (Counterparty: Chinalco)	258	0.09%	500
(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services (Counterparty: Chinalco)	10,954	3.76%	15,400
(C) Mineral Supply Agreement (Counterparty: Chinalco)	255	0.09%	400
(D) Provision of Engineering, Construction and Supervisory Services Agreement (Counterparty: Chinalco)	544	0.19%	6,000
(E) Land Use Rights Leasing Agreement (Counterparty: Chinalco)	1,370	0.47%	1,500
(F) Fixed Assets Leases Framework Agreement (Counterparty: Chinalco)	27	0.009%	320

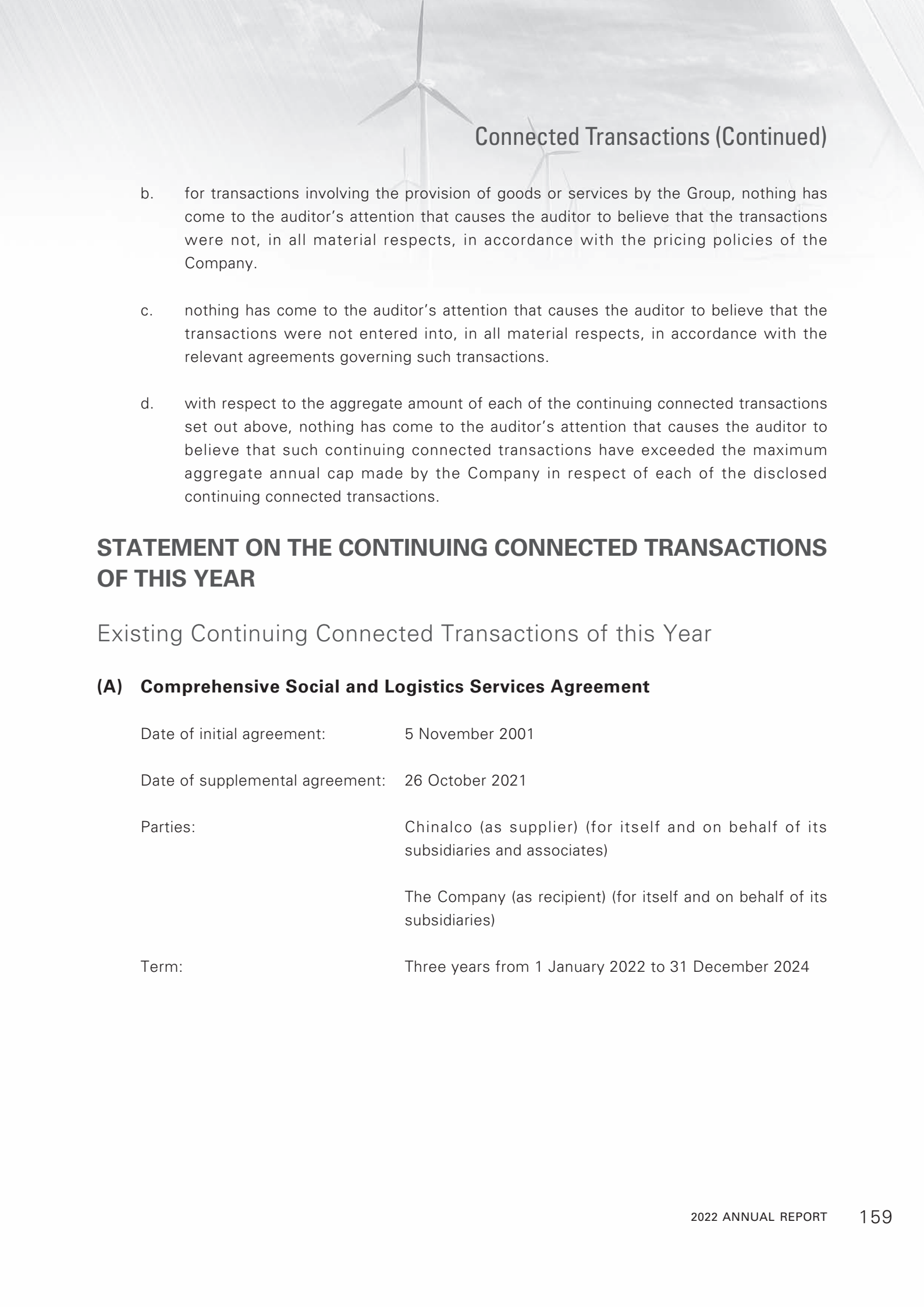
Connected Transactions (Continued)

	Aggregated consideration (for the year ended 31 December 2022) (in RMB million)	Percentage of cost of sales (for the year ended 31 December 2022)	Annual cap for the year 2022 (in RMB million)
(G) Financial Services Agreement (Counterparty: Chinalco Finance Co., Ltd.)			Daily cap of deposit balance
Daily cap of deposit balance (including accrued interests)	11,979	4.12%	12,000
Daily cap of loan balance (including accrued interests)			Daily cap of loan balance
	2,577	0.89%	15,000
Other financial services	0.2	0.0001%	40
(H) Finance Lease Agreement (Counterparty: Chinalco Finance Lease Co., Ltd.)			
Direct leasing	0	–	1,500
Sale and leaseback	0	–	1,000
(I) Factoring Cooperation Agreement (Counterparty: Chinalco Commercial Factoring Co., Ltd.)	0	–	1,000
Sales of goods or services:			
(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services (Counterparty: Chinalco)	36,120	12.41%	37,100
(F) Fixed Assets Leases Framework Agreement (Counterparty: Chinalco)	31	0.01%	300

Connected Transactions (Continued)

During the reporting period, the aforesaid continuing connected transactions have been performed in accordance with relevant agreements as announced. The continuing connected transactions of the Group are mainly the transactions between the Group and Chinalco.

1. The Company has adopted effective internal control measures to daily monitor the continuing connected transactions of the Group. The Audit Committee of the Company continuously conducts strict review on the continuing connected transactions to ensure the completeness and effectiveness of the internal control measures regarding the continuing connected transactions. The independent non-executive Directors of the Company have reviewed the above transactions and confirmed:
 - (i) the transactions have been entered into in the ordinary and usual course of business of the Group;
 - (ii) the terms of the transactions are fair and reasonable, and are in the interest of the Company's shareholders as a whole;
 - (iii) the transactions have been entered into on normal commercial terms or, where there are not sufficient comparable transactions to judge whether they are on normal commercial terms, they are on terms no less favourable than those available to or offered to independent third parties; and
 - (iv) the transactions have been undertaken in accordance with the terms of relevant agreements governing such transactions.
2. Pursuant to Rule 14A.56 of the Hong Kong Listing Rules, the Board engaged the auditor of the Company to conduct a limited assurance engagement on the above continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditor has reported the results of their procedures to the Board stating that:
 - a. nothing has come to the auditor's attention that causes the auditor to believe that the disclosed continuing connected transactions have not been approved by the Board of the Company.



Connected Transactions (Continued)

- b. for transactions involving the provision of goods or services by the Group, nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not, in all material respects, in accordance with the pricing policies of the Company.
- c. nothing has come to the auditor's attention that causes the auditor to believe that the transactions were not entered into, in all material respects, in accordance with the relevant agreements governing such transactions.
- d. with respect to the aggregate amount of each of the continuing connected transactions set out above, nothing has come to the auditor's attention that causes the auditor to believe that such continuing connected transactions have exceeded the maximum aggregate annual cap made by the Company in respect of each of the disclosed continuing connected transactions.

STATEMENT ON THE CONTINUING CONNECTED TRANSACTIONS OF THIS YEAR

Existing Continuing Connected Transactions of this Year

(A) Comprehensive Social and Logistics Services Agreement

Date of initial agreement: 5 November 2001

Date of supplemental agreement: 26 October 2021

Parties: Chinalco (as supplier) (for itself and on behalf of its subsidiaries and associates)

The Company (as recipient) (for itself and on behalf of its subsidiaries)

Term: Three years from 1 January 2022 to 31 December 2024

Connected Transactions (Continued)

Nature of transaction:

- (i) Social services: public security and firefighting services, education and training, schools, hospitals and health facilities, cultural and sports undertakings, newspapers and magazines, broadcasting, printing and other relevant or similar services; and
- (ii) Logistics services: property management, environmental and hygiene service, greenery, nurseries, kindergartens, sanatoriums, canteens, hotels, hostels, offices, public transportation, retirement management and other relevant or similar services.

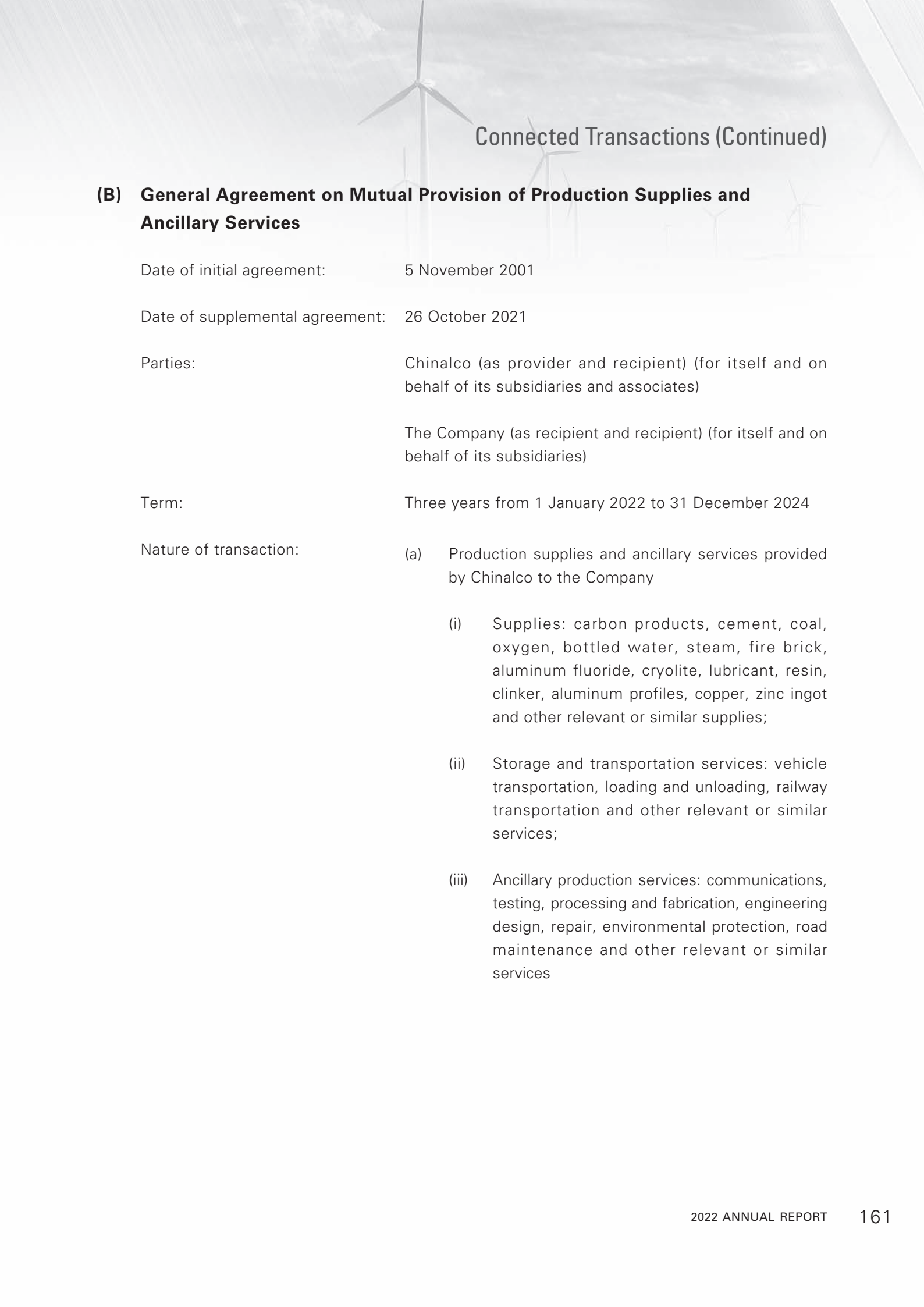
Price determination:

The prices in respect of the relevant services under the Comprehensive Social and Logistics Services Agreement will be determined with reference to comparable local market prices. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

Payment term:

Monthly payment

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company.



Connected Transactions (Continued)

(B) General Agreement on Mutual Provision of Production Supplies and Ancillary Services

Date of initial agreement: 5 November 2001

Date of supplemental agreement: 26 October 2021

Parties: Chinalco (as provider and recipient) (for itself and on behalf of its subsidiaries and associates)

The Company (as recipient and recipient) (for itself and on behalf of its subsidiaries)

Term: Three years from 1 January 2022 to 31 December 2024

Nature of transaction:

- (a) Production supplies and ancillary services provided by Chinalco to the Company
 - (i) Supplies: carbon products, cement, coal, oxygen, bottled water, steam, fire brick, aluminum fluoride, cryolite, lubricant, resin, clinker, aluminum profiles, copper, zinc ingot and other relevant or similar supplies;
 - (ii) Storage and transportation services: vehicle transportation, loading and unloading, railway transportation and other relevant or similar services;
 - (iii) Ancillary production services: communications, testing, processing and fabrication, engineering design, repair, environmental protection, road maintenance and other relevant or similar services

Connected Transactions (Continued)

(b) Production supplies and ancillary services provided by the Company to Chinalco

(i) Products: electrolytic aluminum products (aluminum ingots) and alumina products, zinc ingot, slag, petroleum coke and other relevant or similar supplies;

(ii) Supporting services and ancillary production services: water, electricity, gas and heat supply, measurement, spare parts, repair, testing, transportation, steam and other relevant or similar services

Price determination:

(1) Provision of products and ancillary services to the Company by Chinalco:

(a) Supplies: the price is determined with reference to the comparable local market prices, which refer to prices arrived at with reference to those charged or quoted by at least two independent third parties providing products or services with comparable scale in areas where such products or services were provided under normal trading conditions around the time, and shall not be higher than those charged or quoted by independent third parties;

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white and have three blades each. They are spaced out across the landscape.

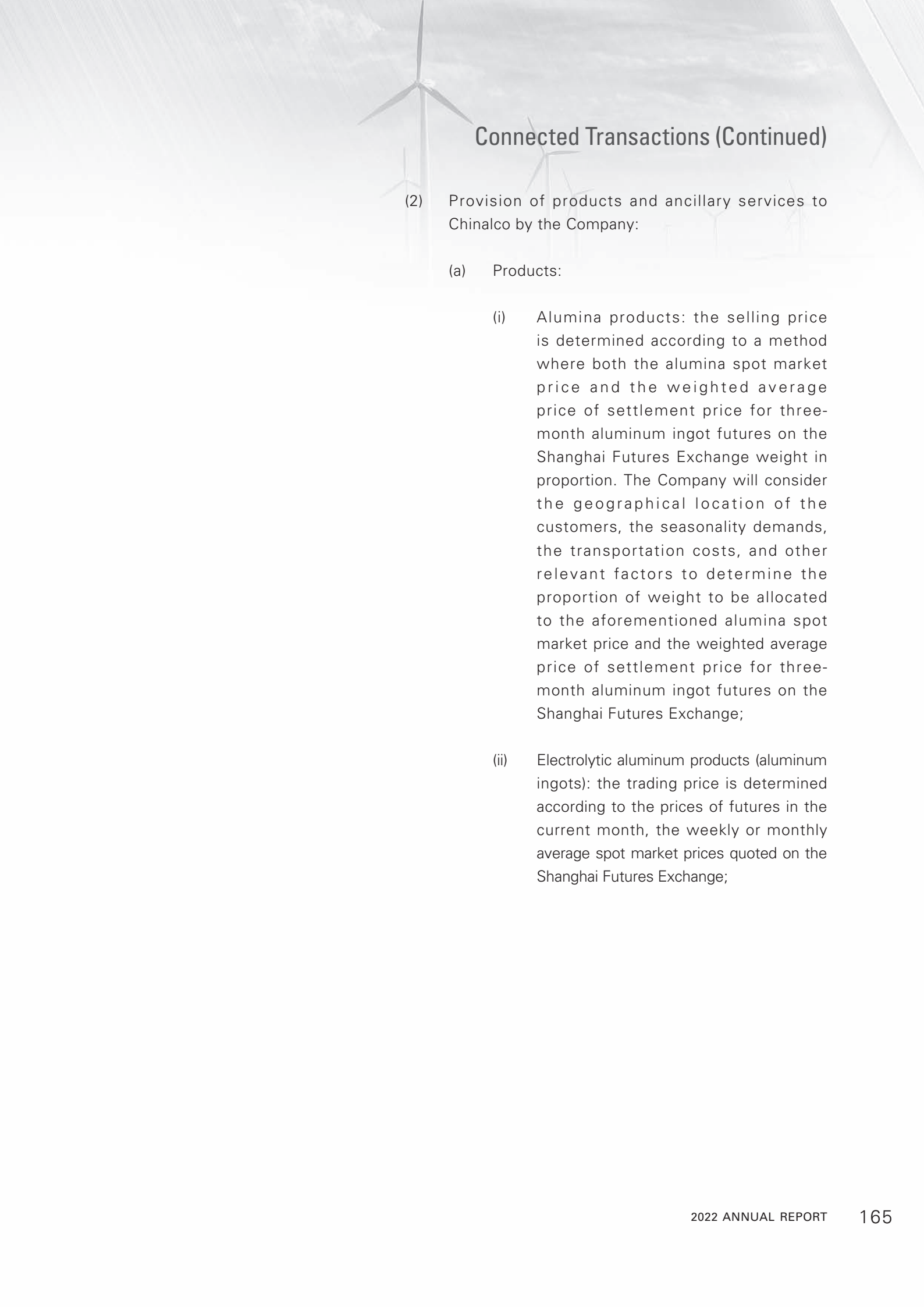
Connected Transactions (Continued)

- (b) Storage and transportation services: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise fuel costs, transportation facility fees, relevant labour costs and etc. The reasonable profit (which shall be not more than 5% of such costs) for the storage and transportation services provided by Chinalco to the Company is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin (being the comparable market profit margin of the relevant products or services) of such services provided by Chinalco to the Company, and shall not be higher than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle;



Connected Transactions (Continued)

- (c) Ancillary production services: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, labour costs, manufacturing fees, other indirect costs and etc. The reasonable profit (which shall be not more than 5% of such costs) for the ancillary production services provided by Chinalco to the Company is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin (being the comparable market profit margin of the relevant products or services) of such services provided by Chinalco to the Company, and shall not be higher than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle.

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white with three blades each, and they are spaced out across the landscape.

Connected Transactions (Continued)

(2) Provision of products and ancillary services to Chinalco by the Company:

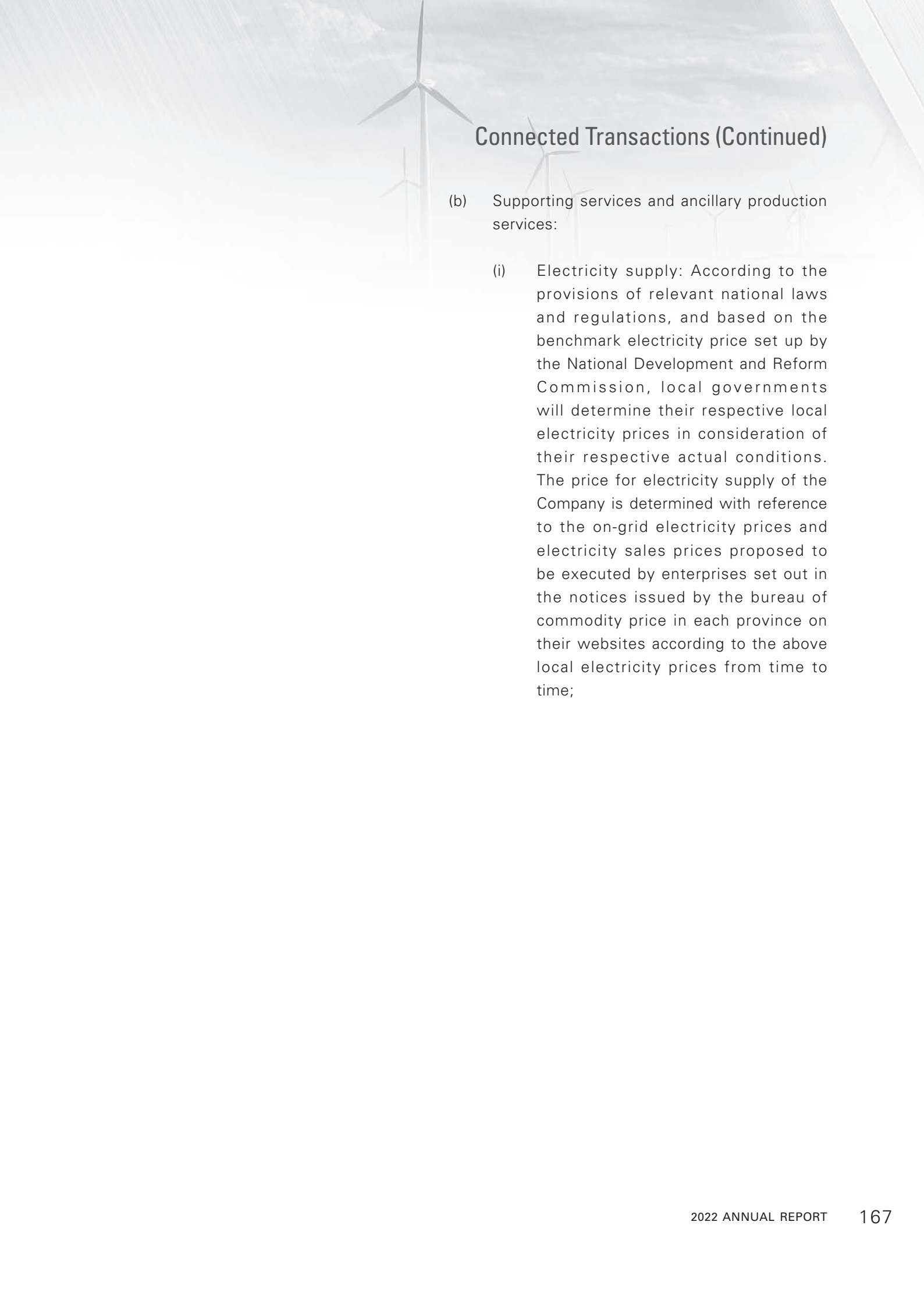
(a) Products:

- (i) Alumina products: the selling price is determined according to a method where both the alumina spot market price and the weighted average price of settlement price for three-month aluminum ingot futures on the Shanghai Futures Exchange weight in proportion. The Company will consider the geographical location of the customers, the seasonality demands, the transportation costs, and other relevant factors to determine the proportion of weight to be allocated to the aforementioned alumina spot market price and the weighted average price of settlement price for three-month aluminum ingot futures on the Shanghai Futures Exchange;
- (ii) Electrolytic aluminum products (aluminum ingots): the trading price is determined according to the prices of futures in the current month, the weekly or monthly average spot market prices quoted on the Shanghai Futures Exchange;



Connected Transactions (Continued)

- (iii) Other products: the price is determined with reference to the contractual price or the comparable local market price. The contractual price refers to a mutually agreed price set by all relevant parties for the provision of products. Such price is equivalent to reasonable costs incurred in providing such products plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, labour costs, manufacturing fees and etc. The reasonable profit (which shall be not more than 5% of such costs) for other products provided by the Company to Chinalco is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin (being the comparable market profit margin of the relevant products or services) of such products provided by the Company to Chinalco, and shall not be lower than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle. While the comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing products with comparable scale in areas where such products were provided under normal trading conditions around that time.

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white with three blades each, and they are spaced out across the landscape. The sky is overcast with soft, grey clouds.

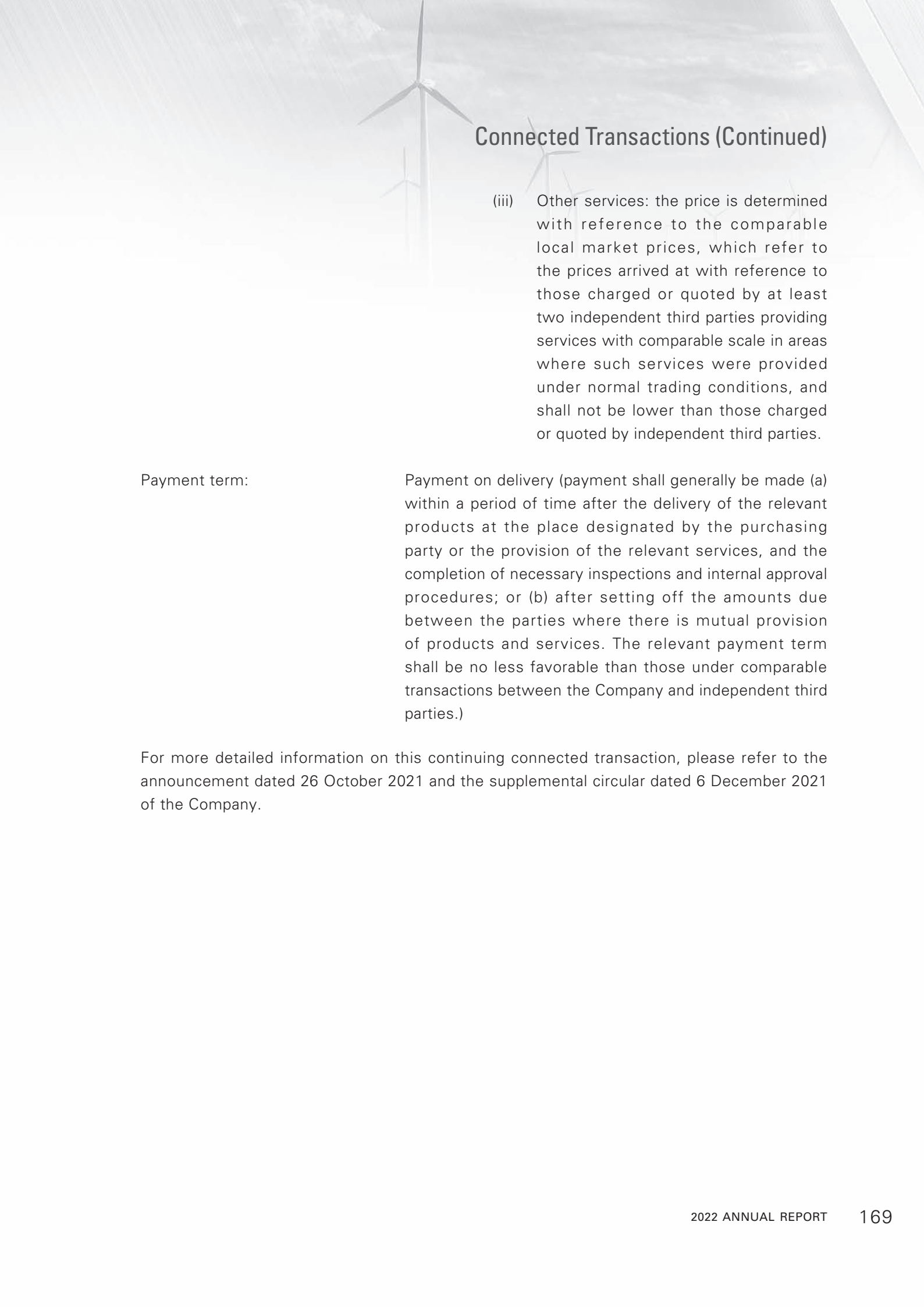
Connected Transactions (Continued)

- (b) Supporting services and ancillary production services:
 - (i) Electricity supply: According to the provisions of relevant national laws and regulations, and based on the benchmark electricity price set up by the National Development and Reform Commission, local governments will determine their respective local electricity prices in consideration of their respective actual conditions. The price for electricity supply of the Company is determined with reference to the on-grid electricity prices and electricity sales prices proposed to be executed by enterprises set out in the notices issued by the bureau of commodity price in each province on their websites according to the above local electricity prices from time to time;



Connected Transactions (Continued)

- (ii) Gas, heat and water supply, measurement, spare parts, repair, testing, transportation, steam: the price is determined with reference to the contractual price, which refers to a mutually agreed price set by all relevant parties for the provision of services. Such price is equivalent to reasonable costs incurred in providing such services plus reasonable profit. Reasonable costs mainly comprise expenses for raw materials, fuel costs, transportation facility fees, labour costs, manufacturing fees and etc. The reasonable profit (which shall be not more than 5% of such costs) for provision of a series of services including gas, heat, water supply and etc. by the Company to Chinalco is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin (being the comparable market profit margin of the relevant products or services) of such services provided by the Company to Chinalco, and shall not be lower than the profit margin charged to independent third parties. Such profit margin is considered reasonable by the Company as following the above principle;

A background image showing several wind turbines in a field under a cloudy sky. The turbines are white with three blades each, and they are spaced out across the landscape.

Connected Transactions (Continued)

- (iii) Other services: the price is determined with reference to the comparable local market prices, which refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions, and shall not be lower than those charged or quoted by independent third parties.

Payment term:

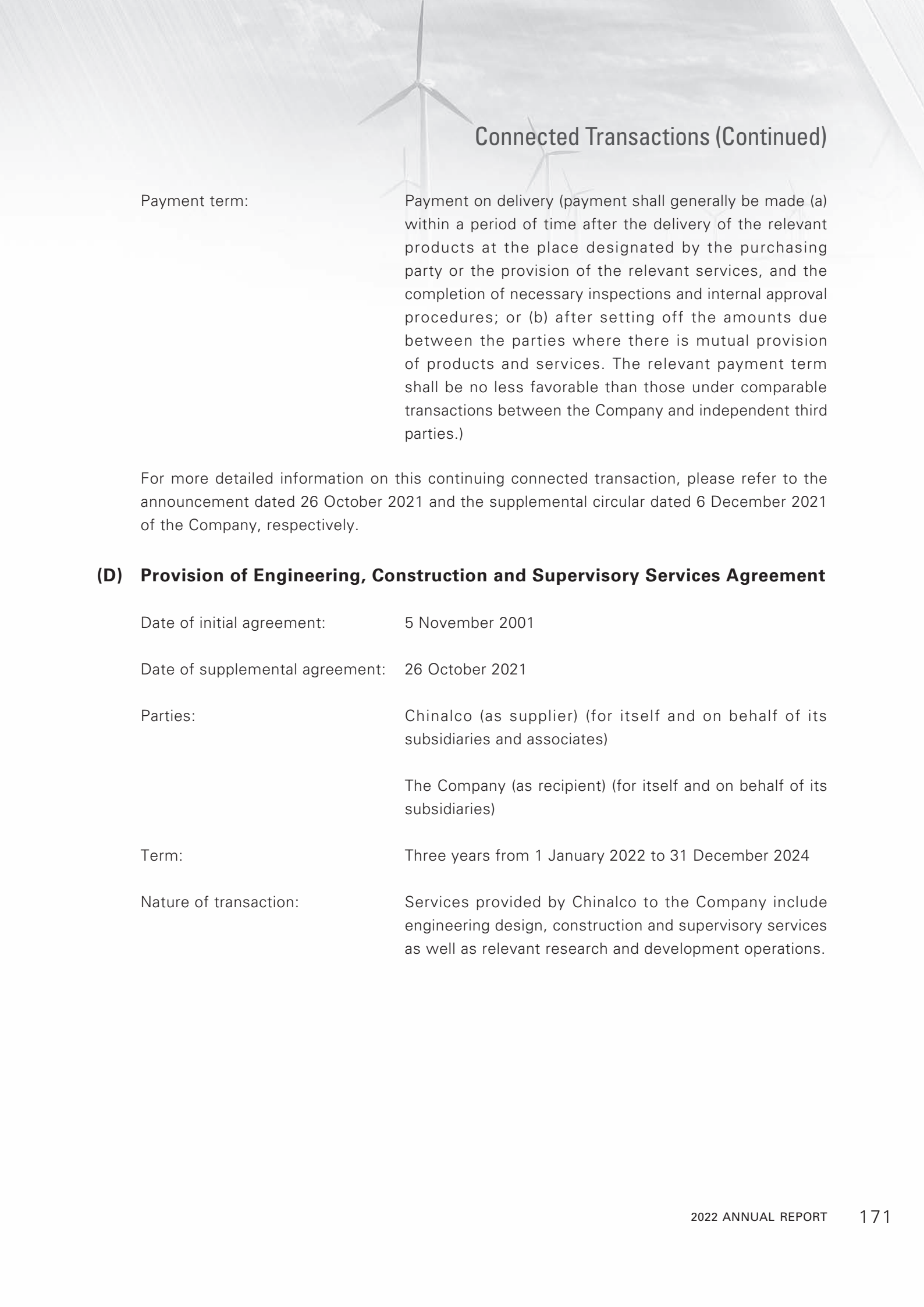
Payment on delivery (payment shall generally be made (a) within a period of time after the delivery of the relevant products at the place designated by the purchasing party or the provision of the relevant services, and the completion of necessary inspections and internal approval procedures; or (b) after setting off the amounts due between the parties where there is mutual provision of products and services. The relevant payment term shall be no less favorable than those under comparable transactions between the Company and independent third parties.)

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company.

Connected Transactions (Continued)

(C) Mineral Supply Agreement

Date of initial agreement:	5 November 2001
Date of supplemental agreement:	26 October 2021
Parties:	Chinalco (as supplier) (for itself and on behalf of its subsidiaries and associates) The Company (as recipient) (for itself and on behalf of its subsidiaries)
Term:	Three years from 1 January 2022 to 31 December 2024
Nature of transaction:	Supply of bauxite and limestone by Chinalco to the Company; before meeting the Company's bauxite and limestone requirements, Chinalco is not entitled to provide bauxite and limestones to any third parties
Price determination:	(i) For the supplies of bauxite and limestone from Chinalco's own mining operations, at reasonable costs incurred in providing the same (which mainly comprise fuel and energy costs, labour costs, security expenses and etc.), plus not more than 5% of such reasonable costs (a buffer for surges in the price level and labour costs, which is arrived at through arm's length negotiation between the Company and Chinalco after taking comprehensive consideration of the normal profit margin (being the comparable market profit margin of the relevant products or services) of such products provided by Chinalco to the Company, and is not higher than the profit margin charged to independent third parties); and (ii) For the supplies of bauxite and limestone from jointly operated mines, at contractual price paid by Chinalco to relevant third parties.



Connected Transactions (Continued)

Payment term:

Payment on delivery (payment shall generally be made (a) within a period of time after the delivery of the relevant products at the place designated by the purchasing party or the provision of the relevant services, and the completion of necessary inspections and internal approval procedures; or (b) after setting off the amounts due between the parties where there is mutual provision of products and services. The relevant payment term shall be no less favorable than those under comparable transactions between the Company and independent third parties.)

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company, respectively.

(D) Provision of Engineering, Construction and Supervisory Services Agreement

Date of initial agreement: 5 November 2001

Date of supplemental agreement: 26 October 2021

Parties: Chinalco (as supplier) (for itself and on behalf of its subsidiaries and associates)

The Company (as recipient) (for itself and on behalf of its subsidiaries)

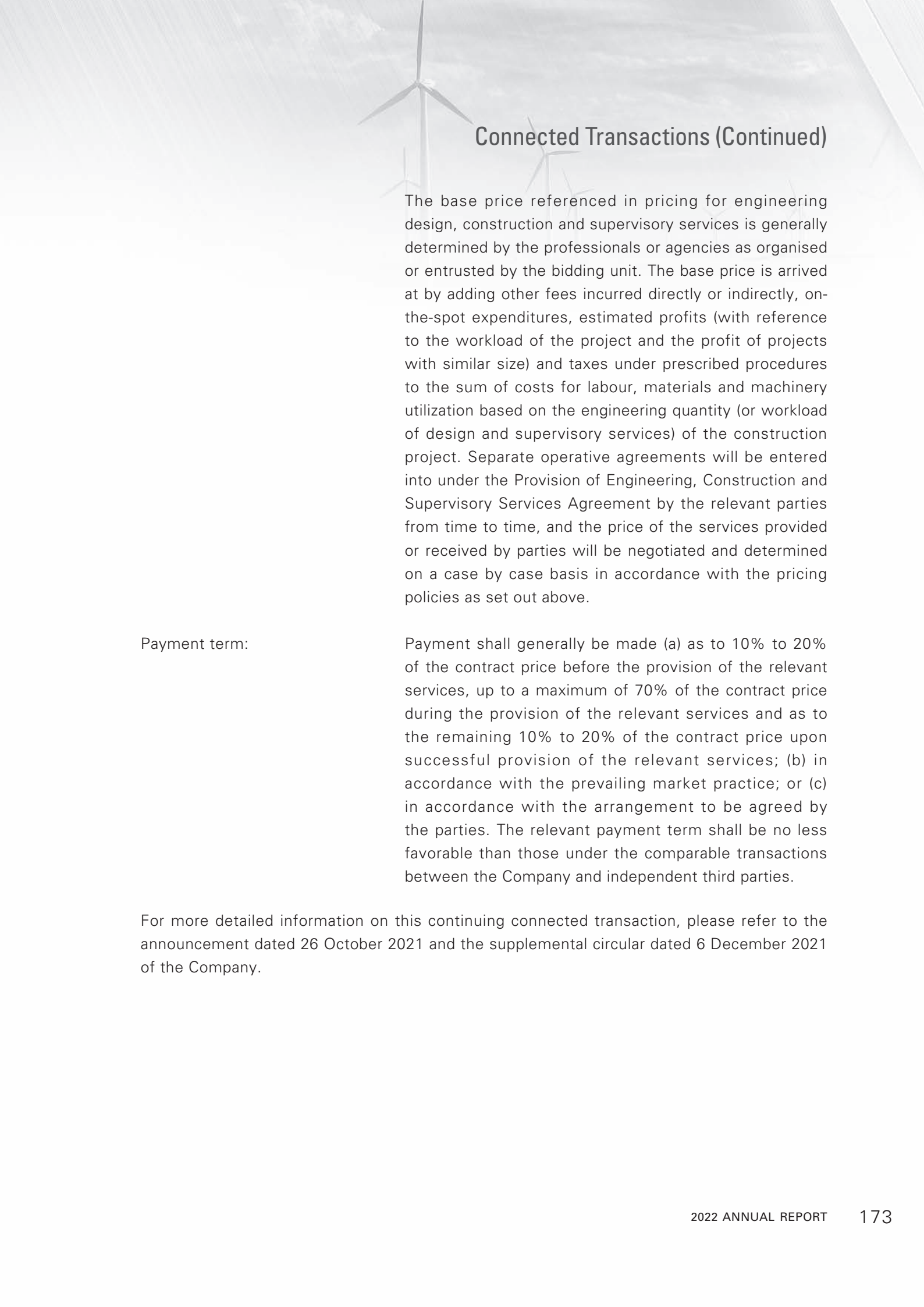
Term: Three years from 1 January 2022 to 31 December 2024

Nature of transaction: Services provided by Chinalco to the Company include engineering design, construction and supervisory services as well as relevant research and development operations.

Connected Transactions (Continued)

Price determination:

- (a) Engineering design: the price is determined by comparable local market prices or through public bidding on a case by case basis. The comparable local market prices refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions. Price determination through public bidding refers to the prices determined in accordance with the public bidding and tender procedure required by the relevant regulatory authorities in the areas where the projects are located. The bidding price shall be controlled within the reasonable range which is close to the base price.
- (b) Construction and supervisory services: the price is determined through public bidding. In such case, the prices will be determined in accordance with the public bidding and tender procedure required by the relevant regulatory authorities in the areas where the projects are located. The bidding price shall be controlled within the reasonable range which is close to the base price.
- (c) Other relevant services: the price is determined with reference to the comparable local market prices, which refer to the prices arrived at with reference to those charged or quoted by at least two independent third parties providing services with comparable scale in areas where such services were provided under normal trading conditions around that time.

The background of the page features a grayscale image of several wind turbines. One turbine is prominently visible in the upper left, with its blades extending towards the top of the frame. Other turbines are visible in the distance, creating a sense of depth. The overall tone is professional and clean.

Connected Transactions (Continued)

The base price referenced in pricing for engineering design, construction and supervisory services is generally determined by the professionals or agencies as organised or entrusted by the bidding unit. The base price is arrived at by adding other fees incurred directly or indirectly, on-the-spot expenditures, estimated profits (with reference to the workload of the project and the profit of projects with similar size) and taxes under prescribed procedures to the sum of costs for labour, materials and machinery utilization based on the engineering quantity (or workload of design and supervisory services) of the construction project. Separate operative agreements will be entered into under the Provision of Engineering, Construction and Supervisory Services Agreement by the relevant parties from time to time, and the price of the services provided or received by parties will be negotiated and determined on a case by case basis in accordance with the pricing policies as set out above.

Payment term:

Payment shall generally be made (a) as to 10% to 20% of the contract price before the provision of the relevant services, up to a maximum of 70% of the contract price during the provision of the relevant services and as to the remaining 10% to 20% of the contract price upon successful provision of the relevant services; (b) in accordance with the prevailing market practice; or (c) in accordance with the arrangement to be agreed by the parties. The relevant payment term shall be no less favorable than those under the comparable transactions between the Company and independent third parties.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company.

Connected Transactions (Continued)

(E) Land Use Rights Leasing Agreement

Date of initial agreement: 5 November 2001

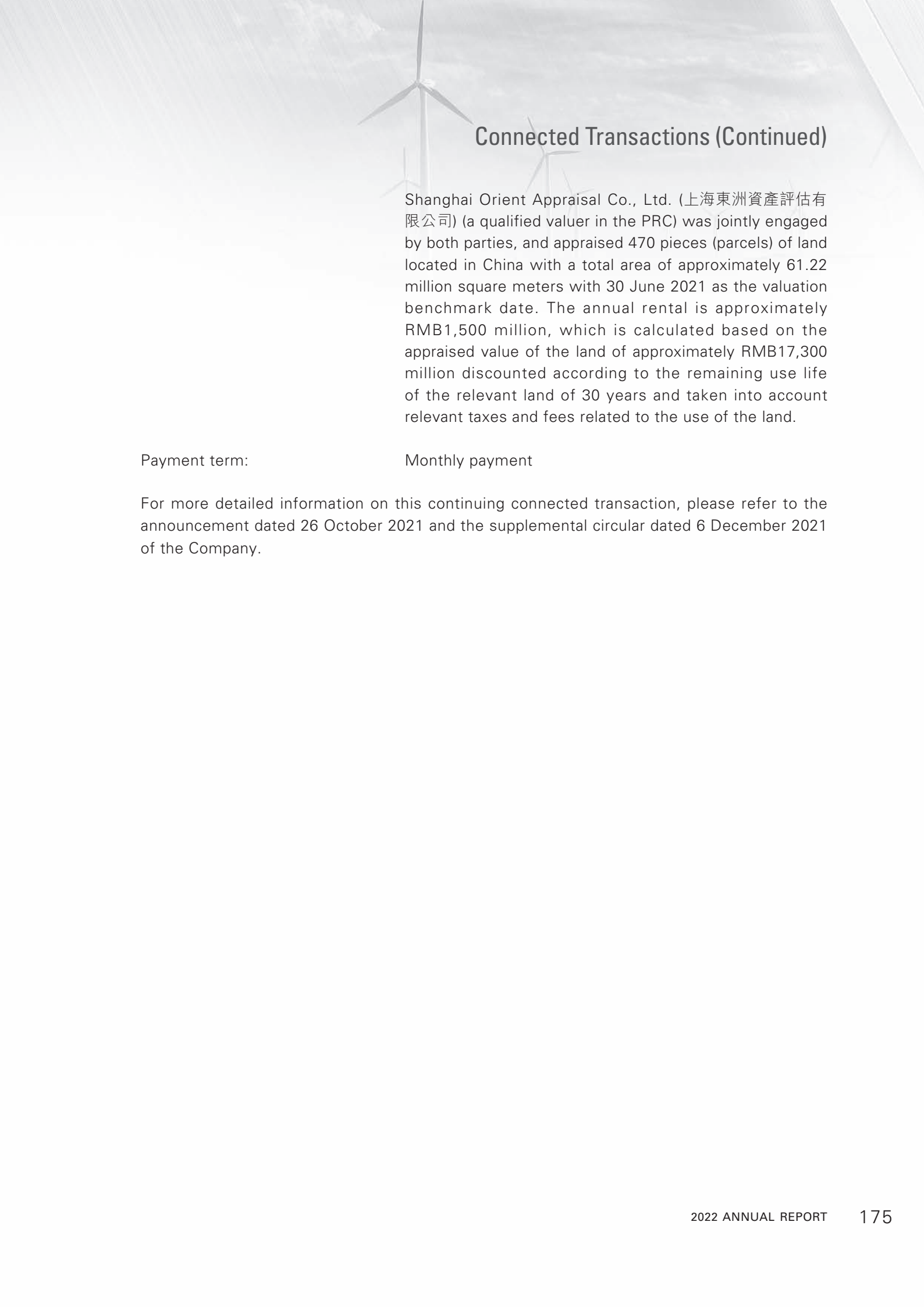
Parties: Chinalco (as lessor) (for itself and on behalf of its subsidiaries and associates)

The Company (as lessee) (for itself and on behalf of its subsidiaries)

Term: 50 years, expiring on 30 June 2051

According to the opinion in the letter from the then independent financial adviser on the Company's renewal of these continuing connected transactions in December 2006, a relatively long lease term of the land is in line with the interest of the Company and the Independent Shareholders and can help reduce the obstacles to the production and business operation of the Group which may arise from replacement. Taking into consideration of (i) the leased land and the scale of facilities built thereon; and (ii) the resources for construction of new production plants and related facilities, replacement is difficult and unfeasible. The Directors believe that the relevant term is normal business practice for similar contracts.

Price determination: The rental shall be negotiated every three years at a rate not higher than the comparable local market prices (i.e. with reference to those charged or quoted by at least two independent third parties in respect of the land use rights with comparable scale in such areas under normal trading conditions around the time, and shall not be higher than those charged or quoted by independent third parties) or the prevailing market rental as determined by an independent valuer, to be engaged by both parties from time to time, through land valuation.

The background of the page features a grayscale image of several wind turbines. One turbine is prominently visible in the upper left, with its blades extending towards the top of the frame. Other turbines are visible in the distance, creating a sense of depth. The overall tone is professional and clean.

Connected Transactions (Continued)

Shanghai Orient Appraisal Co., Ltd. (上海東洲資產評估有限公司) (a qualified valuer in the PRC) was jointly engaged by both parties, and appraised 470 pieces (parcels) of land located in China with a total area of approximately 61.22 million square meters with 30 June 2021 as the valuation benchmark date. The annual rental is approximately RMB1,500 million, which is calculated based on the appraised value of the land of approximately RMB17,300 million discounted according to the remaining use life of the relevant land of 30 years and taken into account relevant taxes and fees related to the use of the land.

Payment term: Monthly payment

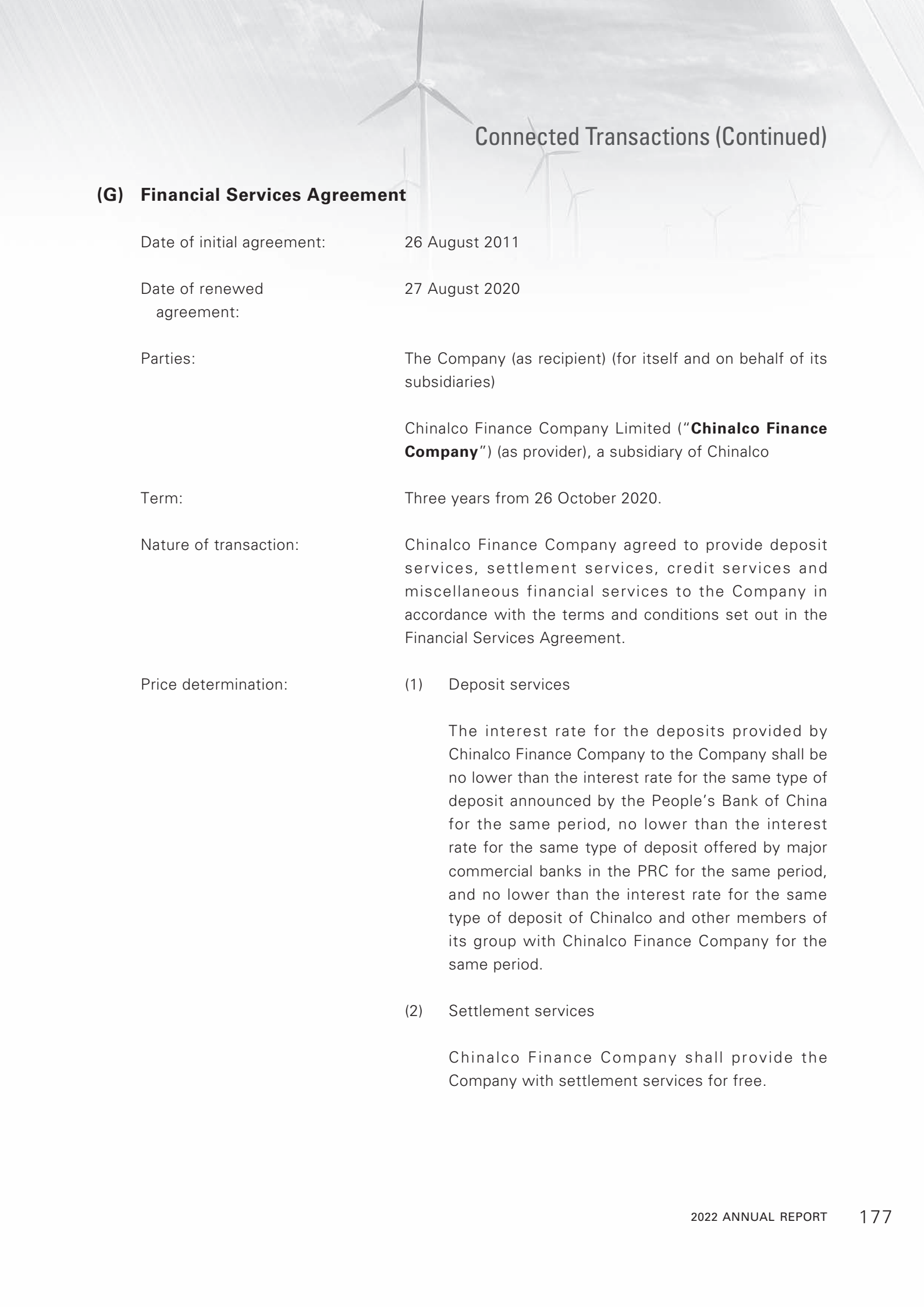
For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company.

Connected Transactions (Continued)

(F) Fixed Assets Leases Framework Agreement

Date of initial agreement:	28 April 2015
Date of renewed agreement:	26 October 2021
Parties:	Chinalco (as both lessor and lessee) (for itself and on behalf of its subsidiaries and associates) The Company (as both lessor and lessee) (for itself and on behalf of its subsidiaries)
Term:	Three years from 1 January 2022 to 31 December 2024
Fixed assets:	Buildings, constructions, machinery, apparatus, transportation as well as equipment, appliance or tools and other fixed assets owned by either party in relation to the production and operation.
Price determination:	The rental shall follow the principles of valuable consideration, openness, fairness and justness, and introduce market competition mechanism. When determining the rental, the parties will also make reference to the prices charged or quoted by at least two independent third parties providing services of similar size and nature under normal trading conditions in the market around that time.
Payment term:	Monthly payment

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the supplemental circular dated 6 December 2021 of the Company.



Connected Transactions (Continued)

(G) Financial Services Agreement

Date of initial agreement: 26 August 2011

Date of renewed agreement: 27 August 2020

Parties: The Company (as recipient) (for itself and on behalf of its subsidiaries)

Chinalco Finance Company Limited ("**Chinalco Finance Company**") (as provider), a subsidiary of Chinalco

Term: Three years from 26 October 2020.

Nature of transaction: Chinalco Finance Company agreed to provide deposit services, settlement services, credit services and miscellaneous financial services to the Company in accordance with the terms and conditions set out in the Financial Services Agreement.

Price determination: (1) Deposit services

The interest rate for the deposits provided by Chinalco Finance Company to the Company shall be no lower than the interest rate for the same type of deposit announced by the People's Bank of China for the same period, no lower than the interest rate for the same type of deposit offered by major commercial banks in the PRC for the same period, and no lower than the interest rate for the same type of deposit of Chinalco and other members of its group with Chinalco Finance Company for the same period.

(2) Settlement services

Chinalco Finance Company shall provide the Company with settlement services for free.

Connected Transactions (Continued)

(3) Credit services

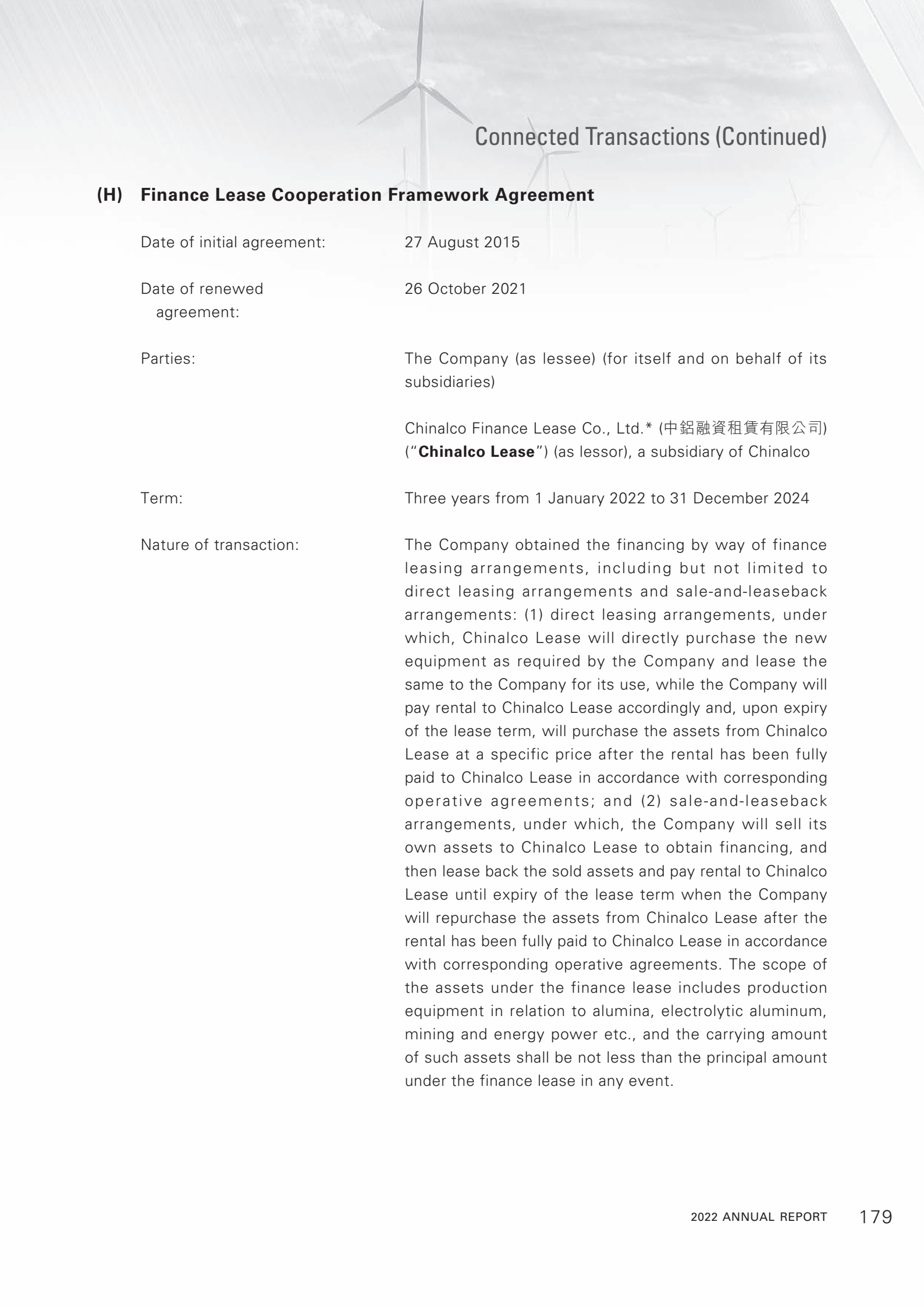
The interest rate of the loans provided by Chinalco Finance Company to the Company shall not exceed the interest rate for the same type of loan provided by Chinalco Finance Company to Chinalco and other members of its group for the same period, or the interest rate for the same type of loan provided to the Company by major commercial banks in the PRC for the same period, whichever is lower.

Chinalco Finance Company shall provide loans to the Company on normal commercial terms and no security is to be granted by the Company over its assets.

(4) Miscellaneous financial services

The fees charged by Chinalco Finance Company for the provision of miscellaneous financial services to the Company shall be in accordance with the relevant benchmark rates for such type of service determined by the People's Bank of China or China Banking and Insurance Regulatory Commission. In addition, such fees shall not exceed those charged by major commercial banks in the PRC for the provision of the same type of financial service for the same period, or those charged by Chinalco Finance Company for the provision of the same type of financial service to Chinalco and other members of its group, whichever is lower.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 27 August 2020, and the circular dated 30 September 2020 of the Company.



Connected Transactions (Continued)

(H) Finance Lease Cooperation Framework Agreement

Date of initial agreement:	27 August 2015
Date of renewed agreement:	26 October 2021
Parties:	The Company (as lessee) (for itself and on behalf of its subsidiaries) Chinalco Finance Lease Co., Ltd.* (中鋁融資租賃有限公司) (“Chinalco Lease”) (as lessor), a subsidiary of Chinalco
Term:	Three years from 1 January 2022 to 31 December 2024
Nature of transaction:	The Company obtained the financing by way of finance leasing arrangements, including but not limited to direct leasing arrangements and sale-and-leaseback arrangements: (1) direct leasing arrangements, under which, Chinalco Lease will directly purchase the new equipment as required by the Company and lease the same to the Company for its use, while the Company will pay rental to Chinalco Lease accordingly and, upon expiry of the lease term, will purchase the assets from Chinalco Lease at a specific price after the rental has been fully paid to Chinalco Lease in accordance with corresponding operative agreements; and (2) sale-and-leaseback arrangements, under which, the Company will sell its own assets to Chinalco Lease to obtain financing, and then lease back the sold assets and pay rental to Chinalco Lease until expiry of the lease term when the Company will repurchase the assets from Chinalco Lease after the rental has been fully paid to Chinalco Lease in accordance with corresponding operative agreements. The scope of the assets under the finance lease includes production equipment in relation to alumina, electrolytic aluminum, mining and energy power etc., and the carrying amount of such assets shall be not less than the principal amount under the finance lease in any event.

Connected Transactions (Continued)

At any time within the validity period of the Finance Lease Cooperation Framework Agreement, the financing balance obtained by the Company from Chinalco Lease shall not exceed RMB2.5 billion. The financing balance represents the aggregate principal amount outstanding under the Finance Lease Cooperation Framework Agreement plus any lease interest, commission fees and other expenses, if any, incurred from the beginning of that year to that exact point of time.

Price determination:

The financing costs mainly include lease interest and commission fees, etc. The costs of finance leasing services provided by Chinalco Lease shall not be higher than the financing costs of services of the same or similar nature provided by independent third party finance lease companies in the PRC (the after-tax internal rate of return shall prevail). The lease interest shall be determined with reference to the benchmark interest rates for RMB denominated loans published by the People's Bank of China on a regular basis; if such rates are not available, then the lease interest shall be determined with reference to the rate charged or quoted by other major finance organisation for the same or similar service.

Payment term:

The Company and Chinalco Lease will, based on the actual cash flows, design flexible payment methods, including but not limited to payment of principal in equal instalments on a quarterly basis, payment of principal and interest in equal instalments on a quarterly basis, payment of principal in unequal instalments on a quarterly basis, payment of principal in equal instalments on a semi-annual basis, payment of principal and interest in equal instalments on an annual basis, etc.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 and the circular dated 4 November 2021 of the Company.

Connected Transactions (Continued)

(I) Factoring Cooperation Framework Agreement

Date of initial agreement:	27 September 2017
Date of renewed agreement:	26 October 2021
Parties:	The Company (as recipient) (for itself and on behalf of its subsidiaries) Chinalco Commercial Factoring Co., Ltd. * (中鋁商業保理有限公司) ("Chinalco Factoring") (as provider), a subsidiary of Chinalco
Term:	Three years from 1 January 2022 to 31 December 2024
Nature of transaction:	Chinalco Factoring will provide factoring financing services to the Company in accordance with the terms and conditions of the Factoring Cooperation Framework Agreement. In particular, the Company will obtain funds by way of accounts receivable transfer, which means the Company will transfer its accounts receivable to Chinalco Factoring and thereby obtain factoring financing from Chinalco Factoring. When becoming due, such accounts receivable as transferred shall be paid by their debtors to Chinalco Factoring or be repurchased by the Company from Chinalco Factoring.

Connected Transactions (Continued)

At any time during the valid period of the Factoring Cooperation Framework Agreement, the balance (including factoring prepayment, factoring fee and factoring handling charges) of factoring business between the Company and Chinalco Factoring shall not exceed RMB1 billion.

Price determination:

The financing costs for the services to be provided by Chinalco Factoring to the Company shall not be higher than the average financing costs charged by independent third party factoring companies in the PRC for similar services.

Payment term:

The Company and Chinalco Factoring shall design the payment methods on a flexible basis according to the specific factoring services, including but not limited to payment by the financing party to accounts receivable or by debtors to accounts receivable or both.

For more detailed information on this continuing connected transaction, please refer to the announcement dated 26 October 2021 of the Company.

ONE-OFF CONNECTED TRANSACTIONS (NON-EXEMPTED) RELATED TO ACQUISITION AND DISPOSAL OF ASSETS

1. Acquisition of 19% Equity Interests in Yunnan Aluminum by the Company

At the second meeting of the eighth session of the Board of the Company held on 24 July 2022, the Resolution in relation to the Acquisition of 19% Equity Interests in Yunnan Aluminum Co., Ltd. by the Company was considered and passed, whereby the Company was approved to acquire 19% equity interests (i.e. 658,911,907 shares) in Yunnan Aluminum in cash held by Yunnan Metallurgical by way of agreement. The consideration of the transaction was calculated based on the arithmetic average of the daily weighted average price of the shares of Yunnan Aluminum for the 30 trading days preceding the disclosure date of the announcement of the Board resolution through which the Board considered and approved the transaction (i.e. 25 July 2022), and the transfer price was RMB10.11 per share, and the total consideration of the transaction was approximately RMB6,662 million. On the same date, the Company and Yunnan Metallurgical entered into a shares transfer agreement accompanied with operative clauses. On 29 September 2022, the aforesaid acquisition of shares was considered and approved at the 2022 second extraordinary general meeting of the Company. On 23 November 2022, the Company received the Confirmation of Security Transfer Registration issued by China Securities Depository and Clearing Co., Limited, and the transfer registration procedures for 658,911,907 shares of Yunnan Aluminum acquired by the Company were completed on 22 November 2022. Upon the completion of the acquisition, the Company holds 29.10% equity interests in Yunnan Aluminum and becomes the controlling shareholder of Yunnan Aluminum. The financial results of Yunnan Aluminum have been consolidated into the financial statements of the Company.

Yunnan Metallurgical is a subsidiary of Chinalco, the controlling shareholder of the Company, therefore, Yunnan Metallurgical is a connected person of the Company under the Hong Kong Listing Rules. Meanwhile, as the highest applicable percentage ratio in respect of the above share transfer transaction exceeds 25% but is less than 100%, the transaction constitutes a major transaction under Chapter 14 of the Hong Kong Listing Rules and a connected transaction under Chapter 14A of the Hong Kong Listing Rules. Accordingly, the transaction is subject to reporting, announcement and independent shareholders' approval requirements under Chapter 14 and Chapter 14A of the Hong Kong Listing Rules.

Please refer to the announcements of the Company dated 24 July 2022, 29 September 2022 and 23 November 2022 and the supplemental circular dated 14 September 2022 for details of the above matters.

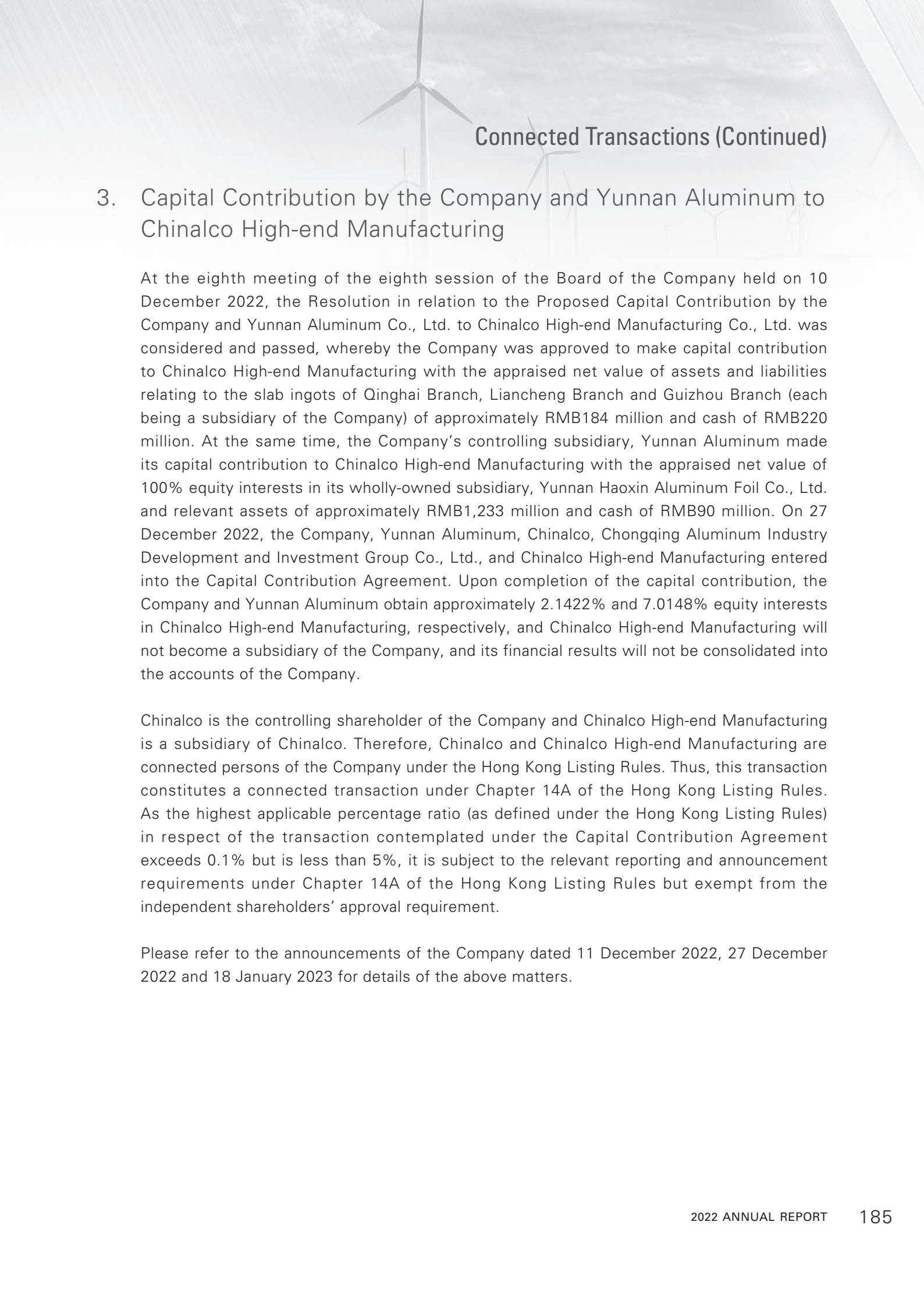
Connected Transactions (Continued)

2. Acquisition of 100% Equity Interests in Pingguo Aluminum by the Company

At the fourth meeting of the eighth session of the Board of the Company held on 23 August 2022, the Resolution in relation to the Proposed Acquisition of 100% Equity Interests in Pingguo Aluminum Co., Ltd.* (平果鋁業有限公司) was considered and passed, whereby the Company was approved to acquire 100% equity interests in Pingguo Aluminum held by Chinalco in cash by way of agreement. The consideration of the transaction was approximately RMB1,887 million. On the same date, the Company and Chinalco entered into a shares transfer agreement accompanied with operative clauses. On 29 September 2022, the aforesaid equity acquisition was considered and approved at the 2022 second extraordinary general meeting of the Company. Upon the completion of the acquisition, the Company holds 100% equity interests in Pingguo Aluminum. The financial results of Pingguo Aluminum have been consolidated into the financial statements of the Company.

Chinalco is the controlling shareholder of the Company, and a connected person of the Company under the Hong Kong Listing Rules, therefore the transaction constitutes a connected transaction under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio (as defined under the Hong Kong Listing Rules) in respect of the transaction contemplated under the shares transfer agreement exceeds 0.1% but is less than 5%, it is subject to the relevant reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but exempt from the independent shareholders' approval requirement. In accordance with the relevant requirements of the Rules Governing the Listing of Stocks on Shanghai Stock Exchange, the acquisition of 100% equity interests in Pingguo Aluminum by the Company is subject to the approval of the general meeting.

Please refer to the announcements of the Company dated 23 August 2022 and 29 September 2022 and the supplemental circular dated 14 September 2022 for details of the above matters.



Connected Transactions (Continued)

3. Capital Contribution by the Company and Yunnan Aluminum to Chinalco High-end Manufacturing

At the eighth meeting of the eighth session of the Board of the Company held on 10 December 2022, the Resolution in relation to the Proposed Capital Contribution by the Company and Yunnan Aluminum Co., Ltd. to Chinalco High-end Manufacturing Co., Ltd. was considered and passed, whereby the Company was approved to make capital contribution to Chinalco High-end Manufacturing with the appraised net value of assets and liabilities relating to the slab ingots of Qinghai Branch, Liancheng Branch and Guizhou Branch (each being a subsidiary of the Company) of approximately RMB184 million and cash of RMB220 million. At the same time, the Company's controlling subsidiary, Yunnan Aluminum made its capital contribution to Chinalco High-end Manufacturing with the appraised net value of 100% equity interests in its wholly-owned subsidiary, Yunnan Haoxin Aluminum Foil Co., Ltd. and relevant assets of approximately RMB1,233 million and cash of RMB90 million. On 27 December 2022, the Company, Yunnan Aluminum, Chinalco, Chongqing Aluminum Industry Development and Investment Group Co., Ltd., and Chinalco High-end Manufacturing entered into the Capital Contribution Agreement. Upon completion of the capital contribution, the Company and Yunnan Aluminum obtain approximately 2.1422% and 7.0148% equity interests in Chinalco High-end Manufacturing, respectively, and Chinalco High-end Manufacturing will not become a subsidiary of the Company, and its financial results will not be consolidated into the accounts of the Company.

Chinalco is the controlling shareholder of the Company and Chinalco High-end Manufacturing is a subsidiary of Chinalco. Therefore, Chinalco and Chinalco High-end Manufacturing are connected persons of the Company under the Hong Kong Listing Rules. Thus, this transaction constitutes a connected transaction under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio (as defined under the Hong Kong Listing Rules) in respect of the transaction contemplated under the Capital Contribution Agreement exceeds 0.1% but is less than 5%, it is subject to the relevant reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but exempt from the independent shareholders' approval requirement.

Please refer to the announcements of the Company dated 11 December 2022, 27 December 2022 and 18 January 2023 for details of the above matters.

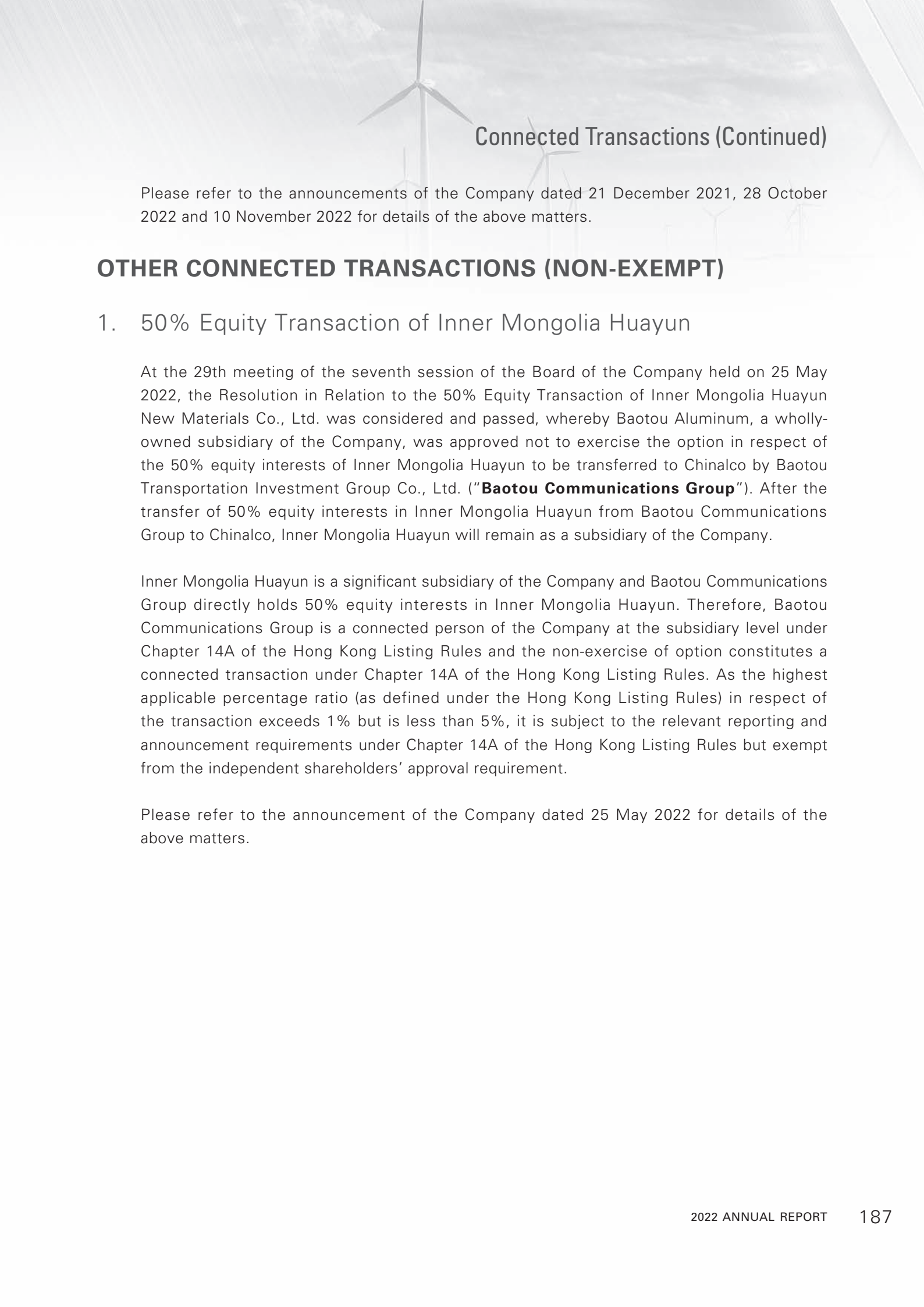
Connected Transactions (Continued)

4. Participation of the Company in the Establishment of Chinalco Green and Low-Carbon Fund

At the 24th meeting of the seventh session of the Board of the Company held on 21 December 2021, the Resolution on Participation of the Company in the Establishment of Chinalco Green and Low-Carbon Fund was considered and passed, whereby the Company was approved to act as a limited partner to jointly establish Chinalco Suihe Nonferrous Metals Green and Low-carbon Innovation Development Fund (Beijing) Partnership (Limited Partnership) (the “**Fund**” or “**Partnership**”) with its controlling shareholder, Chinalco and its subsidiaries, including Chinalco Capital Holdings Co., Ltd. (“**Chinalco Capital Holdings**”), China Copper Co., Ltd. (“**China Copper**”), and Chinalco High-end Manufacturing, and ABC Financial Asset Investment Co., Ltd. (“**ABC Investment**”) and its general partners, including Chinalco Innovation Development Equity Investment Fund Management (Beijing) Co., Ltd. (“**Chinalco Innovation Investment**”) and ABC Capital Management Co., Ltd. (“**ABC Capital**”). The overall size of the Fund is RMB6 billion. The Company intended to contribute RMB1.02 billion, accounting for 17%. Upon establishment, the Fund would not become a subsidiary of the Company and its financial results would not be consolidated in the accounts of the Company.

Subsequently, Chinalco (including its subsidiaries) made adjustments to the subscribed capital contribution among its internal relevant entities, but kept its total subscribed capital contribution unchanged. The amount and proportion of capital contribution of the Company remained unchanged. On 28 October 2022, the Company entered into the Partnership Agreement of Chinalco Suihe Nonferrous Metals Green and Low-carbon Innovation Development Fund (Beijing) Partnership (Limited Partnership) with Chinalco Capital Holdings, China Copper, Chinalco High-end Manufacturing, ABC Investment, Chinalco Innovation Investment and ABC Capital. On the same day, the partnership completed the business registration procedures and on 9 November 2022, the Fund completed the filing procedures in the Asset Management Association of China.

Chinalco is the controlling shareholder of the Company, Chinalco Capital Holdings, China Copper, Chinalco High-end Manufacturing and Chinalco Innovation Investment are all subsidiaries of Chinalco, therefore each of the aforesaid companies is a connected person of the Company under Chapter 14A of the Hong Kong Listing Rules. Thus, the aforementioned transaction constitutes a connected transaction of the Company under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio (as defined under the Hong Kong Listing Rules) in respect of the transaction contemplated under the Partnership Agreement exceeds 0.1% but is less than 5%, it is subject to the relevant reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but exempt from the independent shareholders’ approval requirement.



Connected Transactions (Continued)

Please refer to the announcements of the Company dated 21 December 2021, 28 October 2022 and 10 November 2022 for details of the above matters.

OTHER CONNECTED TRANSACTIONS (NON-EXEMPT)

1. 50% Equity Transaction of Inner Mongolia Huayun

At the 29th meeting of the seventh session of the Board of the Company held on 25 May 2022, the Resolution in Relation to the 50% Equity Transaction of Inner Mongolia Huayun New Materials Co., Ltd. was considered and passed, whereby Baotou Aluminum, a wholly-owned subsidiary of the Company, was approved not to exercise the option in respect of the 50% equity interests of Inner Mongolia Huayun to be transferred to Chinalco by Baotou Transportation Investment Group Co., Ltd. ("**Baotou Communications Group**"). After the transfer of 50% equity interests in Inner Mongolia Huayun from Baotou Communications Group to Chinalco, Inner Mongolia Huayun will remain as a subsidiary of the Company.

Inner Mongolia Huayun is a significant subsidiary of the Company and Baotou Communications Group directly holds 50% equity interests in Inner Mongolia Huayun. Therefore, Baotou Communications Group is a connected person of the Company at the subsidiary level under Chapter 14A of the Hong Kong Listing Rules and the non-exercise of option constitutes a connected transaction under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio (as defined under the Hong Kong Listing Rules) in respect of the transaction exceeds 1% but is less than 5%, it is subject to the relevant reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but exempt from the independent shareholders' approval requirement.

Please refer to the announcement of the Company dated 25 May 2022 for details of the above matters.

Connected Transactions (Continued)

2. Provision of Entrusted Loan for Inner Mongolia Huayun by the Company

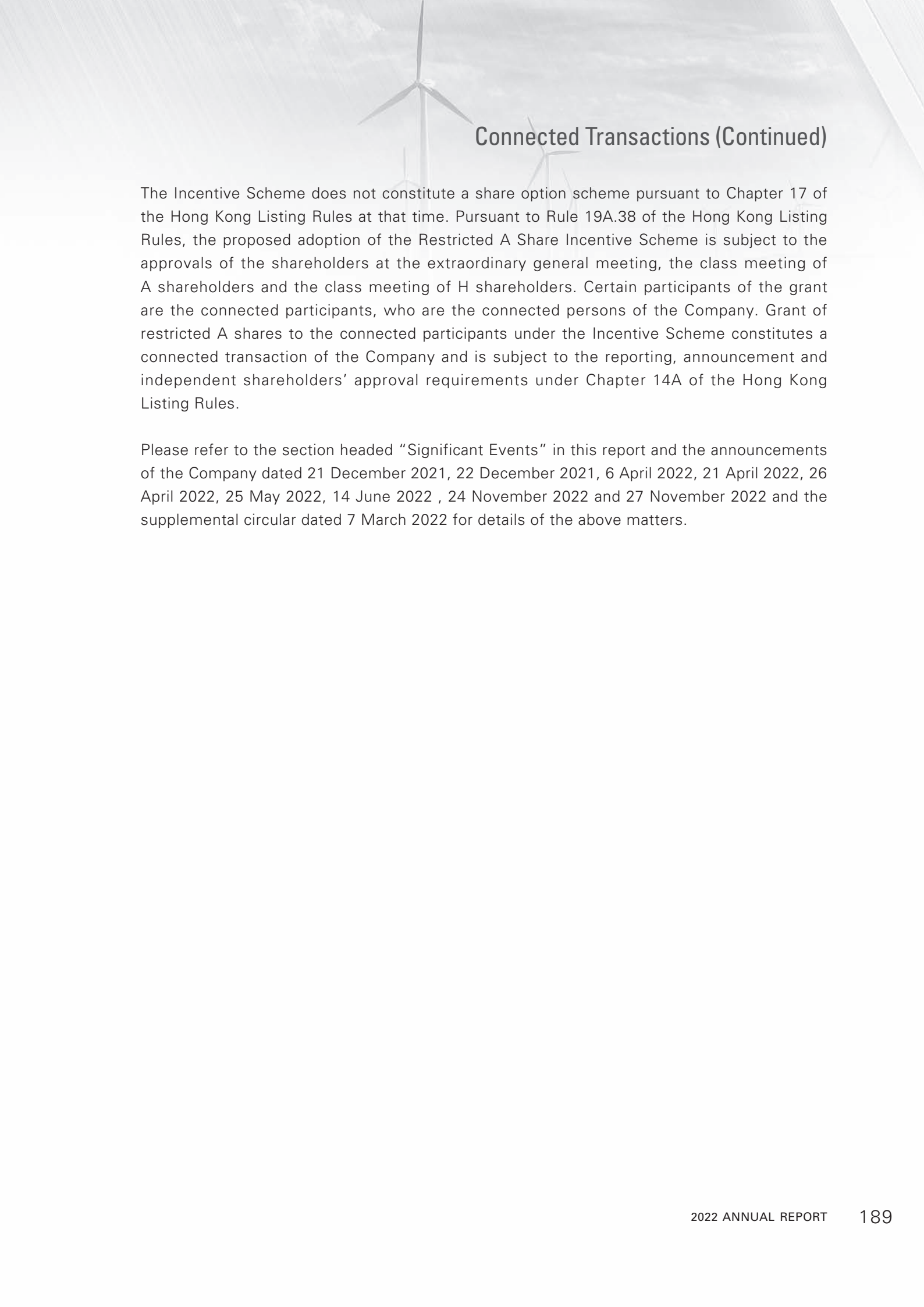
At the fifth meeting of the eighth session of the Board of the Company held on 29 September 2022, the Resolution in Relation to the Proposed Continuing Provision of Entrusted Loan for Inner Mongolia Huayun New Materials Co., Ltd. was considered and passed. On the same day, the Company entered into the Entrusted Loan Agreement with Beijing Branch of China Guangfa Bank Co., Ltd. ("**Guangfa Bank Beijing Branch**") and Inner Mongolia Huayun, pursuant to which, the Company would provide a loan of RMB2 billion to Inner Mongolia Huayun through Guangfa Bank Beijing Branch for a term of 5 years (from 10 October 2022 to 8 October 2027) at a loan interest rate of 5.35%.

Chinalco, the controlling shareholder of the Company, holds 50% equity interests in Inner Mongolia Huayun and therefore Inner Mongolia Huayun is a connected person of the Company under the Hong Kong Listing Rules. Thus, the transaction constitutes a connected transaction under Chapter 14A of the Hong Kong Listing Rules. As the highest applicable percentage ratio (as defined under the Hong Kong Listing Rules) in respect of the transaction contemplated under the Entrusted Loan Agreement exceeds 0.1% but is less than 5%, it is subject to the relevant reporting and announcement requirements under Chapter 14A of the Hong Kong Listing Rules but exempt from the independent shareholders' approval requirement.

Please refer to the announcement of the Company dated 29 September 2022 for details of the above matters.

3. Grant of Restricted A Shares to Connected Participants

The Company has implemented 2021 Restricted Shares Incentive Scheme, in which certain participants are connected participants, being connected persons of the Company under the Hong Kong Listing Rules. The grant of restricted A shares by the Company to the connected participants under the Incentive Scheme would constitute a connected transaction under Chapter 14A of the Hong Kong Listing Rules. A total of 6,212,500 restricted A shares were granted by the Company to 30 connected persons.

The background of the page features a grayscale image of several wind turbines. One large turbine is prominent in the upper left, with its blades extending towards the top of the frame. Other smaller turbines are visible in the distance, creating a sense of depth. The overall tone is professional and clean.

Connected Transactions (Continued)

The Incentive Scheme does not constitute a share option scheme pursuant to Chapter 17 of the Hong Kong Listing Rules at that time. Pursuant to Rule 19A.38 of the Hong Kong Listing Rules, the proposed adoption of the Restricted A Share Incentive Scheme is subject to the approvals of the shareholders at the extraordinary general meeting, the class meeting of A shareholders and the class meeting of H shareholders. Certain participants of the grant are the connected participants, who are the connected persons of the Company. Grant of restricted A shares to the connected participants under the Incentive Scheme constitutes a connected transaction of the Company and is subject to the reporting, announcement and independent shareholders' approval requirements under Chapter 14A of the Hong Kong Listing Rules.

Please refer to the section headed "Significant Events" in this report and the announcements of the Company dated 21 December 2021, 22 December 2021, 6 April 2022, 21 April 2022, 26 April 2022, 25 May 2022, 14 June 2022, 24 November 2022 and 27 November 2022 and the supplemental circular dated 7 March 2022 for details of the above matters.

Independent Auditors' Report

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)



羅兵咸永道

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

OPINION

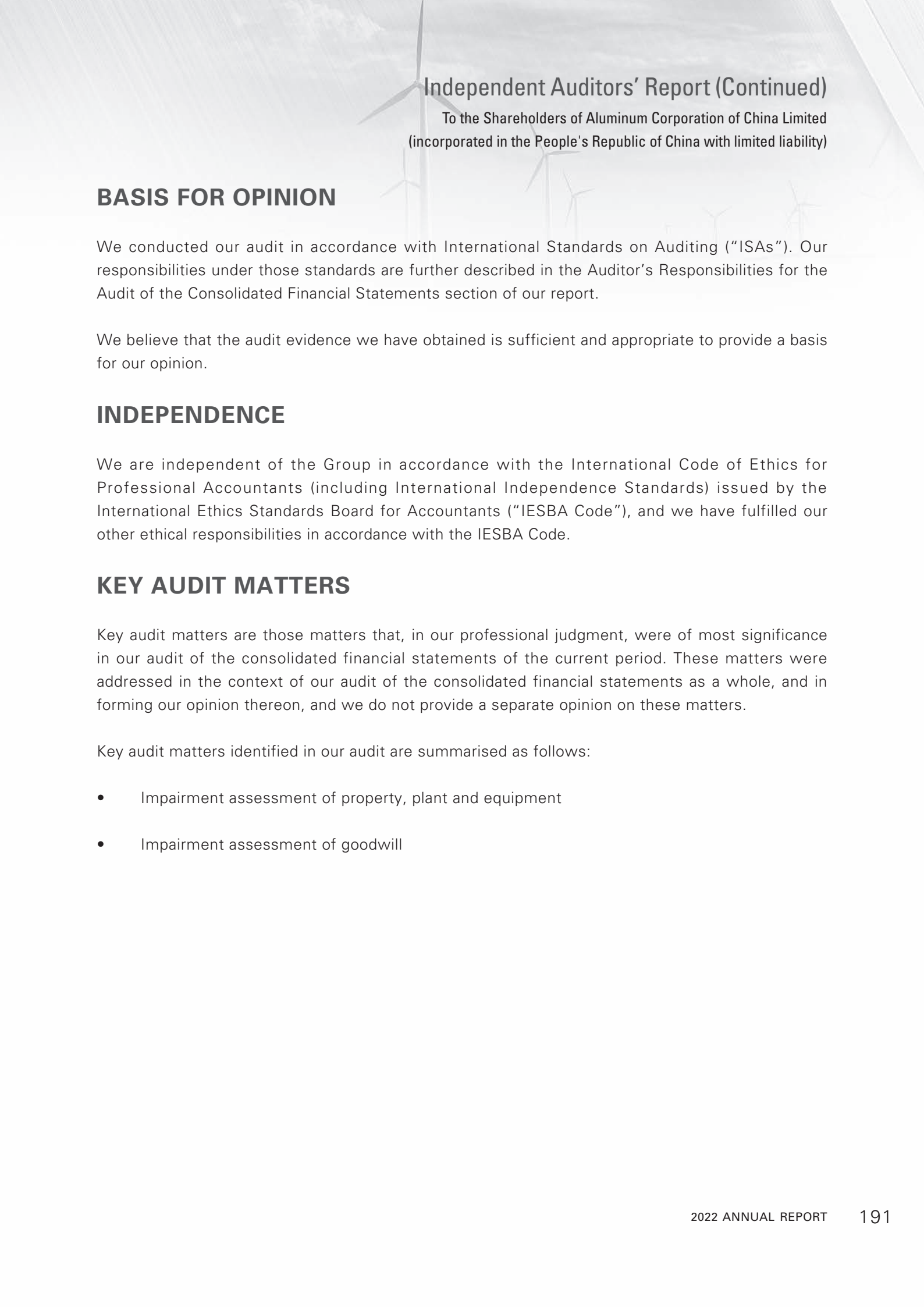
What we have audited

The consolidated financial statements of Aluminum Corporation of China Limited (the "Company") and its subsidiaries (the "Group"), which are set out on pages 197 to 393, comprise:

- the consolidated statement of financial position as at 31 December 2022;
- the consolidated statement of profit or loss and other comprehensive income for the year then ended;
- the consolidated statement of changes in equity for the year then ended;
- the consolidated statement of cash flows for the year then ended; and
- the notes to the consolidated financial statements, which include significant accounting policies and other explanatory information.

Our opinion

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.



Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INDEPENDENCE

We are independent of the Group in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matters identified in our audit are summarised as follows:

- Impairment assessment of property, plant and equipment
- Impairment assessment of goodwill

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

KEY AUDIT MATTERS (CONTINUED)

Key Audit Matter

How our audit addressed the Key Audit Matter

Impairment assessment of property, plant and equipment

Refer to Notes 4 Estimates and assumptions (a) and Note 7 to the consolidated financial statements.

In addressing this matter, we performed the following procedures:

As at 31 December 2022, the Group's net carrying amount of property, plant and equipment ("PP&E") was RMB 109,277 million. Management assesses related assets for potential impairment whenever there are indications that the carrying value of an asset or a group of assets may not be recoverable. As at 31 December 2022, management performed impairment assessment on PP&E with impairment indications at the level of cash generating unit ("CGU") to which the PP&E was allocated using discounted cash flow model. The discounted cash flows model used for the impairment assessment of PP&E involved significant assumptions including product prices, discount rate and the fair value of certain PP&E to be disposed of. Based on the impairment test, RMB 3,795 million of impairment losses were recognised by management for PP&E for the year ended 31 December 2022.

We focused on auditing the impairment assessment of PP&E because the carrying amount of PP&E as at 31 December 2022 and the amount of PP&E impairment recognised for the year ended 31 December 2022 was significant, and the estimation of recoverable amount of PP&E was subject to high degree of estimation uncertainty. The inherent risk in relation to the impairment assessment of PP&E is considered significant due to the complexity of the model and subjectivity of significant assumptions used. Therefore, we identified impairment assessment of PP&E as a key audit matter.

- Obtained an understanding of the management's internal control and assessment process of recoverable amounts of PP&E, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and the level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud.
- Evaluated and tested the key controls over the impairment assessment of PP&E, including controls over the development of model and significant assumptions used in the impairment test.
- Evaluated the reasonableness of the significant assumptions of the product prices applied by management by comparing the management forecast prices against the historical and present market prices, taking into account the published forecast prices.
- Involved our valuation experts to evaluate the appropriateness of the model that the management used, and the reasonableness of the significant assumptions including discount rate and the fair value of certain PP&E to be disposed of.
- Tested the completeness, accuracy and relevancy of the underlying data used and the mathematical accuracy of the calculations in the model.

Based on our work, we found that the result of management's impairment assessment of PP&E was supported by the evidence we obtained.

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

KEY AUDIT MATTERS (CONTINUED)

Key Audit Matter

How our audit addressed the Key Audit Matter

Impairment assessment of goodwill

Refer to Notes 4 Estimates and assumptions (b) and Note 6 to the consolidated financial statements.

In addressing this matter, we performed the following procedures:

As at 31 December 2022, the Company's carrying value of goodwill was RMB 3,495 million. Management performed impairment assessment of goodwill on an annual basis. When performing the impairment assessment, the recoverable amount of the CGU to which the goodwill was allocated was estimated by management using discounted cash flow model, and compared with the carrying amount of the CGU to determine if goodwill was impaired. The discounted cash flow models used for the impairment assessment of goodwill involved significant assumptions including product prices, the long-term growth rate and the discount rate. Based on the impairment test, RMB 15 million of impairment losses were recognised by management for goodwill for the year ended 31 December 2022.

We focused on auditing the impairment assessment of goodwill because the carrying amount of goodwill as at 31 December 2022 was significant, and the estimation of recoverable amount of goodwill was subject to high degree of estimation uncertainty. The inherent risk in relation to the impairment assessment of goodwill is considered significant due to the complexity of the model and subjectivity of significant assumptions used. Therefore, we identified impairment assessment of goodwill as a key audit matter.

- Obtained an understanding of the management's internal control and assessment process of recoverable amounts of goodwill, and assessed the inherent risk of material misstatement by considering the degree of estimation uncertainty and the level of other inherent risk factors such as complexity, subjectivity, changes and susceptibility to management bias or fraud.
- Evaluated and tested the key controls over the impairment assessment of goodwill,, including controls over the development of model and significant assumptions used in the impairment test.
- Evaluated the reasonableness of the product prices applied by management by comparing the management forecast prices against the historical and present market prices taking into account the published forecast prices.
- Involved our valuation experts to evaluate the appropriateness of the model and the reasonableness of certain significant assumptions, including the long-term growth rate and the discount rate.
- Tested the completeness, accuracy and relevancy of the underlying data used and the mathematical accuracy of the calculations in the models.

Based on our work, we found that the result of management's impairment assessment of goodwill was supported by the evidence we obtained.

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

OTHER INFORMATION (CONTINUED)

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

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

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

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

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

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. We report our opinion solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

Independent Auditors' Report (Continued)

To the Shareholders of Aluminum Corporation of China Limited
(incorporated in the People's Republic of China with limited liability)

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

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

The engagement partner on the audit resulting in this independent auditor's report is LEONG Kin Bong.

PricewaterhouseCoopers

Certified Public Accountants

Hong Kong, 21 March 2023

As at 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Financial Position

	Notes	31 December 2022	31 December 2021 (Restated)
ASSETS			
Non-current assets			
Intangible assets	6	12,950,823	13,333,988
Property, plant and equipment	7	109,276,880	121,383,020
Investment properties	8	1,917,623	1,814,589
Right-of-use assets	22(a)	17,273,642	19,042,009
Investments in joint ventures	9(a)	3,339,967	3,350,959
Investments in associates	9(b)	6,402,638	6,441,793
Other financial assets measured at fair value	10	2,161,085	457,686
Deferred tax assets	11	2,057,900	2,096,459
Other non-current assets	12	2,431,500	2,832,661
Total non-current assets		157,812,058	170,753,164
Current assets			
Inventories	13	24,712,322	21,642,654
Trade and notes receivables	14	5,874,021	7,106,729
Other current assets	15	4,689,697	4,275,669
Restricted cash	16	2,443,249	1,400,988
Cash and cash equivalents	16	16,816,684	19,683,619
Total current assets		54,535,973	54,109,659
Total assets		212,348,031	224,862,823

Consolidated Statement of Financial Position (Continued)

As at 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Notes	31 December 2022	31 December 2021 (Restated)
EQUITY AND LIABILITIES			
EQUITY			
Share capital	17	17,161,592	17,022,673
Shares held for employee share scheme	18	(404,685)	–
Other equity instruments	19	2,000,000	2,498,429
Other reserves	20	25,556,558	34,152,443
Retained earnings		10,089,547	6,810,078
Total equity attributable to owners of the Company		54,403,012	60,483,623
Non-controlling interests	40	33,352,955	29,213,945
Total equity		87,755,967	89,697,568
LIABILITIES			
Non-current liabilities			
Interest-bearing loans and borrowings	21	58,596,765	69,674,935
Deferred tax liabilities	11	1,451,692	1,403,291
Other non-current liabilities	23	2,176,784	2,171,427
Total non-current liabilities		62,225,241	73,249,653

As at 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Financial Position (Continued)

	Notes	31 December 2022	31 December 2021 (Restated)
Current liabilities			
Trade and notes payables	25	22,536,331	18,588,416
Other payables and accrued liabilities	24	9,521,239	12,382,739
Contract liabilities	5	2,049,014	2,363,043
Financial liabilities at fair value through profit or loss	39.2	8,767	68,871
Income tax payable		392,119	847,163
Interest-bearing loans and borrowings	21	27,859,353	27,665,370
Total current liabilities		62,366,823	61,915,602
Total liabilities		124,592,064	135,165,255
Total equity and liabilities		212,348,031	224,862,823
Net current liabilities		(7,830,850)	(7,805,943)
Total assets less current liabilities		149,981,208	162,947,221

The accompanying notes on pages 206 to 393 are an integral part of these consolidated financial statements.

The financial statements on pages 197 to 393 were approved by the Board of Directors on 21 March 2023 and were signed on its behalf.

Liu Jianping
Chairman

Ge Xiaolei
Chief Financial Officer

Consolidated Statement of Profit or Loss and Other Comprehensive Income

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

		For the year ended 31 December	
	Notes	2022	2021 (Restated)
Revenue	5	290,987,942	298,885,350
Cost of sales	27	(259,704,084)	(264,168,773)
Gross profit		31,283,858	34,716,577
Selling and distribution expenses	27	(418,909)	(383,233)
General and administrative expenses	27	(6,008,207)	(6,325,461)
Research and development expenses	27	(4,805,174)	(2,417,448)
Impairment losses on property, plant and equipment	7	(3,795,420)	(4,064,673)
Net impairment losses on financial assets	28	(414,139)	(1,390,765)
Other income	29	235,785	173,156
Other gains/(losses) – net	30	315,359	(1,641,015)
Operating profit		16,393,153	18,667,138
Finance income	31	477,137	311,103
Finance costs	31	(3,894,867)	(4,532,666)
Finance costs, net		(3,417,730)	(4,221,563)
Impairment loss on investment in an associate	9(b)	(75,997)	–
Share of net profits/(losses) of investments accounted for using the equity method			
Joint ventures	9(a)	178,910	164,100
Associates	9(b)	130,632	(423,247)
Profit before income tax		13,208,968	14,186,428
Income tax expense	34	(2,365,639)	(2,869,551)
Profit for the year		10,843,329	11,316,877

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Profit or Loss and Other Comprehensive Income (Continued)

		For the year ended 31 December	
	Notes	2022	2021 (Restated)
Profit attributable to:			
Owners of the Company		4,191,927	5,759,422
Non-controlling interests		6,651,402	5,557,455
		10,843,329	11,316,877
Basic and diluted earnings per share attributable to owners of the Company (expressed in RMB per share)	35	0.239	0.326
Profit for the year		10,843,329	11,316,877
Other comprehensive income			
<i>Items that will be reclassified to profit or loss</i>			
Exchange differences on translation of foreign operations		(480,513)	254,116
<i>Items that will not be reclassified to profit or loss</i>			
Changes in fair value of financial assets measured at fair value through other comprehensive income		(43,884)	(6,172)
Income tax effect		7,236	5,731
Share of other comprehensive (loss)/income of associates and joint ventures accounted for using the equity method		(5,628)	6,292
Other comprehensive income for the year, net of tax		(522,789)	259,967
Total comprehensive income for the year		10,320,540	11,576,844
Total comprehensive income for the year attributable to:			
Owners of the Company		3,676,881	6,010,739
Non-controlling interests		6,643,659	5,566,105
		10,320,540	11,576,844

The accompanying notes on pages 206 to 393 are an integral part of these consolidated financial statements.

Consolidated Statement of Changes in Equity

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Attributable to owners of the Company												
	Share capital (Note 17)	Share premium	Other reserves	Shares held for employee share scheme	Statutory surplus reserve	Special reserve	Fair value reserve	Other equity instruments	Foreign currency translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
At 31 December 2021	17,022,673	26,958,144	1,159,190	-	1,892,286	287,983	20,760	2,498,429	600,995	6,824,227	57,264,687	15,518,810	72,783,497
Changes in accounting policies (Note 3.1.4)	-	-	-	-	-	-	-	-	-	61,526	61,526	12,196	73,722
Adjustment due to business combinations under common control (Note 41)	-	3,048,626	1,356	-	-	33,346	146,691	-	3,066	(75,675)	3,157,410	13,682,939	16,840,349
At 1 January 2022	17,022,673	30,006,770	1,160,546	-	1,892,286	321,329	167,451	2,498,429	604,061	6,810,078	60,483,623	29,213,945	89,697,568
Profit for the year	-	-	-	-	-	-	-	-	-	4,191,927	4,191,927	6,651,402	10,843,329
Other comprehensive income for the year													
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	-	-	(23,061)	-	-	-	(23,061)	(13,587)	(36,648)
Exchange differences on translation of foreign operations	-	-	-	-	-	-	-	-	(486,357)	-	(486,357)	5,844	(480,513)
Share of other comprehensive loss of associates and joint ventures accounted for using the equity method	-	-	-	-	-	-	(5,628)	-	-	-	(5,628)	-	(5,628)
Total comprehensive income for the year	-	-	-	-	-	-	(28,689)	-	(486,357)	4,191,927	3,676,881	6,643,659	10,320,540
Business combinations under common control (Note 41)	-	(8,549,073)	-	-	-	-	-	-	-	(90,242)	(8,639,315)	-	(8,639,315)
Transactions with non-controlling shareholders	-	-	(17,911)	-	-	-	-	-	-	-	(17,911)	15,846	(2,065)
Appropriation to surplus reserves	-	-	-	-	168,254	-	-	-	-	(168,254)	-	-	-
Issuance of shares for employee share scheme (Note 18)	138,919	265,766	-	(404,685)	-	-	-	-	-	-	-	-	-
Employee share schemes—value of employee services	-	-	48,172	-	-	-	-	-	-	-	48,172	86	48,258
Capital contribution to a branch of the Company	-	-	5,080	-	-	-	-	-	-	-	5,080	-	5,080
Other appropriations	-	-	-	-	-	(4,959)	-	-	-	-	(4,959)	(12,725)	(17,684)
Share of reserves of joint ventures and associates	-	-	453	-	-	3,379	-	-	-	-	3,832	-	3,832
Distribution of other equity instruments	-	-	-	-	-	-	-	-	-	(109,071)	(109,071)	-	(109,071)
Dividends distribution by subsidiaries to non-controlling shareholders	-	-	-	-	-	-	-	-	-	-	-	(2,507,856)	(2,507,856)
Distribution of dividends	-	-	-	-	-	-	-	-	-	(544,891)	(544,891)	-	(544,891)
Repayment of senior perpetual securities	-	-	-	-	-	-	-	(2,498,429)	-	-	(2,498,429)	-	(2,498,429)
Issuance of senior perpetual securities	-	-	-	-	-	-	-	2,000,000	-	-	2,000,000	-	2,000,000
At 31 December 2022	17,161,592	21,723,463	1,196,340	(404,685)	2,060,540	319,749	138,762	2,000,000	117,704	10,089,547	54,403,012	33,352,955	87,755,967

Year ended 31 December 2021
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Changes in Equity (Continued)

	Attributable to owners of the Company												Non-controlling interests	Total equity
	Share capital (Note 17)	Capital reserves		Shares held for employee share scheme	Statutory surplus reserve	Special reserve	Fair value reserve	Other equity instruments	Foreign currency translation reserve	Retained earnings/ (Accumulated losses)	Total			
		Share premium	Other reserves											
At 31 December 2020	17,022,673	27,353,768	1,161,392	–	5,867,557	180,428	7,618	4,486,429	345,205	(1,975,753)	54,449,317	16,855,847	71,305,164	
Changes in accounting policies (Note 3.1.4)	–	–	–	–	–	–	–	–	–	63,068	63,068	–	63,068	
Adjustment due to business combinations under common control (Note 41)	–	2,499,341	–	–	–	20,590	115,116	–	3,391	(753,565)	1,884,873	8,737,586	10,622,459	
At 1 January 2021	17,022,673	29,853,109	1,161,392	–	5,867,557	201,018	122,734	4,486,429	348,596	(2,666,250)	56,397,258	25,593,433	81,990,691	
Profit for the year	–	–	–	–	–	–	–	–	–	5,759,422	5,759,422	5,557,455	11,316,877	
Other comprehensive income for the year														
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	–	–	–	–	–	–	(10,440)	–	–	–	(10,440)	9,999	(441)	
Exchange differences on translation of foreign operations	–	–	–	–	–	–	–	–	255,465	–	255,465	(1,349)	254,116	
Share of other comprehensive income of associates and joint ventures accounted for using the equity method	–	–	–	–	–	–	6,292	–	–	–	6,292	–	6,292	
Total comprehensive income for the year	–	–	–	–	–	–	(4,148)	–	255,465	5,759,422	6,010,739	5,566,105	11,576,844	
Business combinations under common control	–	(395,624)	–	–	–	–	–	–	–	–	(395,624)	–	(395,624)	
Capital injection from non-controlling shareholders	–	549,285	9,798	–	–	–	–	–	–	–	559,083	2,137,038	2,696,121	
Disposal of subsidiaries	–	–	–	–	–	–	–	–	–	–	–	(3,886)	(3,886)	
Appropriation to surplus reserves	–	–	–	–	254,642	–	–	–	–	(254,642)	–	–	–	
Other appropriations	–	–	1,356	–	–	115,968	–	–	–	–	117,324	92,918	210,242	
Share of reserves of joint ventures and associates	–	–	–	–	–	4,343	–	–	–	–	4,343	–	4,343	
Disposal of other equity instrument investments	–	–	–	–	–	–	48,865	–	–	(48,865)	–	–	–	
Distribution of other equity instruments	–	–	–	–	–	–	–	–	–	(209,500)	(209,500)	(140,127)	(349,627)	
Offset of statutory surplus reserves against accumulated losses	–	–	–	–	(4,229,913)	–	–	–	–	4,229,913	–	–	–	
Dividends distribution by subsidiaries to non-controlling shareholders	–	–	–	–	–	–	–	–	–	–	–	(645,286)	(645,286)	
Repayment of senior perpetual securities	–	–	(12,000)	–	–	–	–	(1,988,000)	–	–	(2,000,000)	(3,386,250)	(5,386,250)	
At 31 December 2021	17,022,673	30,006,770	1,160,546	–	1,892,286	321,329	167,451	2,498,429	604,061	6,810,078	60,483,623	29,213,945	89,697,568	

The accompanying notes on pages 206 to 393 are an integral part of these consolidated financial statements.

Consolidated Statement of Cash Flows

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

	Notes	For the year ended 31 December	
		2022	2021 (Restated)
Net cash inflow from operating activities	37	27,745,178	35,156,246
Investing activities			
Purchases of intangible assets		(197,352)	(218,264)
Purchases of property, plant and equipment		(4,416,315)	(3,190,928)
Purchases of right-of-use assets		(137,529)	(2,544)
Proceeds from disposal of property, plant and equipment		47,875	1,014,745
Proceeds from disposal of intangible assets		25,320	9,548
Proceeds from disposal of right-of-use assets		13,796	21,421
Proceeds from disposal of subsidiaries, net of cash		94,496	20,950
Proceeds from disposal of a joint venture and an associate		72,079	113,514
Investments in other financial assets measured at fair value		(15,330,000)	(11,921,000)
Proceeds from disposal of other financial assets measured at fair value		15,000,000	12,850,400
Investment loss/(income) from other financial assets measured at fair value		351,537	(447,136)
Dividend received from financial assets at fair value through other comprehensive income		11,499	15,268
Dividends received from associates and joint ventures		311,895	542,961
Change in deposit of futures contracts		673,392	(617,559)
Repayment of entrusted loans		–	60,395
Assets-related government grants received		61,010	75,971
Net cash outflow from investing activities		(3,418,297)	(1,672,258)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

Consolidated Statement of Cash Flows (Continued)

	Notes	For the year ended 31 December	
		2022	2021 (Restated)
Financing activities			
Instalment payment of bonds and shares issuance expenses		(8,769)	(55,167)
Proceeds from issuance of short-term bonds and medium-term notes		8,500,000	24,845,054
Repayments of senior perpetual securities		(2,498,429)	(5,386,250)
Proceeds from issuance of senior perpetual securities		2,000,000	–
Repayments of short-term bonds and medium-term notes		(11,543,196)	(21,537,420)
Distributions of senior perpetual securities		(109,071)	(349,627)
Drawdown of short-term and long-term bank and other loans		23,110,651	35,427,456
Repayments of short-term and long-term bank and other loans		(30,462,437)	(53,661,147)
Lease payments		(1,599,072)	(554,668)
Issuance of shares for employee share scheme		404,685	–
Capital injection from non-controlling shareholders		–	2,730,055
Cash consideration paid for business combination under common control		(8,549,073)	(395,624)
Dividends paid by subsidiaries to non-controlling shareholders		(2,513,038)	(579,047)
Proceeds from loans of non-controlling shareholders		50,000	–
Repayments of loans of non-controlling shareholders		(45,000)	–
Interest paid		(3,775,000)	(3,901,665)
Others		–	4,646
Net cash outflow from financing activities		(27,037,749)	(23,413,404)
Net (decrease)/increase in cash and cash equivalents		(2,710,868)	10,070,584
Cash and cash equivalents at the beginning of the year		19,683,619	9,540,589
Net foreign exchange differences		(156,067)	72,446
Cash and cash equivalents at the end of the year	16	16,816,684	19,683,619

The accompanying notes on pages 206 to 393 are an integral part of these consolidated financial statements.

Notes to Financial Statements

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

1 GENERAL INFORMATION

Aluminum Corporation of China Limited (the “Company”) (中國鋁業股份有限公司) and its subsidiaries (together the “Group”) are principally engaged in the exploration and mining of bauxite resources; production, sales, related technical development and technical services of alumina, primary aluminum, aluminum alloy and carbon; power generation business; exploration, mining and operation of coal resources; trading and logistics.

The Company is a joint stock company which was established on 10 September 2001 and is domiciled in the People’s Republic of China (the “PRC”) with limited liability. The address of its registered office is No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC.

The Company’s shares have been listed on the Main Board of the Hong Kong Stock Exchange and the New York Stock Exchange since 2001. The Company also listed its A shares on the Shanghai Stock Exchange in 2007.

On 12 August 2022 (U.S. Eastern Time), the Company has notified the New York Stock Exchange (“NYSE”) of its proposed application for voluntary delisting of its American depositary shares (the “ADSs”) from the NYSE. The last trading day of ADSs on the NYSE was on 1 September 2022. On and after such date, the ADSs of the Company would no longer be listed on the NYSE. After the Company completed the delisting on 1 September 2022, the Company will then apply for deregistration of the ADSs.

In the opinion of the directors, the ultimate parent of the Company is Aluminum Corporation of China (“Chinalco”) (中國鋁業集團有限公司), a company incorporated and domiciled in the PRC and wholly owned by the State-owned Assets Supervision and Administration Commission of the State Council.

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries

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

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
Shanxi Huaxing Aluminum Co. Ltd. ("Shanxi Huaxing") (山西華興鋁業有限公司)	PRC/Mainland China	1,850,000	Manufacture and distribution of alumina	60.00%	40.00%
Baotou Aluminum Co., Ltd. ("Baotou Aluminum") (包頭鋁業有限公司)	PRC/Mainland China	2,245,510	Manufacture and distribution of primary aluminum, aluminum alloy and related fabricated products and carbon products	100.00%	–
China Aluminum International Trading Co., Ltd. ("Chalco Trading") (中鋁國際貿易有限公司)	PRC/Mainland China	1,731,111	Import and export activities	100.00%	–
Chalco Shanxi New Material Co., Ltd. ("Shanxi New Material") (中鋁山西新材料有限公司)	PRC/Mainland China	4,279,601	Manufacture and distribution of alumina, primary aluminum and anode carbon products and electricity generation and supply	85.98%	–
China Aluminum International Trading Group Co., Ltd. ("Trading Group") (中鋁國際貿易集團有限公司)	PRC/Mainland China	1,030,000	Import and export activities	100.00%	–
Zunyi Aluminum Co., Ltd. (遵義鋁業股份有限公司)	PRC/Mainland China	3,204,900	Manufacture and distribution of primary aluminum and alumina	67.45%	–
Chalco Hong Kong Ltd. ("Chalco Hong Kong") (中國鋁業香港有限公司)	Hong Kong	HKD6,778,835 in thousand	Overseas investments and alumina import and export activities, and mining and distribution of bauxite.	100.00%	–

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries (Continued)

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
Chalco Mining Co., Ltd. ("Chalco Mining") (中鋁礦業有限公司)	PRC/Mainland China	4,028,859	Manufacture, acquisition and distribution of bauxite mines, limestone ore and alumina	100.00%	–
Chalco Energy Co., Ltd. (中鋁能源有限公司)	PRC/Mainland China	1,384,398	Thermoelectric supply and investment management	100.00%	–
China Aluminum Ningxia Energy Group Co., Ltd. ("Ningxia Energy") (中鋁寧夏能源集團)	PRC/Mainland China	5,025,800	Thermal power, wind power and solar power generation, coal mining, and power-related equipment manufacturing	70.82%	–
Guizhou Huajin Aluminum Co., Ltd. ("Guizhou Huajin") (貴州華錦鋁業有限公司)	PRC/Mainland China	1,000,000	Manufacture and distribution of alumina	60.00%	–
Chalco Zhengzhou Research Institute of Non-ferrous Metal Co., Ltd. (中國鋁業鄭州有色金屬研究院有限公司)	PRC/Mainland China	214,858	Research and development services	100.00%	–
Chinalco New Materials Co., Ltd (中鋁新材料有限公司)	PRC/Mainland China	6,450,000	Manufacture and distribution of alumina, aluminium hydroxide and trading	100.00%	–
China Aluminum Logistics Group Corporation Co., Ltd. (中鋁物流集團有限公司)	PRC/Mainland China	964,291	Logistics and transportation	100.00%	–
Chinalco Shanxi Jiaokou Xinghua Technology Ltd. ("Xinghua Technology") (中鋁集團山西交口興華科技股份有限公司)	PRC/Mainland China	588,182	Manufacture and distribution of primary aluminum	33.00%	33.00%

1 GENERAL INFORMATION (CONTINUED)

Information about subsidiaries (Continued)

Name	Place of registration and business	Registered capital	Principal activities	Percentage of equity attributable to the Company	
				Direct	Indirect
Chinalco Shanghai Company Limited ("Chinalco Shanghai") (中鋁(上海)有限公司)	PRC/Mainland China	968,300	Trading and engineering project management and leasing	100.00%	–
Shanxi Chinalco Resources Co., Ltd. ("Shanxi Chinalco Resources") (山西中鋁華潤有限公司)	PRC/Mainland China	1,641,750	Manufacture and distribution of primary aluminum	40.00%	–
Guizhou Huaren New Material Co., Ltd. ("Guizhou Huaren") (貴州華仁新材料有限公司)	PRC/Mainland China	1,200,000	Manufacture and distribution of primary aluminum	40.00%	–
Chinalco Materials Co., Ltd. (中鋁物資有限公司)	PRC/Mainland China	1,000,000	Import and export activities and trading	100.00%	–
Yunnan Aluminum Co., Ltd. (“Yunnan Aluminum”) (雲南鋁業股份有限公司)	PRC/Mainland China	3,467,957	Manufacture and distribution of primary aluminum and alumina	29.10%	–
Chalco (Shanghai) Carbon Co., Ltd. ("Shanghai Carbon") (中鋁(上海)碳素有限公司)	PRC/Mainland China	1,000,000	Manufacture and distribution of anode and cathode carbon	100.00%	–
Lanzhou Aluminum Co., Ltd. (蘭州鋁業有限公司)	PRC/Mainland China	1,593,648	Manufacture and distribution of primary aluminum	100.00%	–

2 SIGNIFICANT CHANGES IN THE CURRENT REPORTING PERIOD

In 2022, the Company acquired 19% equity interest in Yunnan Aluminum and the entire equity interests in Pingguo Aluminum, both of which were subsidiaries of Chinalco. These transactions were regarded as business combinations under common control (Note 41) and merger accounting was applied by the Group as described in Note 3.3(a). The comparative information has been restated accordingly.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

This note provides a list of the significant accounting policies adopted in the preparation of these consolidated financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for the Group consisting of the Company and its subsidiaries.

3.1 Basis of preparation

3.1.1 Compliance with IFRS and HKCO

The consolidated financial statements of the Company have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the disclosure requirements of the Hong Kong Companies Ordinance Cap. 622 ("HKCO").

The preparation of the financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 4.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.1 Basis of preparation (Continued)

3.1.2 Going concern

As at 31 December 2022, the Group's current liabilities exceeded its current assets by approximately RMB7,831 million (31 December 2021 (restated): RMB7,806 million). The directors of the Company have considered the Group's available sources of funds as follows:

- The Group's expected net cash inflows from operating activities for 2023;
- Unutilised banking facilities of approximately RMB99,189 million as at 31 December 2022, of which RMB49,380 million will be available over the 12 months from 31 December 2022. The directors of the Company are in the view that these banking facilities could be renewed upon expiration based on the Group's past experience and good credit standing;
- Other available sources of financing from banks and other financial institutions given the Group's credit history.

The directors of the Company believe that the Group has adequate resources to continue operations for the foreseeable future of not less than 12 months from 31 December 2022. Accordingly, the directors of the Company are of the opinion that it is appropriate to adopt the going concern basis in preparing the consolidated financial statements.

3.1.3 Historical cost convention

The financial statements have been prepared on a historical cost basis except for certain financial assets and financial liabilities measured at fair value.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.1 Basis of preparation (Continued)

3.1.4 New and amended standards adopted by the Group

The Group has applied the following amendment for the first time for their annual reporting period commencing 1 January 2022.

(i) *The amendment to IAS 16 Property, Plant and Equipment—Proceeds before Intended Use*

The amendment to IAS 16 Property, Plant and Equipment prohibits deduction of the cost of an item of property, plant and equipment from any proceeds received from selling items produced while the entity is preparing the asset for its intended use. It also clarifies that an entity is 'testing whether the asset is functioning properly' when it assesses the technical and physical performance of the asset. The financial performance of the asset is not relevant to this assessment.

This change in accounting policy has been accounted for retrospectively and the comparative information has been restated. The effect of adjustment on earliest period presented is as following:

Items	<i>RMB</i>
	1 January 2021
Property, plant and equipment	63,068
Retained earnings	(63,068)
	For the year ended
	<u>31 December 2021</u>
Revenue	82,280
Cost of sales	71,626

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.1 Basis of preparation (Continued)

3.1.4 New and amended standards adopted by the Group (Continued)

(i) The amendment to IAS 16 Property, Plant and Equipment—Proceeds before Intended Use (Continued)

Other than the amendment to ISA16, there are also new and amended standards that are mandatory for the first time for the Group's financial year beginning on 1 January 2022 and are applicable by the Group: Annual improvements, Amendments to IFRS 3, Amendments to IAS 37. The adoption of these amended standards did not have any significant financial impact to the Group.

As the retrospective application of the amendment to IAS 16 Property, Plant and Equipment did not have material impact to the Group's financial position and performance, the Group did not present the third balance sheet as of 1 January 2021.

3.1.5 New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatorily effective for 31 December 2022 reporting periods and have not been early adopted by the Group. Except for the amendments of IAS 12 on deferred income tax which impact is being assessed by management, other new standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.2 Principles of consolidation and equity accounting

3.2.1 Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity where the Group is exposed to, or has rights to, variable returns from its involvement with the entity and affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The acquisition method of accounting is used to account for business combinations by the Group (Note 3.3).

Inter-company transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

Non-controlling interests in the results and equity of subsidiaries are shown separately in the consolidated statement of profit or loss and other comprehensive income, statement of changes in equity and balance sheet respectively.

3.2.2 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. This is generally the case where the Group holds between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting (Note 3.2.4), after initially being recognised at cost.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.2 Principles of consolidation and equity accounting (Continued)

3.2.3 Joint arrangements

Under IFRS 11 'Joint Arrangements', investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement. The Group only has joint ventures.

Joint ventures

Interests in joint ventures are accounted for using the equity method (Note 3.2.4), after initially being recognised at cost in the consolidated statement of financial position.

3.2.4 Equity method

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise the Group's share of the post-acquisition profits or losses of the investee in profit or loss, and the Group's share of movements in other comprehensive income of the investee in other comprehensive income. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment.

Where the Group's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, including any other unsecured long-term receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in these entities. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of equity-accounted investees have been changed where necessary to ensure consistency with the policies adopted by the Group.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.2 Principles of consolidation and equity accounting (Continued)

3.2.4 Equity method (Continued)

The carrying amount of equity-accounted investments is tested for impairment in accordance with the policy described in Note 3.11.

3.2.5 Changes in ownership interests

The Group treats transactions with non-controlling interests that do not result in a loss of control as transactions with equity owners of the Group. A change in ownership interest results in an adjustment between the carrying amounts of the controlling and non-controlling interests to reflect their relative interests in the subsidiary. Any difference between the amount of the adjustment to non-controlling interests and any consideration paid or received is recognised in a separate reserve within equity attributable to owners of the Company.

When the Group ceases to consolidate or equity account for an investment because of a loss of control, joint control or significant influence, any retained interest in the entity is remeasured to its fair value with the change in carrying amount recognised in profit or loss. This fair value becomes the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss or transferred to another category of equity as specified/permitted by applicable IFRSs.

If the ownership interest in a joint venture or an associate is reduced but joint control or significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income are reclassified to profit or loss where appropriate.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.3 Business combination

(a) **Merger accounting for business combinations under common control**

The consolidated financial statements incorporate the financial statements of the combining entities or businesses in business combination under common control as if they had been combined from the date when the combining entities or businesses first came under the control of the ultimate holding company.

The net assets of the combining entities or businesses are consolidated using the carrying amount from the ultimate holding company's perspective. No amount is recognised for goodwill or excess of the Group's interest in the book value of the net assets over cost at the time of the common control combination, to the extent of the continuation of the ultimate holding company's interest.

The consolidated statement of comprehensive income includes the results of each of the combining entities or businesses from the earliest date presented or since the date when the combining entities or businesses first came under common control, where this is a shorter period, regardless of the date of the common control combination.

The comparative financial data have been restated to reflect the business combinations under common control occurred during this year (Note 41).

Transaction costs, including professional fees, registration fees, costs of furnishing information to shareholders, costs or losses incurred in combining operations of the previously separate businesses and other costs incurred in relation to the common control combination that is to be accounted for by using the merger accounting method are recognised as expenses in the period in which they are incurred.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.3 Business combination (Continued)

(b) Acquisition method of accounting for other business combinations and goodwill

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group, other than common control combinations. The consideration transferred is measured at the acquisition date fair value which is the sum of acquisition date fair value of assets transferred by the Group, liabilities assumed by the Group to the former owner of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The consideration transferred included the fair value of any assets and liabilities resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at fair value at the acquisition date. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportional share of net assets in the event of liquidation at fair value or at the proportional share of the acquiree's identifiable net assets.

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.3 Business combination (Continued)

(b) Acquisition method of accounting for other business combinations and goodwill (Continued)

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

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.4 Separate financial statements

Investments in subsidiaries are accounted for at cost less impairment. Cost includes direct attributable costs of investment. The results of subsidiaries are accounted for by the Company on the basis of dividend received and receivable.

Impairment testing of the investments in subsidiaries is required upon receiving a dividend from these investments if the dividend exceeds the total comprehensive income of the subsidiary in the period the dividend is declared or if the carrying amount of the investment in the separate financial statements exceeds the carrying amount in the consolidated financial statements of the investee's net assets including goodwill.

3.5 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision maker. The chief operating decision-makers, who are responsible for allocating resources and assessing the performance of the operating segments, have been identified as the executive presidents committee of the Company that make strategic decisions.

3.6 Foreign currency translation

(a) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in RMB, which is the Company's functional and presentation currency.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.6 Foreign currency translation (Continued)

(b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at year end exchange rates are generally recognised in profit or loss.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined. Translation differences on assets and liabilities carried at fair value are reported as part of the fair value gain or loss. For example, translation differences on non-monetary assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss and translation differences on non-monetary assets such as equities classified as fair value through other comprehensive income are recognised in other comprehensive income.

(c) Group companies

The results and financial positions of all the group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- (i) assets and liabilities in each statement of financial position presented are translated at the closing rates at the end of the reporting period;

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.6 Foreign currency translation (Continued)

(c) Group companies (Continued)

- (ii) income and expenses in each statement of profit and loss and other comprehensive income are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rates at the dates of the transactions); and
- (iii) all resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

(d) Disposal of foreign operation and partial disposal

On the disposal of a foreign operation (that is, a disposal of the group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a joint venture that includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the currency translation differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.7 Property, plant and equipment

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with IFRS 5. Construction in progress represents buildings under construction, which is stated at cost less any impairment losses, and is not depreciated. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of any component accounted for as a separate asset is derecognised when replaced. All other repairs and maintenance are charged to profit or loss during the reporting period in which they are incurred.

Except for the coal mining structures which depreciation is calculated using the unit-of-production method, depreciation of property, plant and equipment is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives as follows:

Buildings and infrastructure	8 – 45 years
Machinery	3 – 30 years
Transportation facilities	6 – 10 years
Office and other equipment	3 – 10 years

Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.7 Property, plant and equipment (Continued)

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 3.11).

Gains and losses on disposals are determined by comparing proceeds with carrying amount. These are included in profit or loss.

3.8 Investment properties

Investment properties are interests in land use rights and buildings (including the leasehold property held as a right-of-use asset which would otherwise meet the definition of an investment property) held to earn rental income and/or for capital appreciation, rather than for use in the production or supply of goods or services or for administrative purposes; or for sale in the ordinary course of business. Such properties are measured initially at cost, including transaction costs. After initial recognition, the Group uses the cost methods to measure all of its investment properties.

Depreciation is calculated using the straight-line method to allocate their cost, net of their residual values, over their estimated useful lives as follows:

Buildings	25 – 50 years
Land use rights	40 – 70 years

The carrying amounts of investment properties measured using the cost method are reviewed for impairment when events or changes in circumstances indicate that the carrying amounts may not be recoverable.

Any gains or losses on the retirement or disposal of an investment property are recognised in profit or loss in the year of the retirement or disposal.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.9 Intangible assets

(a) Goodwill

Goodwill is measured as described in Note 3.3. Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill is not amortised but it is tested for impairment annually, or more frequently if events or changes in circumstances indicate that it might be impaired, and is carried at cost less accumulated impairment losses. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units or groups of units are identified at the lowest level at which goodwill is monitored for internal management purposes, being the operating segments (Note 5).

(b) Mining rights and mineral exploration rights

The Group's mineral exploration rights and mining rights relate to coal, bauxite and other mines.

(i) Recognition

Except for mineral exploration rights and mining rights acquired in a business combination, mineral exploration rights and mining rights are initially recorded at cost which includes the acquisition consideration, qualifying exploration and other direct costs. The mineral exploration rights are stated at cost less any impairment, and the mining rights are stated at cost less any amortisation and impairment.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.9 Intangible assets (Continued)

(b) Mining rights and mineral exploration rights (Continued)

(ii) Reclassification

Mineral exploration rights are converted to mining rights when obtain mining rights certification, or technical feasibility and commercial viability of extracting a mineral resource are demonstrable, and are subject to amortisation when commercial production has commenced.

The Group assesses the stage of each mine under construction to determine when a mine moves into the production stage. The criteria used to assess the start date are determined based on the unique nature of each mine construction project. The Group considers various relevant criteria, such as completion of a reasonable period of testing of the mine and equipment, ability to produce in saleable form (within specifications) and ability to sustain ongoing production to assess when a mine is substantially complete and ready for its intended use.

(iii) Amortisation

Mining rights other than coal mining rights are amortised on a straight-line basis over a shorter period of the mining right valid period and expected mining life. Estimated mineable periods of the majority of the mining rights range from 3 to 30 years.

Coal mining rights are amortised on a unit-of-production basis over the economically recoverable reserves evaluated based on the reserves estimated in accordance with the standards of the mine concerned.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.9 Intangible assets (Continued)

(b) Mining rights and mineral exploration rights (Continued)

(iv) Impairment

An impairment review is performed when there are indicators that the carrying amount of the mineral exploration rights and mining rights may exceed their recoverable amounts. To the extent that this occurs, the excess is fully provided as an impairment loss.

(c) Computer software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use specific software. These costs are amortised over their estimated useful lives, which do not exceed 10 years. Costs associated with maintaining computer software programmes are recognised as an expense as incurred.

(d) Aluminum production quota

Historically the Group acquired aluminum production quotas from third parties as the license for certain newly developed aluminum production lines. Aluminum production quota are initially recorded at cost and subsequently states at cost less any amortisation and impairment. Amortisation is provided on a straight-line basis over expected useful life of related aluminum production lines.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.10 Research and development costs

Research and development expenditures are classified as research expenditures and development expenditures according to the nature of the expenditures and whether there is significant uncertainty of development activities transforming to assets.

Research expenditures are recognised in profit or loss for the current period. Development expenditures are recognised as assets when all of the following criteria are met:

- (i) it is technically feasible to complete the asset so that it will be available for use or sale;
- (ii) management intends to complete the asset and intends and has the ability to use or sell it;
- (iii) it can be demonstrated that the asset will generate probable future economic benefits;
- (iv) there are adequate technical, financial and other resources to complete the development of the asset and management has the ability to use or sell the asset; and
- (v) the expenditure attributable to the asset during its development phase can be reliably measured.

Development expenditures that do not meet the criteria above are recorded in profit or loss for the current period as incurred. Development expenditures that have been recorded in profit or loss in previous periods will be not recognised as assets in subsequent periods. The Group has not had any development expenditure capitalised.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.11 Impairment of non-financial assets

Goodwill and intangible assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment, or more frequently if events or changes in circumstances indicate that they might be impaired. Other assets are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash inflows which are largely independent of the cash inflows from other assets or groups of assets (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at the end of each reporting period.

3.12 Non-current assets (or disposal groups) held for sale

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits, financial assets and investment property that are carried at fair value and contractual rights under insurance contracts, which are specifically exempt from this requirement.

An impairment loss is recognised for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the non-current asset (or disposal group) is recognised at the date of derecognition.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.12 Non-current assets (or disposal groups) held for sale (Continued)

Non-current assets (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

3.13 Investments and other financial assets

(a) Classification

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI or through profit or loss), and
- those to be measured at amortised cost.

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(a) Classification (Continued)

Except for trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables and notes receivable that do not contain a significant financing component or for which the Group has applied the practical expedient are initially measured at the transaction price determined under IFRS 15 in accordance with the policies set out for “Revenue recognition” below.

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(b) Subsequent measurement

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

(i) Financial assets at amortised cost (debt instruments)

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

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

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

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

(iv) *Financial assets at fair value through profit or loss*

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

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

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(b) Subsequent measurement (Continued)

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

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

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets

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

General approach

ECLs are recognised in three stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). For those have objective evidence of impairment at the reporting date, lifetime ECL are recognised and interest revenue is calculated on the net carrying amount.

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets (Continued)

General approach (Continued)

The Group considers a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

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

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

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.13 Investments and other financial assets (Continued)

(c) Impairment of financial assets (Continued)

Simplified approach

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

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

3.14 Financial liabilities

(a) Initial recognition and measurement

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

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

The Group's financial liabilities include trade and other payables, derivative financial instruments and interest-bearing bank and other borrowings.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.14 Financial liabilities (Continued)

(b) Subsequent measurement

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

(i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered by the Group that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments. Gains or losses on liabilities held for trading are recognised in profit or loss. The net fair value gain or loss recognised in profit or loss does not include any interest charged on these financial liabilities.

(ii) Financial liabilities at amortised cost (loans and borrowings)

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.14 Financial liabilities (Continued)

(b) Subsequent measurement (Continued)

(iii) Financial liabilities at amortised cost (trade and other payables)

These amounts represent liabilities for goods and services provided to the Group prior to the end of financial year which are unpaid. The amounts are unsecured and are usually paid within 30 days of recognition. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. They are subsequently measured at amortised cost using the effective interest method.

(iv) Financial guarantee contracts

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.14 Financial liabilities (Continued)

(c) Derecognition of financial liabilities

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

3.15 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is reported in the balance sheet where the Group currently has a legally enforceable right to offset the recognised amounts, and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

3.16 Derivatives

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument. The Group's derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognised immediately in profit or loss and are included in other gains/(losses).

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.17 Inventories

Raw materials and stores, work in progress and finished goods are stated at the lower of cost and net realisable value. Cost comprises direct materials, direct labour and an appropriate proportion of variable and fixed overhead expenditure, the latter being allocated on the basis of normal operating capacity. Costs are assigned to individual items of inventory on the basis of weighted average costs. Costs of purchased inventory are determined after deducting rebates and discounts. Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

3.18 Cash and cash equivalents

For the purpose of presentation in the statement of cash flows, cash and cash equivalents includes cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

3.19 Borrowing costs

General and specific borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are capitalised during the period of time that is required to complete and prepare the asset for its intended use or sale. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

Other borrowing costs are expensed in the period in which they are incurred.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.20 Current and deferred income tax

The income tax expense or credit for the period is the tax payable on the current period's taxable income based on the applicable income tax rate for each jurisdiction adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and to unused tax losses.

Current income tax

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period in the countries where the Company and its subsidiaries and associates or jointly ventures operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and considers whether it is probable that a taxation authority will accept an uncertain tax treatment. The Group measures its tax balances either based on the most likely amount or the expected value, depending on which method provides a better prediction of the resolution of the uncertainty.

Deferred income tax

Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.20 Current and deferred income tax (Continued)

Deferred income tax (Continued)

Deferred tax assets are recognised only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Deferred tax liabilities and assets are not recognised for temporary differences between the carrying amount and tax bases of investments in foreign operations where the Company is able to control the timing of the reversal of the temporary differences and it is probable that the differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset where there is a legally enforceable right to offset current tax assets and liabilities and where the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Current and deferred tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.21 Employee benefits

Employee benefits mainly include salaries, bonuses, allowances and subsidies, pension insurance, social insurance and housing funds, labour union fees, employees' education fees and other expenses related to the employees for their services. The Group recognises employee benefits as liabilities during the accounting period when employees rendered the services and allocates the related cost of assets and expenses based on different beneficiaries.

(a) Bonus plans

The expected cost of bonus plans is recognised as a liability when the Group has a present legal or constructive obligation as a result of services rendered by employees and a reliable estimate of the obligation can be made.

(b) Retirement benefit obligations

The Group primarily pays contributions on a monthly basis to participate in a pension plan organised by the relevant municipal and provincial governments in the PRC. The municipal and provincial governments undertake to assume the retirement benefit obligations of all existing and future retired employees payable under these plans. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefit relating to their current and past services.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.21 Employee benefits (Continued)

- (c) In addition, the Company and its eligible subsidiaries have established an enterprise annuity plan in accordance with national policies and relevant requirements under the Company's system. Fees required for the enterprise annuity plan shall be jointly paid by the enterprise and its employees. Employees may elect to join or not to join the enterprise annuity plan on voluntary basis.

As at 31 December 2022, the Group had no forfeited contributions available to offset contributions payable in future years. For the year ended 31 December 2022, other than the early retirement scheme implemented by the Group as described in Note 23(i), the Group didn't have any other defined benefit plan.

(d) Other social insurance and housing funds

The Group provides other social insurance and housing funds to the qualified employees in the PRC based on certain percentages of their salaries. These percentages are not to exceed the upper limits of the percentages prescribed by the Ministry of Human Resources and Social Security of the PRC. These benefits are paid to social security organisations and the amounts are expensed as incurred. The Group has no legal or constructive obligations for further contributions if the fund does not hold sufficient assets to pay all employees the benefit relating to their current and past services.

(e) Termination benefit obligations

Termination benefit obligations are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefit obligations when it is demonstrably committed to either: terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal; or providing termination benefits as a result of an offer made to encourage voluntary redundancy. The specific terms vary among the terminated employees depending on various factors including position, length of service and district of the employees concerned. Benefits falling due for more than 12 months after the end of the reporting period are discounted to their present values.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.21 Employee benefits (Continued)

(f) Equity-settled share-based payment transactions

The Abolition of the use of the accrued benefits derived from employers' "mandatory" contributions to MPF and ORSO to offset the long service payment ("LSP") and severance payment (the "Amendment") accrued from the Transition Date (not later than 2025) was enacted on 17 June 2022. As the LSP is a defined benefit plan, the Amendment changes the employer's legal obligation which is considered as a plan amendment under HKAS 19/IAS 19 and thus the impact should be considered in 2022. However, as the Group only has very few employees that in the scope of the Amendment, the Group is of the view that the Amendment will have immaterial impact to the Group's financial position and performance.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.22 Share-based payment

(a) Equity-settled share-based payment transactions

The Group operates a share incentive plan, under which the Company issued restricted shares to certain employees of the Group as the consideration for the services received from such employees. The fair value of the services received in exchange for the grant of the restricted shares is recognised as an expense on the consolidated statement of profit or loss with a corresponding increase in equity. In terms of the restricted shares awarded to employees, the total amount to be expensed is determined by reference to the fair value of equity instruments granted. In addition, the Company has an obligation to re-purchase the restricted shares forfeited due to unsatisfaction of service condition or performance condition. Accordingly, treasury shares and corresponding liability for the consideration of re-purchase of the restricted shares are recognised at the issue date of the shares.

Service and non-marketing performance conditions are included in calculation of the number of restricted shares that are expected to vest. The total amount expensed is recognised over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied.

At the end of each reporting period, the Group revises its estimates of the number of restricted shares that are expected to vest based on the non-marketing performance and service conditions. It recognises the impact of the revision to original estimates, if any, in the consolidated income statement, with a corresponding adjustment to equity.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.23 Provisions

Provisions for legal claims, asset retirement obligations are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are not recognised for future operating losses.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the end of the reporting period. The discount rate used to determine the present value is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The increase in the provision due to the passage of time is recognised as interest expense.

3.24 Revenue recognition

Revenue from contracts with customers

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

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.24 Revenue recognition (Continued)

Revenue from contracts with customers (Continued)

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

(a) Sale of industrial products

Revenue from the sale of industrial products (including sales of scrap and other materials) is recognised at the point in time when control of the asset is transferred to the customer, generally on acceptance of the industrial products. Revenue from electricity is recognised upon transmission of electricity based on the confirmation from the power grid.

(b) Rendering of services

The Group provides transportation service and the revenue from services is recognised over time, using an input method to measure progress towards complete satisfaction of the service, because the customer simultaneously receives and consumes the benefits provided by the Group.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.25 Earnings per share

(a) Basic earnings per share

Basic earnings per share is calculated by dividing:

- the profit attributable to owners of the Company, excluding any costs of servicing equity other than ordinary shares;
- by the weighted average number of ordinary shares outstanding during the financial year, adjusted for bonus elements in ordinary shares issued during the year and excluding treasury shares.

(b) Diluted earnings per share

Diluted earnings per share adjusts the figures used in the determination of basic earnings per share to take into account:

- the after-income tax effect of interest and other financing costs associated with dilutive potential ordinary shares, and
- the weighted average number of additional ordinary shares that would have been outstanding assuming the conversion of all dilutive potential ordinary shares.

3.26 Dividend income

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

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.27 Leases

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group.

Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices.

Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants other than the security interests in the leased assets that are held by the lessor. Leased assets may not be used as security for borrowing purposes.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable by the Group under residual value guarantees;

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.27 Leases (Continued)

- the exercise price of a purchase option if the Group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the Group exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

To determine the incremental borrowing rate, the Group:

- where possible, uses recent third-party financing received by the individual lessee as a starting point, adjusted to reflect changes in financing conditions since third party financing was received;
- uses a build-up approach that starts with a risk-free interest rate adjusted for credit risk for leases held by the Group, which does not have recent third-party financing, and,
- makes adjustments specific to the lease term, country, currency and security.

If a readily observable amortising loan rate is available to the individual lessee (through recent financing or market data) which has a similar payment profile to the lease, then the Group entities use that rate as a starting point to determine the incremental borrowing rate.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.27 Leases (Continued)

The Group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

Lease payments are allocated between principal and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Right-of-use assets are measured at cost comprising the following:

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

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis as follows:

Buildings	2 – 20 years
Machinery	2 – 10 years
Land use rights	10 – 50 years

If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.27 Leases (Continued)

Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. The Group applies the short-term lease recognition exemption to its short-term leases of machinery and equipment (that is those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for leases of low-value assets to leases of office equipment that are considered to be of low value (i.e. below RMB30,000).

Rental income

Rental income is recognised on a time proportion basis over the lease terms. Variable lease payments that do not depend on an index or a rate are recognised as income in the accounting period in which they are incurred.

3.28 Dividend distribution

Provision is made for the amount of any dividend declared, being appropriately authorised and no longer at the discretion of the entity, on or before the end of the reporting period but not distributed at the end of the reporting period.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.29 Government grants

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

Asset-related government grants are recognised when the government document designates that the government grants are used for constructing or forming long-term assets. If the government document is inexplicit, the Group should make a judgement based on the basic conditions to obtain the government grants, and recognises them as asset-related government grants if the conditions are to construct or to form long-term assets. Otherwise, the government grants should be income-related.

For asset-related government grants that is related to long lived assets that already exist at the time of recognising the government grant, the grant is deducted in calculating the carrying amount of the asset. The grant is recognised in profit or loss over the life of a depreciable asset as a reduced depreciation expense. If the asset is not yet purchased or constructed at the time of recognising the government grant, the grant is recognised as deferred income and will be deducted from the cost of the asset once the asset is recognised.

Income-related government grants that are specific to compensate expenses or costs that have already incurred, they are directly recognised in profit or loss for the current period as deduction of the related expenses or costs. If the income-related government grants are specific to compensate future expenses or costs of the Group, they are recognised as deferred income and will be released to profit or loss when the related expenses or costs are incurred.

3 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

3.30 Interest income

Interest income from financial assets at FVPL is included in the net fair value gains/ (losses) on these assets. Interest income on financial assets at amortised cost and financial assets at FVOCI calculated using the effective interest method is recognised in profit or loss as part of other income. Interest income is presented as finance income where it is earned from financial assets that are held for cash management purposes. Any other interest income is included in other income.

Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset except for financial assets that subsequently become credit-impaired. For credit-impaired financial assets the effective interest rate is applied to the net carrying amount of the financial asset (after deduction of the loss allowance).

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

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

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements

In the process of applying the Group's accounting policies and preparing the Group's consolidated financial statements, management has made the following judgements, apart from those involving estimates, which have a significant effect on the amounts recognised in the consolidated financial statements.

(a) Significant influence over an entity in which the Group holds less than 20% of voting rights

At 31 December 2022, the Group owned a 6.68% equity interest in China Copper Mineral Resources Co., Ltd. ("China Resources") (中銅礦產資源有限公司). The Group considers that it has significant influence over Chalco Resources even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the five directors of the Board of Directors of Chalco Resources, thus have the right to participate in decision making of China Resources.

At 31 December 2022, the Group owned a 16% equity interest in Baise New Aluminum Power Co., Ltd. ("New Aluminum Power") (百色新鋁電力有限公司). The Group considers that the Group has significant influence over New Aluminum Power even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the nine directors of the Board of Directors of New Aluminum Power, thus have the right to participate in decision making of New Aluminum Power.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements (Continued)

(a) Significant influence over an entity in which the Group holds less than 20% of voting rights (Continued)

At 31 December 2022, the Group owned 14.71% of the voting right of Chinalco Capital Holdings Co., Ltd. ("Chinalco Capital") (中鋁資本控股有限公司). The Group considers that the Group has significant influence over Chinalco Capital even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the three directors of the Board of Directors of Chinalco Capital, thus have the right to participate in decision making of Chinalco Capital.

At 31 December 2022, the Group owned a 14.29% equity interest in Inner Mongolia Geliugou Co., Ltd. ("Inner Mongolia Geliugou") (內蒙古圪柳溝能源有限公司). The Group considers that it has significant influence over Inner Mongolia Geliugou even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the seven directors of the Board of Directors of Inner Mongolia Geliugou, thus have the right to participate in decision making of Inner Mongolia Geliugou.

At 31 December 2022, the Group owned a 19.49% equity interest in Chalco Innovation Development Investment Co., Ltd. ("Chalco Innovation") (中鋁創新開發投資有限公司). The Group considers that it has significant influence over Chalco Innovation even though it owns less than 20% of the voting rights, on the grounds that the Group can appoint one out of the seven directors of the Board of Directors of Chalco Innovation, thus have the right to participate in decision making of Chalco Innovation.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements (Continued)

(b) Consolidation of entities in which the Group holds less than a majority of voting rights

At 31 December 2022, the Company owned 29.10% of the total issued share capital of Yunnan Aluminum and was the largest shareholder of Yunnan Aluminum. Considering the following factors, the directors of the Company are of the view that the Company have defacto control over Yunnan Aluminum, and accordingly Yunnan Metallurgical is regarded as a de facto agent of the Company in respect of the shareholding of Yunnan Aluminum, and therefore consolidated Yunnan Aluminum in the Company's consolidated financial statements:

- (i) Yunnan Metallurgical, which is a fellow subsidiary of the Company under common control of Chinalco, is the second largest shareholder of Yunnan Aluminum with 13% of shareholding. Pursuant to share transfer agreement between the Company and Yunnan Metallurgical, Chinalco's directions to the Company and Yunnan Metallurgical, the Company will be able to nominate 6 more than half of directors out of 11 of Yunnan Aluminum. In addition, and pursuant to Chinalco's directions to the Company and Yunnan Metallurgical, the Company will have Yunnan Metallurgical's concerted action support in exercising voting rights at the board and shareholders' meeting. Consequently, the Company is able to have a majority voting rights at the board of Yunnan Aluminum and controls in aggregate 42.10% voting rights at the shareholders' meeting of Yunnan Aluminum.
- (ii) Other than the Company and Yunnan Metallurgical, the remaining investors of Yunan Aluminum are made up of a large number of widely dispersed, unrelated individual investors who do not have a mechanism to act collectively to veto the Company's decisions.
- (iii) Taking into account the large volume of inter-company transactions between the Group and Yunnan Aluminum and the similarity of industry and synergies of operation between the Group and Yunnan Aluminum, the Company has sufficient experience, ability and incentive to direct the relevant activities of Yunnan Aluminum, which expose the Group to variable returns, thus the Group have control over Yunnan Aluminum.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Judgements (Continued)

(b) Consolidation of entities in which the Group holds less than a majority of voting rights (Continued)

At 31 December 2022, the Group owned a 40.23% equity interest in Ningxia Yinxing Energy Co., Ltd. ("Yinxing Energy") (寧夏銀星能源股份有限公司). Since the remaining 59.77% of the equity shares in Yinxing Energy are held by a large number of individual shareholders, in opinion of the directors of the Company, the Group has control over Yinxing Energy, and Yinxing Energy continues to be included in the consolidation scope.

At 31 December 2022, the Company owned a 40% equity interest in Guizhou Huaren New Materials Co., Ltd. ("Guizhou Huaren") (貴州華仁新材料有限公司). In accordance with the acting-in-concert agreement signed between the Company and Qingzhen Industry Investment Co., Ltd. ("Qingzhen Industry") (清鎮市工業投資有限公司) and Guizhou Chengqian Enterprise (Group) Co., Ltd. ("Guizhou Chengqian") (貴州成黔企業(集團)有限公司), Qingzhen Industry and Guizhou Chengqian would exercise the shareholders' and board of directors' votes in concert with the Group's voting decisions. Therefore, the directors of the Company believe that the Company has control over Guizhou Huaren and consolidated Guizhou Huaren's financial statements.

At 31 December 2022, the Company owned 40% of the shares of Shanxi Chinalco Resources (山西中鋁華潤有限公司). In accordance with the acting-in-concert agreement signed between the Company and China Resources Power Engineering Services Co., Ltd. ("China Resources Power Engineering") (華潤電力工程服務有限公司), China Resources Power Engineering would exercise the shareholders' and board of directors' votes in concert with the Group. Therefore, the directors of the Company believe that the Company has control over Shanxi Zhongrun and consolidated Shanxi Zhongrun.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below. The Group's assumptions and estimates are based on parameters available when the consolidated financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

(a) Impairment assessment of property, plant and equipment

As at 31 December 2022, the Group's net carrying amount of property, plant and equipment was RMB109,277 million. Management assesses related assets for potential impairment whenever there are indications that the carrying value of an asset or a group of assets may not be recoverable. As at 31 December 2022, management performed impairment assessment on property, plant and equipment with impairment indications at the level of cash generating unit ("CGU") to which the property, plant and equipment was allocated using discounted cash flow model. The discounted cash flows model used for the impairment assessment of property, plant and equipment involved significant assumptions including product prices, discount rate and the fair value of certain property, plant and equipment to be disposed of. Based on the impairment test, RMB3,795 million of impairment losses were recognised by management for property, plant and equipment for the year ended 31 December 2022.

(b) Impairment assessment of goodwill

As at 31 December 2022, the Company's carrying value of goodwill was RMB3,495 million. Management performed impairment assessment of goodwill on an annual basis. When performing the impairment assessment, the recoverable amount of the CGU to which the goodwill was allocated was estimated by management using discounted cash flow model, and compared with the carrying amount of the CGU to determine if goodwill was impaired. The discounted cash flow models used for the impairment assessment of goodwill involved significant assumptions including product prices, the long-term growth rate and the discount rate. Based on the impairment test, RMB15 million of impairment losses were recognised by management for goodwill for the year ended 31 December 2022.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(c) Property, plant and equipment and intangible assets (excluding goodwill) – estimated useful lives and residual values

The Group determines the estimated useful lives and residual values (if applicable) and consequently the related depreciation/amortisation charges for its property, plant and equipment and intangible assets (excluding goodwill). These estimates are based on the historical experience, anticipated change of technology, market condition and the actual consumptions of related assets. The depreciation/amortisation charge will increase when useful lives are less than previously estimated. In addition, technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down.

Actual economic lives may differ from estimated useful lives and actual residual values may differ from estimated residual values. Periodic review could result in change in useful lives and residual values and therefore change in depreciation/amortisation expense in future periods.

(d) Coal reserve estimates and units-of-production amortisation for coal mining rights

Coal reserves are estimates of the quantity of ores that can be economically and legally extracted from the Group's coal mines. The proved and probable reserves are calculated in accordance with the standards of the mine concerned. Estimates and assumptions are required with a number of factors including production techniques, production costs. Because the economic assumptions used to estimate coal reserves changes from time to time, estimates of coal reserves may change accordingly. Changes in reported reserves may affect the Group's depreciation and amortisation recognised by the unit-of-production basis.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(e) Estimated net realisable value of inventories

In accordance with the Group's accounting policy, the Group estimated net realisable value of inventories based on specific facts and circumstances. For different types of inventories, it requires the estimation on selling prices, costs of conversion, selling expenses and the related tax expense to calculate the net realisable amount of inventories. For inventories held for executed sales contracts, management estimates the net realisable amount based on the contracted price. For raw materials and work-in-progress, management has established a model in estimating the net realisable amount at which the inventories can be realised in the normal course of business after considering the manufacturing cycles, production capacity and forecasts, estimated future conversion costs and selling prices. Management also takes into account the price or cost fluctuations and other related matters occurring after the end of the reporting period which reflect conditions that existed at the end of the reporting period.

It is reasonably possible that if there is a significant change in circumstances including the Group's business and the external environment, outcomes within the next financial year would be significantly affected.

(f) Investments in joint ventures and associates – recoverable amount

In accordance with the Group's accounting policy, each investment in a joint venture and an associate is evaluated in every reporting period to determine whether there are any indicators of impairment. If any such indicators exists, an estimate of the recoverable amount is performed and an impairment loss is recognised to the extent that the carrying amount exceeds the recoverable amount. The recoverable amount of the investment in a joint venture and an associate is measured at the higher of fair value less costs of disposal and value in use.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(g) Determination of the lease term

The Group leased certain land use rights and property, plant and equipment from Chinalco. The lease term is determined based on the Group's assessment if the related termination option or extension option would be reasonably exercised taking into account the use of the land and operating status. The Group will reassess the lease term if any significant events or changes in circumstances that may have impact on the exercise of such options and are under the control of the Group occurred.

(h) Income tax

The Group estimates its income tax provision and deferred taxation in accordance with the prevailing tax rules and regulations, taking into account any special approvals obtained from the relevant tax authorities and any preferential tax treatment to which it is entitled in each location or jurisdiction in which the Group operates. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, the differences will impact on the income tax and deferred tax provisions in the period in which the determination is made.

Deferred tax assets are recognised for unused tax losses and deductible temporary differences, such as the provision for impairment of receivables, inventories and property, plant and equipment and accruals of expenses not yet deductible for tax purposes, to the extent that it is probable that taxable profits will be available against which the losses deductible temporary difference can be utilised. Significant estimation is required in determining the recoverability of deferred tax assets.

In the event that future tax rules and regulations or related circumstances change, adjustments to current and deferred taxation may be necessary which would impact on the Group's results or financial position.

4 SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES (CONTINUED)

Estimates and assumptions (Continued)

(i) Impairment of receivables

The loss allowances for receivables are based on assumptions about risk of default and expected loss rates to determine the expected loss. The Group uses judgement in making these assumptions and selecting the inputs to the impairment calculation, based on the Group's history, existing market conditions as well as forward looking estimates at the end of each reporting period.

The Group takes into account different macroeconomic scenarios in considering forward looking information in mainland China. The Group regularly monitors and reviews the key macroeconomic assumptions and parameters related to the calculation of expected credit losses, including the risk of economic downturn, external market environment, technological environment, changes in customer conditions, gross domestic product ("GDP") and consumer price index ("CPI"), etc. The key macroeconomic parameters are listed below :

Year ended 31 December 2022	Scenarios			
	Year	Basic	Negative	Positive
Growth Rate of GDP	2023	5.04%	4.70%	6.04%
Growth Rate of CPI	2023	2.12%	1.63%	2.67%

Year ended 31 December 2021	Scenarios			
	Year	Basic	Negative	Positive
Growth Rate of GDP	2022	5.30%	5.04%	5.57%
Growth Rate of CPI	2022	2.20%	2.09%	2.31%

5 REVENUE AND SEGMENT INFORMATION

(a) Revenue

Revenue recognised during the year is as follows:

	For the year ended 31 December	
	2022	2021 (Restated)
Revenue from contracts with customers (net of value-added tax)		
Sale of goods	288,853,556	297,102,961
Transportation services	1,817,566	1,470,334
	290,671,122	298,573,295
Revenue from other sources		
Rental income	316,820	312,055
	290,987,942	298,885,350

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(a) Revenue (Continued)

	For the year ended 31 December 2022						
	Alumina segment	Primary Aluminum segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	Total
Type of goods or services							
Sales of goods	55,513,960	138,428,806	9,322,537	252,408,567	1,840,375	(168,660,689)	288,853,556
Transportation services	-	-	-	6,397,541	-	(4,579,975)	1,817,566
Total	55,513,960	138,428,806	9,322,537	258,806,108	1,840,375	(173,240,664)	290,671,122
Geographical markets							
Mainland China	55,513,960	138,428,806	9,322,537	245,370,030	1,840,375	(173,240,664)	277,235,044
Outside of Mainland China	-	-	-	13,436,078	-	-	13,436,078
Total	55,513,960	138,428,806	9,322,537	258,806,108	1,840,375	(173,240,664)	290,671,122
Timing of revenue recognition							
Goods transferred at a point in time	55,513,960	138,428,806	9,322,537	252,408,567	1,840,375	(168,660,689)	288,853,556
Services transferred over time	-	-	-	6,397,541	-	(4,579,975)	1,817,566
Total	55,513,960	138,428,806	9,322,537	258,806,108	1,840,375	(173,240,664)	290,671,122

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(a) Revenue (Continued)

- (i) The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period:

	For the year ended 31 December	
	2022	2021 (Restated)
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:		
Sale of goods	2,124,417	1,349,157
Others	66,228	88,090
	2,190,645	1,437,247

(ii) Performance obligations

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

Revenue from sales of products (including sales of the other materials)

The performance obligation is satisfied upon delivery of the industrial products and payment is generally due within 30 to 90 days from delivery, except for new customers, where advance is normally required.

Sales of goods were made in a short period of time and the performance obligation was mostly satisfied in one year or less at the end of each year, thus the Group applied the expedient of not to disclose the transaction price allocated to unsatisfied performance obligation.

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)**(a) Revenue (Continued)****(ii) Performance obligations (Continued)*****Transportation service***

The performance obligation is satisfied over time as services are rendered and payment is generally due upon completion of the relevant services.

Amounts expected to be recognised as revenue from contract liabilities at 31 December 2022:

	For the year ended 31 December	
	2022	2021 (Restated)
Within one year	2,049,014	2,363,043
After one year	93,240	116,545
	2,142,254	2,479,588

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information

The executive presidents committee of the Company have been identified as the chief operating decision makers. The committee is responsible for the review of the internal reports in order to allocate resources to operating segments and assess their performance.

The committee considers the business from a product perspective comprising alumina, primary aluminum and energy for the Group's manufacturing business, which are identified as separate reportable operating segments. In addition, the Group's trading business is identified as a separate reportable operating segment. The Group's reportable operating segments also include corporate and other operating segments.

The committee assesses the performance of operating segments based on profit or loss before income tax in related periods. The manner of assessment used by the committee is consistent with that applied to the consolidated financial information for the year ended 31 December 2021. Management has determined the reportable operating segments based on the reports reviewed by the committee that are used to make strategic decisions.

The Group's five reportable operating segments are summarised as follows:

- The alumina segment, which consists of mining and purchasing bauxite and other raw materials, refining bauxite into alumina, and selling alumina both internally to the Group's aluminum enterprises and trading enterprises and externally to customers outside the Group. This segment also includes the production and sale of multi-form alumina bauxite.
- The primary aluminum segment, which consists of procuring alumina and other raw materials, supplemental materials and electricity power, smelting alumina to produce primary aluminum which is sold to the Group's trading enterprises and external customers, including Chinalco and its subsidiaries. This segment also includes the production and sale of carbon products and aluminum alloy and other aluminum products.

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

- The trading segment, which consists of the trading of alumina, primary aluminum, aluminum fabrication products, other non-ferrous metal products, coal products and raw materials and supplemental materials and logistics and transport services to internal manufacturing plants and external customers. The products are sourced from fellow subsidiaries and international and domestic suppliers of the Group. Sales of products manufactured by the Group's manufacturing business are included in the total revenue of the trading segment and are eliminated with the segment revenue of the respective segments which supplied the products to the trading segment.
- The energy segment mainly includes coal mining, electricity generation by thermal power, wind power and solar power, new energy related equipment manufacturing business. Sales of coals are mainly to the Group's internal and external coal consuming customers; electricity is sold to regional power grid corporations.
- Corporate and other operating segments, which mainly include management of corporate, research and development activities and others.

Prepaid current income tax and deferred tax assets are excluded from segment assets, and income tax payable and deferred tax liabilities are excluded from segment liabilities. All sales among the reportable operating segments were conducted on terms mutually agreed among group companies, and have been eliminated upon consolidation.

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2022						
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	Total
Total revenue	55,761,730	138,465,822	9,322,537	258,854,321	1,943,932	(173,360,400)	290,987,942
Inter-segment revenue	(39,350,290)	(51,962,565)	(261,486)	(80,283,574)	(1,502,485)	173,360,400	-
Sales of self-produced products				48,849,680			
Sales of products sourced from external suppliers				129,721,067			
Revenue from external customers	16,411,440	86,503,257	9,061,051	178,570,747	441,447	-	290,987,942
Segment profit /(loss) before income tax	340,451	10,346,336	2,200,960	2,013,377	(843,055)	(849,101)	13,208,968
Income tax expense							(2,365,639)
Profit for the year							10,843,329

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2022						Total
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter-segment elimination	
Other items							
Finance income	62,662	86,864	29,589	20,991	277,031	–	477,137
Finance costs	(713,584)	(1,088,391)	(580,129)	(166,221)	(1,346,542)	–	(3,894,867)
Share of profits and losses of joint ventures	75,405	–	(7,143)	9,065	101,583	–	178,910
Share of profits and losses of associates	(46,239)	(94,941)	(71,493)	45,847	297,458	–	130,632
Depreciation of right-of-use assets	(473,827)	(601,898)	(129,335)	(21,335)	(55,967)	–	(1,282,362)
Depreciation and amortisation (excluding the depreciation of right-of-use assets)	(3,674,136)	(3,957,718)	(1,645,072)	(341,700)	(72,831)	–	(9,691,457)
Gains/(losses) on disposal of property, plant and equipment, intangible assets and right-of-use assets	90,041	180,999	(1,621)	56,280	(2,040)	–	323,659
Gain on disposal of business	–	–	–	–	27,804	–	27,804
Realised gain on futures contracts, net	–	–	–	20,104	216,707	–	236,811
Other income	25,510	44,628	54,727	110,885	35	–	235,785
Impairment loss on intangible assets	(75,842)	–	–	–	–	–	(75,842)
Impairment loss on property, plant and equipment	(3,160,902)	(634,518)	–	–	–	–	(3,795,420)
Unrealised gain on futures contracts, net	–	–	–	47,725	11,346	–	59,071

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2022						Total
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	
(Losses)/gains on disposal of a subsidiaries	(19,530)	61	4,567	25,296	75,949	–	86,343
Changes for impairment of inventories	(392,513)	(1,625)	558	(93,295)	3,582	–	(483,293)
Provision for impairment of receivables	(407,608)	(26,737)	(25,619)	53,201	(7,376)	–	(414,139)
Dividends of equity investments at fair value through other comprehensive income	–	–	2,160	–	9,339	–	11,499
Investments in associates	187,806	500,489	689,399	396,810	4,628,134	–	6,402,638
Investments in joint ventures	1,076,120	–	343,745	48,675	1,871,427	–	3,339,967
Additions during the period:							
Intangible assets	138,835	40,719	17,722	–	76	–	197,352
Right-of-use assets	89,337	449,305	1,496	140,021	–	–	680,159
Property, plant and equipment	728,647	852,512	921,542	45,186	49,865	–	2,597,752

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021 (Restated)						
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	Total
Total revenue	54,043,368	118,513,506	7,915,219	252,704,917	1,453,108	(135,744,768)	298,885,350
Inter-segment revenue	(36,463,601)	(39,899,709)	(240,575)	(58,162,607)	(978,276)	135,744,768	-
Sales of self-produced products				47,246,018			
Sales of products sourced from external suppliers				147,296,292			
Revenue from external customers	17,579,767	78,613,797	7,674,644	194,542,310	474,832	-	298,885,350
Segment profit/(loss)before income tax	2,798,129	12,783,818	(234,808)	1,336,268	(1,981,441)	(515,538)	14,186,428
Income tax expense							(2,869,551)
Profit for the year							11,316,877

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021 (Restated)						
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	Total
Other items							
Finance income	117,265	71,097	38,313	50,829	33,599	–	311,103
Finance costs	(1,041,744)	(1,450,695)	(578,079)	(119,398)	(1,342,750)	–	(4,532,666)
Share of profits of joint ventures	80,612	–	16,095	13,240	54,153	–	164,100
Share of profits/(losses) of associates	(3,546)	(2,182)	(633,467)	45,538	170,410	–	(423,247)
Depreciation of right-of-use assets	(334,825)	(226,526)	(32,088)	(128,043)	(50,469)	–	(771,951)
Depreciation and amortisation (excluding the depreciation of right-of-use assets)	(3,491,950)	(4,169,274)	(1,889,351)	(164,469)	(74,119)	–	(9,789,163)
(Losses)/gains on disposal of property, plant and equipment, intangible assets and right-of- use assets	(611,828)	(58,699)	(9,772)	3,222	(2,320)	–	(679,397)
Realised loss on futures, forward and option contracts, net	–	–	–	(132,354)	(413,171)	–	(545,525)
Other income	11,909	57,298	56,022	47,836	91	–	173,156
Impairment loss on intangible assets	(413,036)	(2,623)	–	–	–	–	(415,659)
Impairment loss on property, plant and equipment	(1,854,694)	(2,206,546)	(3,433)	–	–	–	(4,064,673)
Unrealised losses on futures contracts, net	–	–	–	(30,552)	(28,657)	–	(59,209)

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	Year ended 31 December 2021 (Restated)						Total
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Inter- segment elimination	
Losses on disposal of a subsidiaries	-	-	(27,404)	-	-	-	(27,404)
Changes for impairment of inventories	(16,098)	(114,170)	12,250	(13,039)	(2,601)	-	(133,658)
Provision for impairment of receivables	(122,370)	(40,627)	(176,715)	(330,122)	(720,931)	-	(1,390,765)
Dividends from other financial assets measured at fair value	-	4,384	-	3,333	7,579	-	15,296
Investments in associates	196,453	578,313	759,194	382,062	4,525,771	-	6,441,793
Investments in joint ventures	1,076,120	-	353,177	55,712	1,865,950	-	3,350,959
Additions during the period:							
Intangible assets	97,925	22,351	-	140	-	-	120,416
Right-of-use assets	2,934,500	2,721,001	377	212,812	276,430	-	6,145,120
Property, plant and equipment	1,951,823	1,167,984	391,894	35,467	89,344	-	3,636,512

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

As at 31 December 2022						
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	Total
Segment assets	90,762,410	94,207,732	34,235,502	35,025,454	42,393,166	296,624,264
<i>Reconciliation:</i>						
Elimination of inter-segment receivables						(85,734,994)
Other eliminations						(741,195)
Corporate and other unallocated assets:						-
Deferred tax assets						2,057,900
Prepaid income tax						142,056
Total assets						212,348,031
Segment liabilities	48,985,559	50,177,428	18,837,349	21,225,051	69,257,860	208,483,247
Elimination of inter-segment payables						(85,734,994)
Corporate and other unallocated liabilities:						-
Deferred tax liabilities						1,451,692
Income tax payable						392,119
Total liabilities						124,592,064

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

	As at 31 December 2021 (Restated)					Total
	Alumina Segment	Primary aluminum Segment	Energy Segment	Trading Segment	Corporate and other operating segments	
Segment assets	97,099,222	90,931,136	35,261,548	31,625,689	48,195,444	303,113,039
<i>Reconciliation:</i>						
Elimination of inter-segment receivables						(79,480,000)
Other eliminations						(928,814)
Corporate and other unallocated assets:						
Deferred tax assets						2,096,459
Prepaid income tax						62,139
Total assets						224,862,823
Segment liabilities	52,154,184	47,125,596	25,419,575	21,037,605	66,657,841	212,394,801
Elimination of inter-segment payables						(79,480,000)
Corporate and other unallocated liabilities:						
Deferred tax liabilities						1,403,291
Income tax payable						847,163
Total liabilities						135,165,255

5 REVENUE AND SEGMENT INFORMATION (CONTINUED)

(b) Segment information (Continued)

The Group mainly operates in Mainland China. Geographical information on operating segments is as follows:

	For the year ended 31 December	
	2022	2021 (Restated)
Segment revenue from external customers		
–Mainland China	277,551,864	285,593,071
–Outside Mainland China	13,436,078	13,292,279
	290,987,942	298,885,350
	31 December 2022	31 December 2021 (Restated)
Non-current assets (excluding financial assets and deferred tax assets)		
–Mainland China	150,927,698	165,459,440
–Outside Mainland China	2,595,140	2,627,731
	153,522,838	168,087,171

For the year ended 31 December 2022, revenues of approximately RMB53,183 million (2021: RMB65,128 million) were derived from entities directly or indirectly owned or controlled by the PRC government including Chinalco. These revenues are mainly attributable to the alumina, primary aluminum, energy and trading segments. There were no individual customers that contributed 10% or more of the Group's revenue during the years ended 31 December 2022 and 2021.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

6 INTANGIBLE ASSETS

	Goodwill	Mining rights	Mineral exploration rights	Computer software, production quota and others	Total
Year ended 31 December 2022					
Opening net carrying amount (Restated)	3,509,515	7,315,211	984,286	1,524,976	13,333,988
Additions	–	134,806	19,356	43,190	197,352
Disposals	–	–	–	(1,774)	(1,774)
Disposal of subsidiaries	–	–	–	(8,572)	(8,572)
Impairment	(15,495)	(60,347)	–	–	(75,842)
Amortisation	–	(444,764)	–	(58,157)	(502,921)
Transfer from property, plant and equipment (Note 7)	–	–	–	1,945	1,945
Currency translation differences	874	5,773	–	–	6,647
Closing net carrying amount	3,494,894	6,950,679	1,003,642	1,501,608	12,950,823
As at 31 December 2022					
Cost	3,510,864	10,585,156	1,239,376	2,118,444	17,453,840
Accumulated amortisation and impairment	(15,970)	(3,634,477)	(235,734)	(616,836)	(4,503,017)
Net carrying amount	3,494,894	6,950,679	1,003,642	1,501,608	12,950,823

6 INTANGIBLE ASSETS (CONTINUED)

	Goodwill	Mining rights	Mineral exploration rights	Computer software, production quota and others	Total
Year ended 31 December 2021					
Opening net carrying amount					
(Restated)	3,509,857	7,638,216	1,276,295	1,565,165	13,989,533
Additions	–	98,352	13,452	8,612	120,416
Disposals	–	(3,639)	–	–	(3,639)
Impairment	–	(175,245)	(237,791)	(2,623)	(415,659)
Amortisation	–	(351,748)	–	(55,539)	(407,287)
Transfer from property, plant and equipment (<i>Note 7</i>)	–	45,522	–	10,346	55,868
Currency translation differences	(342)	(1,692)	(2,225)	(985)	(5,244)
Reclassifications and internal transfers	–	65,445	(65,445)	–	–
Closing net carrying amount	3,509,515	7,315,211	984,286	1,524,976	13,333,988
As at 31 December 2021					
Cost	3,509,515	10,435,028	1,220,020	2,098,631	17,263,194
Accumulated amortisation and impairment	–	(3,119,817)	(235,734)	(573,655)	(3,929,206)
Net carrying amount	3,509,515	7,315,211	984,286	1,524,976	13,333,988

6 INTANGIBLE ASSETS (CONTINUED)

For the year ended 31 December 2022, the amortisation expenses of intangible assets recognised in profit or loss were analysed as follows:

	31 December 2022	31 December 2021 (Restated)
Cost of sales	474,639	384,383
General and administrative expenses	28,282	22,904
	502,921	407,287

As at 31 December 2022, the Group pledged mining rights and mineral exploration rights totalling RMB1,353 million (31 December 2021: RMB1,400 million) for certain interest-bearing loans and borrowings as set out in Note 26.

6 INTANGIBLE ASSETS (CONTINUED)

Impairment testing of goodwill

The lowest level within the Group at which goodwill is monitored for internal management purposes is the operating segment before aggregation. Therefore, goodwill is allocated to the Group's CGUs and groups of CGUs that are expected to benefit from the synergies of the relevant business combination. A summary of goodwill allocation is presented below:

	31 December 2022		31 December 2021	
	Alumina	Primary aluminum	Alumina	Primary aluminum
Qinghai Branch	–	217,267	–	217,267
Guangxi Branch	189,419	–	189,419	–
Lanzhou Aluminum Co., Ltd.	–	1,924,259	–	1,924,259
PT. Nusapati Prima ("PTNP")	–	–	14,621	–
Shanxi Huaxing	1,163,949	–	1,163,949	–
	1,353,368	2,141,526	1,367,989	2,141,526

The recoverable amount of the CGU or group of CGUs is determined based on value-in-use calculations. These calculation of VIU use pre-tax cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the 5-year period are extrapolated using the estimated growth rate of 2% (2021: 2%) not exceeding the long-term average growth rate for the businesses in which the CGU operates. Other key assumptions applied in the impairment testing include future prices of aluminum and alumina and the discount rate. Management determined these key assumptions based on past performance and their expectations on market development. Furthermore, the Group adopts a pre-tax and inflation rate of 12.62% (2021: 12.62%) that reflects specific risks related to CGU or groups of CGUs as the discount rate. These estimates and judgments may be affected by unexpected changes in the future market or economic conditions.

Based on their assessment, other than the impairment of PTNP in 2022, there was no other impairment of goodwill as at 31 December 2022 and 31 December 2021.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

7 PROPERTY, PLANT AND EQUIPMENT

	Buildings and infrastructure	Machinery	Transportation facilities	Office and other equipment	Construction in progress	Total
Year ended 31 December 2022						
Opening net carrying amount (Restated)	51,127,711	63,707,307	1,150,354	422,674	4,974,974	121,383,020
Reclassifications and internal transfers	1,258,516	2,494,471	73,713	264,322	(4,091,022)	-
Transfer to intangible assets <i>(Note 6)</i>	-	-	-	-	(1,945)	(1,945)
Transfer from right-of-use assets and non-current assets <i>(i)</i>	-	69,673	-	-	-	69,673
Transfer to investment properties <i>(Note 8)</i>	(47,419)	-	-	-	-	(47,419)
Additions	245,583	637,092	16,474	36,798	1,661,805	2,597,752
Disposal of subsidiaries <i>(ii)</i>	(275,851)	(622,777)	(2,731)	(13,046)	-	(914,405)
Government grants	(42,650)	(31,401)	-	-	-	(74,051)
Disposals <i>(iii)</i>	(201,361)	(588,064)	(10,265)	(2,950)	(235,477)	(1,038,117)
Depreciation	(2,321,947)	(6,381,950)	(172,736)	(66,984)	-	(8,943,617)
Impairment loss <i>(iv)</i>	(1,307,597)	(2,458,240)	(1,092)	(178)	(28,313)	(3,795,420)
Currency translation differences	32,739	8,504	151	15	-	41,409
Closing net carrying amount	48,467,724	56,834,615	1,053,868	640,651	2,280,022	109,276,880
As at 31 December 2022						
Cost	79,348,680	139,849,462	2,865,120	1,228,931	2,799,011	226,091,204
Accumulated depreciation and impairment	(30,880,956)	(83,014,847)	(1,811,252)	(588,280)	(518,989)	(116,814,324)
Net carrying amount	48,467,724	56,834,615	1,053,868	640,651	2,280,022	109,276,880

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	Buildings	Machinery	Transportation facilities	Office and other equipment	Construction in progress	Total
Year ended 31 December 2021 (Restated)						
Opening net carrying amount	53,851,749	69,545,237	1,226,487	395,840	5,906,059	130,925,372
Reclassifications and internal transfers	1,614,203	1,787,874	124,273	66,887	(3,593,237)	-
Transfer to intangible assets (Note 6)	-	-	-	-	(55,868)	(55,868)
Transfer from right-of-use assets and non-current assets (i)	143,646	1,398,593	-	85	-	1,542,324
Transfer to investment properties (Note 8)	(139,377)	-	-	-	-	(139,377)
Transfer to right-of-use assets (Note 22)	-	-	-	-	(68,377)	(68,377)
Additions	28,425	320,881	14,386	9,954	3,262,866	3,636,512
Government grants	(447)	(81,171)	-	-	-	(81,618)
Disposals	(136,718)	(723,183)	(14,711)	(5,726)	(275,834)	(1,156,172)
Depreciation	(2,149,404)	(6,768,573)	(196,094)	(43,880)	-	(9,157,951)
Impairment loss	(2,105,735)	(1,754,211)	(3,789)	(303)	(200,635)	(4,064,673)
Currency translation differences	21,369	(18,140)	(198)	(183)	-	2,848
Closing net carrying amount	51,127,711	63,707,307	1,150,354	422,674	4,974,974	121,383,020
As at 31 December 2021 (Restated)						
Cost	78,450,622	138,836,999	2,888,838	972,191	5,842,483	226,991,133
Accumulated depreciation and impairment	(27,322,911)	(75,129,692)	(1,738,484)	(549,517)	(867,509)	(105,608,113)
Net carrying amount	51,127,711	63,707,307	1,150,354	422,674	4,974,974	121,383,020

- (i) After the expiration of sale and leaseback contracts, the right-of-use assets recognised previously upon initial adoption of IFRS 16, were recognised as property, plant and equipment.
- (ii) In 2022, certain subsidiaries were disposed of or liquidated, resulted in a decrease in property, plant and equipment with carrying amount of RMB914 million.
- (iii) In 2022, property, plant and equipment with carrying amount of RMB610 million was disposed of by the Group as consideration for a capital investment in Chinalco High-end Manufacturing Co., Ltd. ("Chinalco High-end Manufacturing") (Note (10)).

7 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

- (iv) In the prior years, the Group terminated an alumina production line and the related facilities as a result of urban development by a local government. Based on the relevant rules and regulations, the Group would be entitled to a compensation by the local government from the commercial development of the land on which the production line was located. During the year ended 31 December 2022, the Group was informed by the local government that, because of the real estate market outlook and the change in urban planning, it is no longer feasible to commercially develop this piece of land and to compensate the Group in any form. The change of government decision constitutes an impairment indicator. An impairment test was performed by management based on fair value less cost of disposal and an impairment loss of RMB2,101 million was recognised as at 31 December 2022.

The land occupied by the terminated alumina production line is leased from the Chinalco group. The Group reassessed the leasing term, and accordingly, land use right assets of RMB893 million and lease liabilities of RMB927 million were written off and a disposal gain of RMB35 million was recognised in 2022.

Due to the change of production plan and other factors, certain asset groups of the Group were in the status of shutdown, temporary idleness or under-capacity production. The Group considered that there were indications of impairment in these asset groups and conducted impairment tests. As a result, impairment provision of RMB1,694 million was made for property, plant and equipment during the year ended 31 December 2022 (2021: RMB4,065 million).

- (v) As at 31 December 2022, the Group pledged certain property, plant and equipment with a net carrying value amounting to RMB4,967 million (31 December 2021: RMB5,680 million) for certain interest-bearing loans and borrowings as set out in Note 26.
- (vi) As at 31 December 2022, the Group was in the process of applying for the ownership certificates of buildings with a net carrying value of RMB4,822 million (31 December 2021: RMB4,904 million). There has been no litigations, claims or assessments against the Group for compensation with respect to the use of these buildings as at the date of approval of these financial statements. Management considers that it is probable that the Group will be able to obtain the relevant ownership certificates from the appropriate authorities.
- (vii) For the year ended 31 December 2022, depreciation expenses recognised in profit or loss are analysed as follows:

	31 December 2022	31 December 2021 (Restated)
Cost of sales	8,573,282	8,710,009
General and administrative expenses	213,483	253,864
Research and development expenses	152,217	185,108
Selling and distribution expenses	4,635	8,970
	8,943,617	9,157,951

8 INVESTMENT PROPERTIES

	Buildings	Land use rights	Total
Year ended 31 December 2022			
Opening net carrying amount	608,966	1,205,623	1,814,589
Transfer from property, plant and equipment (Note 7)	47,419	–	47,419
Transfer to right-of-use assets (Note 22)	–	(5,997)	(5,997)
Disposals	(982)	–	(982)
Additions	92,708	14,663	107,371
Depreciation	(23,690)	(21,087)	(44,777)
Closing net carrying amount	724,421	1,193,202	1,917,623
As at 31 December 2022			
Cost	966,751	1,354,998	2,321,749
Accumulated depreciation and impairment	(242,330)	(161,796)	(404,126)
Net carrying amount	724,421	1,193,202	1,917,623

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

8 INVESTMENT PROPERTIES (CONTINUED)

	Buildings	Land use rights	Total
Year ended 31 December 2021			
Opening net carrying amount	481,489	1,120,387	1,601,876
Transfer from property, plant and equipment (<i>Note 7</i>)	139,377	–	139,377
Transfer from right-of-use assets (<i>Note 22</i>)	–	90,314	90,314
Others	–	7,472	7,472
Depreciation	(11,900)	(12,550)	(24,450)
Closing net carrying amount	608,966	1,205,623	1,814,589
As at 31 December 2021			
Cost	779,253	1,346,953	2,126,206
Accumulated depreciation and impairment	(170,287)	(141,330)	(311,617)
Net carrying amount	608,966	1,205,623	1,814,589

The Group's investment properties consist of land use rights held for rental income and buildings leased to third parties under operating leases.

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

(a) Investments in joint ventures

Movements in investments in joint ventures are as follows:

	31 December 2022	31 December 2021
As at 1 January	3,350,959	3,374,553
Share of profits for the year	178,910	164,100
Share of changes in reserves	4,302	60
Dividends declared	(194,204)	(187,754)
As at 31 December	3,339,967	3,350,959

As at 31 December 2022, all joint ventures of the Group were unlisted.

As at 31 December 2022, particulars of the Group's material joint venture is as follows:

Name	Place of establishment and operation	Registered and paid-in capital	Principal activities	Effective equity interest held		
				Ownership interest	Voting power	Profit sharing
Guangxi Huayin Aluminum Co., Ltd. PRC/Mainland China * ("Guangxi Huayin") (廣西華銀鋁業有限公司)		2,441,987	Manufacturing	33.00%	33.00%	33.00%

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

The English name represents the best effort by management of the Group in translating the Chinese name of the company as it does not have any official English name.

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(a) Investments in joint ventures (Continued)

The following table illustrates the summarised financial information in respect of Guangxi Huayin:

	31 December 2022	31 December 2021
Cash and cash equivalents	234,140	224,154
Other current assets	1,191,044	1,498,110
Current assets	1,425,184	1,722,264
Non-current assets	5,385,501	5,024,444
Current liabilities	1,705,062	1,844,884
Non-current liabilities	785,426	526,827
Net assets	4,320,197	4,374,997
Reconciliation to the Group's interest in the joint venture:		
Proportion of the Group's ownership	33.00%	33.00%
The Group's share of net assets of the joint venture	1,425,665	1,443,749
Carrying amount of the investment	1,425,665	1,443,749

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(a) Investments in joint ventures (Continued)

The following table illustrates the summarised financial information in respect of Guangxi Huayin: (Continued)

	31 December 2022	31 December 2021
Revenue	5,838,110	5,126,994
Gross profit	883,100	890,301
Interest income	15,671	14,465
Depreciation and amortisation	321,567	553,493
Interest expenses	35,989	40,506
Profit before income tax	270,748	246,447
Income tax	36,498	44,333
Other comprehensive income	–	–
Total comprehensive income for the year	234,250	202,114
Dividend received	99,000	99,000

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
(CONTINUED)****(a) Investments in joint ventures (Continued)**

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

	31 December 2022	31 December 2021
Share of the joint ventures' profits and losses for the year	102,180	96,255
Share of the joint ventures' total comprehensive income	102,180	96,255
Aggregate carrying amount of the Group's investments in joint ventures	1,914,302	1,907,210

There were no material contingent liabilities relating to the Group's interests in the joint ventures and the joint ventures themselves.

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(b) Investments in associates

Movements in investments in associates are as follows:

	31 December 2022	31 December 2021 (Restated)
As at 1 January	6,441,793	7,001,103
Capital injections	17,089	309,251
Capital reduction	–	(140,170)
Share of profits/(losses) for the year	130,632	(423,247)
Dividends declared	(104,781)	(315,722)
Share of changes in reserves	(6,098)	10,578
Impairment	(75,997)	–
As at 31 December	6,402,638	6,441,793

As at 31 December 2022, all associates of the Group were unlisted.

As at 31 December 2022, particular of the Group's material associate is as follow:

Name	Place of establishment and operation	Registered and paid-in capital	Principal activities	Effective equity interest held		
				Ownership interest	Voting power	Profit sharing
China Aluminum Investment Development Co., Ltd.(中鋁投資 發展有限公司)	PRC/Mainland China	1,229,748	Asset management	24.12%	24.12%	24.12%

China Aluminum Investment Development Co., Ltd., which is considered a material associate of the Group, is accounted for using the equity method.

The English name represents the best effort by management of the Group in translating the Chinese name of the company as it does not have any official English name.

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
(CONTINUED)****(b) Investments in associates (Continued)**

The following table illustrates the summarised financial information in respect of China Aluminum Investment Development Co., Ltd.:

	31 December 2022	31 December 2021
Cash and cash equivalents	230,401	246,253
Other current assets	1,751,345	1,737,717
Current assets	1,981,746	1,983,970
Non-current assets	3,266,027	3,310,908
Current liabilities	65,186	58,263
Non-current liabilities	—	—
Net assets	5,182,587	5,236,615
Non-controlling interests	—	—

9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES (CONTINUED)

(b) Investments in associates (Continued)

Reconciliation to the Group's interest in the associate:

	31 December 2022	31 December 2021
Proportion of the Group's ownership	24.12%	24.12%
Group's share of net assets of the associate	1,250,040	1,263,072
Carrying amount of the investment	1,250,040	1,263,072
Revenue	167,607	151,219
Gross profit	81,734	68,469
Interest income	4,210	1,739
Depreciation and amortisation	44,621	44,630
Profit before income tax	64,884	85,066
Income tax	16,774	21,986
Other comprehensive income	–	–
Total comprehensive income for the year	48,110	63,080
Dividend received	24,636	11,015

**9 INVESTMENTS IN JOINT VENTURES AND ASSOCIATES
(CONTINUED)****(b) Investments in associates (Continued)**

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

	31 December 2022	31 December 2021 (Restated)
Share of associates' profits and losses	119,028	(438,462)
Share of associates' total other comprehensive income	(5,628)	6,292
Share of associates' total comprehensive income	113,400	(432,170)
Aggregate carrying amount of the Group's investments in the associates	5,152,598	5,178,721

There were no material contingent liabilities relating to the Group's interests in the associates and the associates themselves.

10 OTHER FINANCIAL ASSETS MEASURED AT FAIR VALUE

	31 December 2022	31 December 2021 (Restated)
Listed equity investments, at fair value		
Dongxing securities Co., Ltd. (東興證券股份有限公司)	5,039	7,674
China Aluminum International Engineering Corporation Limited (中鋁國際工程股份有限公司)	29,558	37,459
Zhuhai Kingma Holding Co., Ltd. (珠海金馬控股股份有限公司)	154	–
	34,751	45,133
Unlisted equity investments, at fair value		
Sanmenxia Dachang Mining Co., Ltd. (三門峽達昌礦業有限公司)	19,336	20,921
Inner Mongolia Ganqimaodu Port Development Co., Ltd. (內蒙古甘其毛都港務發展股份有限公司)	12,078	16,669
Yinchuan Economic and Technological Development Zone Investment Holding Co., Ltd. (銀川經濟技術開發區投資控股有限公司)	20,149	20,577
Chinalco High End Manufacturing Co., Ltd. (中國鋁業集團高端製造股份有限公司) (i)	1,727,129	–
Xingxian Shengxing Highway Investment Management Co., Ltd. (興縣盛興公路投資管理有限公司)	113,850	135,079
Fangchenggang Chisha Pier Co., Ltd. (防城港赤沙碼頭有限公司)	42,700	21,700
Jinlong Copper Co., Ltd. (金隆銅業有限公司)	170,265	170,265
Others	20,827	27,342
	2,126,334	412,553
	2,161,085	457,686

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

- (i) On 27 December 2022, the Group completed its investment in 9.16% equity interests in Chinalco High-end Manufacturing at a consideration comprising certain assets and liabilities related to slab ingot production lines, 100% equity interests in Yunnan Haoxin Aluminum Foil Co., Ltd. ("Yunnan Haoxin"), a subsidiary of the Group, and cash and cash equivalents of RMB220 million (collectively the "Consideration Assets"). Upon completion, gains on disposals of production lines and a subsidiary totalling RMB65 million, representing the valuation of the 9.16% equity interest in Chinalco High-end Manufacturing in excess of the valuation of Consideration Assets, was recognised.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

11 DEFERRED TAX

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current income tax assets against current income tax liabilities and when the deferred taxes relate to the same tax authority.

The movements in deferred tax assets and liabilities during the year ended 31 December 2022 without taking into consideration the offsetting of balances within the same tax jurisdiction, are as follows:

Movements in deferred tax assets:

	Provision for impairment	Accrued expenses	Tax losses	Unrealised profit at consolidation	Others	Total
As at 31 December 2020	510,518	109,585	470,379	226,086	230,579	1,547,147
Business combination under common control	124,234	13,550	108,619	225,264	64,619	536,286
As at 1 January 2021 (restated)	634,752	123,135	578,998	451,350	295,198	2,083,433
Credit/(charged) to profit or loss	444,530	(90,856)	(244,843)	75,936	(47,187)	137,580
As at 31 December 2021 (Restated)	1,079,282	32,279	334,155	527,286	248,011	2,221,013
As at 31 December 2021	695,988	23,673	243,610	293,650	188,642	1,445,563
Business combination under common control	383,294	8,606	90,545	233,636	59,369	775,450
As at 1 January 2022 (restate)	1,079,282	32,279	334,155	527,286	248,011	2,221,013
Credit/(charged) to profit or loss	118,494	(8,612)	(141,929)	(6,955)	88,440	49,438
As at 31 December 2022	1,197,776	23,667	192,226	520,331	336,451	2,270,451

11 DEFERRED TAX (CONTINUED)

Movements in deferred tax liabilities:

	Interest capitalisation	Fair value changes of financial assets	Withholding Tax	Depreciation and amortization and others	Fair value adjustments arising from acquisition of subsidiaries	Total
As at 31 December 2020	25,840	8,900	–	37,107	1,431,152	1,502,999
Business combination under common control	–	–	–	79,384	23,695	103,079
As at 1 January 2021 (Restated)	25,840	8,900	–	116,491	1,454,847	1,606,078
Charged to other comprehensive income	–	(5,733)	–	–	–	(5,733)
Credited to profit or loss	(7,915)	(1,325)	–	23,885	(87,145)	(72,500)
As at 31 December 2021 (Restated)	17,925	1,842	–	140,376	1,367,702	1,527,845
As at 31 December 2021	17,925	1,842	–	71,967	1,346,201	1,437,935
Business combination under common control	–	–	–	68,409	21,501	89,910
As at 1 January 2022 (Restated)	17,925	1,842	–	140,376	1,367,702	1,527,845
Charged to other comprehensive income	–	(7,236)	–	–	–	(7,236)
Credited to profit or loss	(2,093)	6,375	204,786	38,338	(103,772)	143,634
As at 31 December 2022	15,832	981	204,786	178,714	1,263,930	1,664,243

For presentation purposes, RMB212 million (2021: RMB125 million (restated)) of deferred tax assets and liabilities have been offset in the consolidated statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

	31 December 2022	31 December 2021 (Restated)
Net deferred tax assets	2,057,900	2,096,459
Net deferred tax liabilities	1,451,692	1,403,291

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

11 DEFERRED TAX (CONTINUED)

As at 31 December 2022, accumulated tax losses and deductible temporary differences not recognised for deferred tax assets are as follows:

	31 December 2022	31 December 2021 (Restated)
Deductible temporary differences	16,298,974	12,764,306
Accumulated tax losses	7,674,394	7,192,320
	23,973,368	19,956,626

As at 31 December 2022, the expiry profile of these tax losses not recognised for deferred tax assets is analysed as follows:

	31 December 2022	31 December 2021 (Restated)
Expiring in		
2022	–	765,163
2023	447,159	556,052
2024	1,199,709	1,397,436
2025	2,133,390	2,146,025
2026	1,160,961	1,440,774
2027 and beyond	2,733,175	886,870
	7,674,394	7,192,320

12 OTHER NON-CURRENT ASSETS

	31 December 2022	31 December 2021 (Restated)
Financial assets		
– Long-term receivables (i)	513,281	504,307
Less: impairment (ii)	(443,088)	(15,542)
	70,193	488,765
Prepayment for mining rights	873,277	806,534
Long-term prepaid expenses	838,568	653,241
Deferred losses for sale and leaseback transactions	77,449	97,070
Input VAT to be deducted	241,757	305,150
Others	330,256	481,901
	2,361,307	2,343,896
	2,431,500	2,832,661

(i) As at 31 December 2022 and 31 December 2021, long-term receivables were denominated in RMB and non-interest bearing.

(ii) During the year ended 31 December 2022, an impairment loss of RMB384 million was recognised for a long term lease receivable from a third party lessee due to its default on the lease contract of an alumina production line of the Group.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

13 INVENTORIES

	31 December 2022	31 December 2021 (Restated)
Raw materials	7,322,376	6,568,752
Work-in-progress	11,660,396	10,512,450
Finished goods	6,177,766	4,639,875
Spare parts	622,541	645,564
Packaging materials and others	162,874	26,351
	25,945,953	22,392,992
Less: provision for impairment of inventories	(1,233,631)	(750,338)
	24,712,322	21,642,654

Movements in the provision for impairment of inventories are as follows:

	31 December 2022	31 December 2021 (Restated)
As at 1 January	750,338	616,680
Provision for impairment of inventories (Note)	943,732	485,088
Disposal of a subsidiary	(5,452)	–
Reversal arising from increase in net realisable value	(4,766)	(14,624)
Written off upon sales of inventories	(450,221)	(336,806)
As at 31 December	1,233,631	750,338

As at 31 December 2022 and 31 December 2021, the Group had no pledged inventories for bank and other borrowings.

Note

During the year, the Group changed its overall alumina production plan, which reduced the alumina production level of certain subsidiaries considering overall layout of alumina capacity, cost efficiency of production and the supply of bauxite in different regions. Accordingly, a certain amount of bauxite originally intended for the production of alumina now becomes excessive. The Group has decided to dispose of this excessive bauxite directly.

Given the change in the intended use of the bauxite inventories, the Group has re-assessed the provision of this excessive bauxite based on the direct selling price of bauxite ores. As a result, an inventory impairment loss of RMB535 million was recognised.

14 TRADE RECEIVABLES AND NOTES RECEIVABLE

	31 December 2022	31 December 2021 (Restated)
Trade receivables	5,055,178	4,043,972
Less: impairment	(948,782)	(1,012,722)
	4,106,396	3,031,250
Notes receivable:		
Measured at amortised cost	411,145	1,207,602
Measured at fair value through other comprehensive income	1,356,480	2,867,877
	5,874,021	7,106,729

As at 31 December 2022, all balances of trade and notes receivables were denominated in RMB, other than an amount of RMB981 million which was denominated in USD (31 December 2021 (restated): RMB520 million in USD).

As at 31 December 2022, the Group pledged certain trade and notes receivable amounting to RMB289 million (31 December 2021: RMB1,983 million) for certain secured borrowings as set out in Note 26.

**14 TRADE RECEIVABLES AND NOTES RECEIVABLE
(CONTINUED)**

Trade receivables and notes receivable are non-interest-bearing and generally with credit terms of 3 to 12 months. Certain of the Group's sales were on advance payments or documents against payment. In some cases, these terms are extended for qualifying long term customers that have met specific credit requirements. As at 31 December 2022, the ageing analysis of trade receivables based on invoice date was as follows:

	For the year ended 31 December	
	2022	2021 (Restated)
Within 1 year	2,780,524	2,332,703
Between 1 and 2 years	860,619	153,410
Between 2 and 3 years	112,902	237,916
Over 3 years	1,301,133	1,319,943
	5,055,178	4,043,972
Less: loss allowance for impairment	(948,782)	(1,012,722)
	4,106,396	3,031,250

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type and rating, and coverage by letters of credit or other forms of credit insurance). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. The Group also assesses impairment loss individually if there is evidence of significant increases in credit risk at an individual level.

14 TRADE RECEIVABLES AND NOTES RECEIVABLE (CONTINUED)

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

	As at 31 December 2022		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
Alumina and primary aluminum			
Within 1 year	998,902	5,636	0.56
Between 1 and 2 years	4,796	59	1.23
Between 2 and 3 years	12,116	50	0.41
Over 3 years	43,500	37,810	86.92
	1,059,314	43,555	
Trading			
Within 1 year	631,722	9,977	1.58
Between 1 and 2 years	358	42	11.73
Between 2 and 3 years	—	—	—
Over 3 years	2,918	1,526	52.30
	634,998	11,545	
Energy			
Within 1 year	1,117,078	1,752	0.16
Between 1 and 2 years	854,495	3,028	0.35
Between 2 and 3 years	100,772	645	0.64
Over 3 years	149,890	32,807	21.89
	2,222,235	38,232	

**14 TRADE RECEIVABLES AND NOTES RECEIVABLE
(CONTINUED)**

	As at 31 December 2022		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
Corporate and other operating segments			
Within 1 year	32,817	489	1.49
Between 1 and 2 years	869	188	21.63
Between 2 and 3 years	—	—	—
Over 3 years	19,727	19,252	97.59
	53,413	19,929	
	3,969,960	113,261	
Individually assessed trade receivables	1,085,218	835,521	
	5,055,178	948,782	

14 TRADE RECEIVABLES AND NOTES RECEIVABLE (CONTINUED)

Set out below is the information about individually assessed trade receivables:

	As at 31 December 2022		
	Gross carrying amount	Expected credit losses	Expected credit losses loss rate (%)
Zhuhai Hongfan nonferrous metal Chemical Co., Ltd	270,419	270,419	100.00
Chalco Henan Aluminum Fabrication Co., Ltd.	247,163	–	–
Xinjiang Jiarun Resources Holdings Co., Ltd.	213,293	213,293	100.00
Guizhou Jinpingguo Aluminum Rod Co., Ltd.	111,138	111,138	100.00
Others	243,205	240,671	98.96
	1,085,218	835,521	

The Group has no individual provision for impairment of notes receivables. The Group measures provision for loss on the basis of expected credit losses. The Group considers that notes receivables are not exposed to significant credit risk and has limited default risk.

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

	31 December 2022	31 December 2021 (Restated)
As at 1 January	1,012,722	988,802
Impairment loss	34,807	364,618
Write off	(17,021)	(285,178)
Reversal	(38,481)	(38,465)
Others	(43,245)	(17,055)
As at 31 December	948,782	1,012,722

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

15 OTHER CURRENT ASSETS

	31 December 2022	31 December 2021 (Restated)
Financial assets		
– Deposits paid to suppliers	525,666	1,315,545
– Dividends receivable	360,342	373,252
– Entrusted loans and loans receivable from third parties	1,417,284	1,466,236
– Entrusted loans and loans receivable from related parties	1,278,093	1,348,016
– Recoverable reimbursement for freight charges	285,428	351,976
– Other financial assets	1,040,632	710,518
	4,907,445	5,565,543
Less: impairment allowance	(3,194,988)	(3,207,132)
	1,712,457	2,358,411
Deductible input value added tax receivables	577,041	778,251
Prepaid income tax	142,056	62,139
Prepayments to related parties for purchases	127,748	154,644
Prepayments to suppliers for purchases and others	2,052,125	846,272
Others	78,270	75,952
	2,977,240	1,917,258
Less: impairment allowance	–	–
	2,977,240	1,917,258
Total other current assets	4,689,697	4,275,669

15 OTHER CURRENT ASSETS (CONTINUED)

As at 31 December 2022, all balances of other current assets were denominated in RMB, other than an amount of RMB151 million which was denominated in USD (31 December 2021: RMB99 million in USD).

As at 31 December 2022 and 2021, except for entrusted loans and loans receivable which were interest-bearing, all amounts in other current assets were non-interest-bearing.

As at 31 December 2022, the ageing analysis of financial assets included in other current assets was as follows:

	31 December 2022	31 December 2021 (Restated)
Within 1 year	1,355,199	1,888,964
Between 1 and 2 years	181,198	190,999
Between 2 and 3 years	89,680	51,675
Over 3 years	3,281,368	3,433,905
	4,907,445	5,565,543
Less: provision for impairment	(3,194,988)	(3,207,132)
	1,712,456	2,358,411

15 OTHER CURRENT ASSETS (CONTINUED)

Movements in the provision for impairment of in other current assets are as follows:

	2022	2021 (Restated)
At beginning of year	3,207,132	2,273,183
Impairment loss	96,725	1,053,773
Write off	(3,020)	(135,049)
Reversal	(105,023)	(4,877)
Others	(826)	20,102
As at 31 December	3,194,988	3,207,132

Financial assets included in other current assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs.

As at 31 December 2022	Gross carrying amount	Expected credit losses
Stage 1 – 12 months expected credit loss	1,403,623	4,743
Stage 2 – life time expected credit loss	103,277	19,853
Stage 3 – life time expected credit loss with credit-impaired	3,400,545	3,170,392
	4,907,445	3,194,988

15 OTHER CURRENT ASSETS (CONTINUED)

31 December 2021 (Restated)	Gross carrying amount	Expected credit losses
Stage 1 – 12 months expected credit loss	2,007,620	6,503
Stage 2 – life time expected credit loss	207,409	9,598
Stage 3 – life time expected credit loss with credit- impaired	3,350,514	3,191,031
	5,565,543	3,207,132

16 CASH AND CASH EQUIVALENTS AND RESTRICTED CASH

	31 December 2022	31 December 2021 (Restated)
Restricted cash	2,443,249	1,400,988
Cash and cash equivalents	16,816,684	19,683,619
	19,259,933	21,084,607

16 CASH AND CASH EQUIVALENTS AND RESTRICTED CASH (CONTINUED)

Restricted cash mainly represented deposits held for use in issuing notes payable and letters of credit.

As at 31 December 2022, cash and cash equivalent and restricted cash of the Group were denominated in the following currencies:

	31 December 2022	31 December 2021 (Restated)
RMB	17,843,469	19,498,843
USD	1,378,559	1,566,024
HKD	12,517	11,562
EUR	1,989	1,957
Others	23,399	6,221
	19,259,933	21,084,607

Cash at banks earns interest at floating rates based on daily bank deposit rates. The bank balances, time deposits and restricted cash are deposited with creditworthy banks with no recent history of default.

17 SHARE CAPITAL

	31 December 2022	31 December 2021
Listed A shares	13,217,626	13,078,707
Listed H shares	3,943,966	3,943,966
	17,161,592	17,022,673

As at 31 December 2022 and 31 December 2021, all issued shares were registered and fully paid. Both A shares and H shares rank pari passu in all aspects.

The number of the Company's authorised and issued ordinary shares was 17,161,591,551 at par value of RMB1.00 per share as at 31 December 2022, including 138,918,600 restricted share (Note 18).

18 RESTRICTED SHARES HELD FOR EMPLOYEE SHARE SCHEME

	31 December 2022 Shares (thousands)	31 December 2021 Shares (thousands)	31 December 2022 RMB	31 December 2021 RMB
Restricted shares held for employee share scheme	(138,919)	–	(404,685)	–

These shares are held for the 2021 Restricted A Share Incentive Scheme (the “Incentive Scheme”).

The establishment of the Incentive Scheme was approved by the shareholders at the 2022 first extraordinary general meeting on 26 April 2022. The Incentive Scheme is designed to provide long-term incentives to middle level managers and above (including Executive Directors) in order to improve the long-term shareholder returns. Under the scheme, participants are granted 112,270 thousands Restricted A Shares with a grant price of RMB3.08 per share on 25 May 2022, and 26,649 thousands Restricted A Shares with a grant price of RMB2.21 per share on 24 November 2022. All these shares are restricted for sale until certain service and performance conditions are met. The fair value of these restricted shares at the grant date was valued based on RMB4.97 per share on 25 May 2022, and RMB4.42 per share on 24 November 2022, respectively.

	Number of shares (thousands)	Repurchase obligation
As at 31 December 2021	–	–
Grant of restricted shares under the Incentive Scheme	(138,919)	(404,685)
As at 31 December 2022	(138,919)	(404,685)

Expenses arising from share-based payment transactions

	For the year ended 31 December 2022	2021
Shares issued under employee share scheme	48,258	–

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

19 OTHER EQUITY INSTRUMENTS

Outstanding perpetual medium-term notes	31 December 2021 RMB	Issue	Redemption	31 December 2022 RMB
2019 Second Medium-term Notes	1,498,429	–	1,498,429	–
2020 Second Medium-term Notes	1,000,000	–	1,000,000	–
2022 Third Medium-term Notes (i)	–	1,000,000	–	1,000,000
2022 Fourth Medium-term Notes (ii)	–	1,000,000	–	1,000,000
	2,498,429	2,000,000	2,498,429	2,000,000

(i) On 17 August 2022, the Company issued RMB1,000 million perpetual medium-term notes with an initial distribution rate at 2.87% (the “2022 Third Medium-term Notes”). The proceeds from the issuance of the 2022 Third Medium-term Notes were RMB1,000 million. The proceeds were used for the repayment of interest-bearing loans and borrowings. Coupon payments of 2.87% per annum on the 2022 Third Medium-term Notes have been made annually in arrears from 17 August 2022 and may be deferred at the discretion of the Company. The 2022 Third Medium-term Notes have no fixed maturity date and are callable only at the Group’s option on 19 August 2025 or any coupon distribution date after 19 August 2025 at their principal amounts together with any accrued, unpaid or deferred coupon distribution payments. The coupon distribution rate will be reset to a percentage per annum equal to the sum of (a) the initial spread of 0.57 percent, (b) the China Treasury Rate, and (c) a margin of maximum 300 basic points every three years since 19 August 2025. While any coupon distribution payments are unpaid or deferred, the Company cannot declare or pay dividends to shareholders or decrease the share capital, or make material fixed asset investments. As at 31 December 2022, no coupon distribution payments are unpaid or deferred.

(ii) On 20 September 2022, the Company issued RMB1,000 million perpetual medium-term notes with an initial distribution rate at 2.68% (the “2022 Fourth Medium-term Notes”). The proceeds from the issuance of the 2022 Fourth Medium-term Notes were RMB1,000 million. The proceeds were used for the repayment of interest-bearing loans and borrowings. Coupon payments of 2.68% per annum on the 2022 Fourth Medium-term Notes have been made annually in arrears from 20 September 2022 and may be deferred at the discretion of the Company. The 2022 Fourth Medium-term Notes have no fixed maturity date and are callable only at the Group’s option on 22 September 2024 or any coupon distribution date after 22 September 2024 at their principal amounts together with any accrued, unpaid or deferred coupon distribution payments. The coupon distribution rate will be reset to a percentage per annum equal to the sum of (a) the initial spread of 0.59 percent, (b) the China Treasury Rate, and (c) a margin of maximum 300 basic points every two years since 22 September 2024. While any coupon distribution payments are unpaid or deferred, the Company cannot declare or pay dividends to shareholders or decrease the share capital, or make material fixed asset investments. As at 31 December 2022, no coupon distribution payments are unpaid or deferred.

Pursuant to the terms and conditions of the 2022 Third Medium-term Notes and the 2022 Fourth Medium-term Notes, the Group has no contractual obligations to repay their principal or to pay any coupon distributions. Thus in the opinion of the directors of the Company, they do not meet the definition of financial liabilities according to IAS 32 Financial Instruments: Presentation, and are classified as equity and subsequent distributions declared will be treated as distributions to equity owners.

20 RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity of the Group.

21 INTEREST-BEARING LOANS AND BORROWINGS

	31 December 2022	31 December 2021 (Restated)
Long-term loans and borrowings		
Lease liabilities (Note 22(b))	10,099,506	11,493,471
Medium-term notes and bonds (Note (b))		
– Guaranteed (Note (e))	6,939,665	6,343,589
– Unsecured	12,782,976	12,878,997
Long-term bank and other loans (Note (a))		
– Secured (Note (f))	7,173,497	11,305,535
– Guaranteed (Note (e))	2,008,337	4,347,079
– Unsecured	38,367,723	33,594,042
	47,549,557	49,246,656
Total long-term loans and borrowings	77,371,704	79,962,713
Current portion of lease liabilities	(890,033)	(974,941)
Current portion of medium-term notes and bonds	(4,398,561)	(2,999,599)
Current portion of long-term bank and other loans	(13,486,345)	(6,313,238)
	(18,774,939)	(10,287,778)
Non-current portion of long-term loans and borrowings	58,596,765	69,674,935

**21 INTEREST-BEARING LOANS AND BORROWINGS
(CONTINUED)**

	31 December 2022	31 December 2021 (Restated)
Short-term loans and borrowings		
Bank and other loans <i>(Note (c))</i>		
– Secured <i>(Note (f))</i>	368,995	513,100
– Unsecured	6,092,108	11,424,078
	6,461,103	11,937,178
Short-term bonds, unsecured <i>(Note (d))</i>	2,623,311	5,440,414
Current portion of lease liabilities	890,033	974,941
Current portion of medium-term notes and bonds	4,398,561	2,999,599
Current portion of long-term bank and other loans	13,486,345	6,313,238
	21,398,250	15,728,192
Total short-term borrowings and current portion of long-term loans and borrowings	27,859,353	27,665,370

21 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

As at 31 December 2022, except for loans and borrowings of the Group amounting to RMB8 million (31 December 2021: RMB11 million) and RMB737 million (31 December 2021: RMB1,333 million) which were denominated in JPY and USD, respectively, all loans and borrowings were denominated in RMB.

As at 31 December 2022, included in the Group's interest-bearing loans and borrowings are amounts due to fellow subsidiaries RMB12,474 million (31 December 2021: RMB13,180 million), as set out in Note 38(b). As at 31 December 2022, the amount of interest-bearing loans and borrowings obtained from a joint venture and an associate are RMB117 million (31 December 2021: RMB0 million).

As at 31 December 2022, Shandong Huayu Alloy Materials Co. Ltd. ("Shandong Huayu"), a subsidiary of the Company did not repay the short-term secured bank loans according to the terms of the agreement with principal amount of RMB106 million (31 December 2021: RMB113 million), which resulted in an event of default, which was already included under current liabilities. There is no further impact extended to the Group as no guarantees was provided by any entity within the Group to Shandong Huayu and there was no cross default provisions for other debts of the Group triggered by this default.

(a) Long-term bank and other loans

The maturity of long-term bank and other loans is set out below:

	Loans from banks and other financial institutions		Other loans		Total	
	31 December 2022	31 December 2021	31 December 2022	31 December 2021	31 December 2022	31 December 2021
Within 1 year	13,484,315	6,162,067	2,030	151,171	13,486,345	6,313,238
Between 1 and 2 years	6,602,850	17,422,804	2,030	2,445	6,604,880	17,425,249
Between 2 and 5 years	20,575,761	10,780,742	4,060	6,445	20,579,821	10,787,187
Over 5 years	6,878,511	14,720,982	-	-	6,878,511	14,720,982
	47,541,437	49,086,595	8,120	160,061	47,549,557	49,246,656

The weighted average annual interest rate of long-term bank and other loans for the year ended 31 December 2022 was 4.10% (2021: 4.55%).

**21 INTEREST-BEARING LOANS AND BORROWINGS
(CONTINUED)****(b) Medium-term notes and bonds**

Outstanding medium-term bonds and private placement notes of the Group as at 31 December 2022 are summarised as follows:

	Face value/maturity	Effective interest rate	31 December 2022	31 December 2021
2018 Medium-term bonds	RMB900,000/2023	5.06%	899,865	899,323
2018 Medium-term bonds	RMB1,600,000/2023	4.57%	1,598,947	1,597,988
2019 Medium-term notes	RMB2,000,000/2024	4.31%	1,993,080	1,989,090
2019 Medium-term bonds	RMB2,000,000/2022	3.84%	–	1,999,809
2019 Medium-term bonds	RMB2,000,000/2029	4.57%	1,997,623	1,997,440
2019 Medium-term bonds	RMB1,000,000/2022	3.52%	–	999,790
2020 Medium-term bonds	RMB1,000,000/2023	3.07%	999,962	999,787
2020 Medium-term notes	RMB900,000/2023	3.04%	899,787	898,866
2020 Medium-term bonds	RMB500,000/2025	3.31%	499,900	499,876
2021 Medium-term notes	RMB1,000,000/2024	3.21%	997,969	997,028
2022 Medium-term notes	RMB2,000,000/2025	3.08%	1,996,665	–
2022 Medium-term notes	RMB400,000/2025	2.73%	399,557	–
2022 Medium-term notes	RMB500,000/2024	2.50%	499,621	–
2021 Hong Kong Medium-term bonds	USD500,000/2024	1.74%	3,472,428	3,173,180
2021 Hong Kong Medium-term bonds	USD500,000/2026	2.24%	3,467,237	3,170,409
			19,722,641	19,222,586

Medium-term notes and bonds were issued for capital expenditures and operating cash flows purposes, as well as for the purpose of re-financing of bank loans.

21 INTEREST-BEARING LOANS AND BORROWINGS (CONTINUED)

(c) Short-term bank and other loans

The weighted average annual interest rate of short-term bank and other loans for the year ended 31 December 2022 was 2.76% (2021: 3.03%).

(d) Short-term bonds

Outstanding short-term bonds as at 31 December 2022 are summarised as follows:

	Face value/maturity	Effective interest rate	31 December 2022	31 December 2021
Short-term bonds	RMB400,000/2021	2.70%	–	406,036
Short-term bonds	RMB2,000,000/2021	2.59%	–	2,022,571
Short-term bonds	RMB1,000,000/2021	2.55%	–	1,006,240
Short-term bonds	RMB2,000,000/2021	2.80%	–	2,005,567
Short-term bonds	RMB2,000,000/2022	2.58%	–	–
Short-term bonds	RMB1,000,000/2022	2.30%	–	–
Short-term bonds	RMB600,000/2022	2.05%	608,105	–
Short-term bonds	RMB1,000,000/2022	1.93%	1,009,288	–
Short-term bonds	RMB1,000,000/2022	1.59%	1,005,918	–
			2,623,311	5,440,414

All the above short-term bonds were issued for working capital needs.

**21 INTEREST-BEARING LOANS AND BORROWINGS
(CONTINUED)****(e) Guaranteed interest-bearing loans and borrowings**

Details of guarantors for the Group's interest-bearing loans and borrowings are set out as follows:

Guarantors	31 December 2022	31 December 2021 (Restated)
Long-term loans		
The Company	7,443,377	7,397,333
Baotou Aluminum Limited Company (包頭鋁業有限公司) and Baotou Communications Investment Group Limited Company (包頭交通投資集團有限公司) (Note (i))	412,500	825,000
The Company and COSCO SHIPPING BULK Limited company (中遠海運散貨運輸有限公司) (Note (iii))	327,125	318,785
Ningxia Energy (Note (ii))	765,000	935,000
Yunnan Aluminum (Note (ii))	–	1,214,550
	8,948,002	10,690,668

Notes:

- (i) The guarantors include a subsidiary of the Company and a third party.
- (ii) The guarantors are subsidiaries of the Company.
- (iii) The joint guarantors include the Company and a third party.

(f) Secured interest-bearing loans and borrowings, the assets pledged for bank and other borrowings were set out in Note 26.

22 LEASE

The Group as a lessee

The Group has lease contracts for various items of land use rights, plant and machinery, motor vehicles and other equipment used in its operations.

(a) Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during 2022 and 2021 are as follows:

	Buildings	Machinery	Land use rights	Total
As at 1 January 2022 (Restated)	359,104	385,186	18,297,719	19,042,009
Additions	56,117	22,393	601,649	680,159
Transfer from investment properties (Note 8)	–	–	5,997	5,997
Lease modification (Note 7)	–	(3,816)	(977,923)	(981,739)
Transfer to property, plant and equipment	–	(64,939)	–	(64,939)
Transfer to investment properties (Note 8)	–	–	(46,981)	(46,981)
Disposal	–	–	(78,446)	(78,446)
Depreciation	(82,820)	(62,167)	(1,137,375)	(1,282,362)
Currency translation differences	(56)	–	–	(56)
As at 31 December 2022	332,345	276,657	16,664,640	17,273,642

22 LEASE (CONTINUED)

The Group as a lessee (Continued)

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

	Buildings	Machinery	Land use rights	Total
As at 1 January 2021 (Restated)	240,402	1,772,007	13,484,314	15,496,723
Additions	8,546	11,228	117,471	137,245
Transfer from property, plant and equipment (<i>Note 7</i>)	–	–	68,377	68,377
Lease modification (<i>i</i>)	377,873	–	5,300,918	5,678,791
Transfer to property, plant and equipment	(143,646)	(1,199,382)	–	(1,343,028)
Transfer to investment properties (<i>Note 8</i>)	–	–	(90,314)	(90,314)
Disposal	–	–	(32,173)	(32,173)
Depreciation	(124,048)	(130,923)	(516,980)	(771,951)
Impairment losses	–	(67,744)	(37,561)	(105,305)
Currency translation differences	(23)	–	3,667	3,644
As at 31 December 2021 (Restated)	359,104	385,186	18,297,719	19,042,009

(i) Pursuant to the framework lease contract entered into between the Company and Chinalco in 2001, the annual consideration for certain lands leased by the Group from Chinalco for the period commencing 1 January 2022 was re-negotiated between contract parties, which constitute lease modifications as at 31 December 2021 and results in remeasurement of the lease liabilities and a corresponding adjustment to the right-of-use assets.

As at 31 December 2022, the Group has pledged land use rights at a net carrying value amounting to RMB241 million (2021: RMB234 million) for bank and other borrowings as set out in Note 26.

22 LEASE (CONTINUED)

The Group as a lessee (Continued)

(b) Lease liabilities

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

	Year ended 31 December 2022
Carrying amount at 1 January (Restated)	11,493,471
New leases	477,299
Lease modification	(951,047)
Accretion of interest recognised during the year	678,855
Payments	(1,599,072)
Carrying amount at 31 December	10,099,506
Analysed into:	
Current portion	890,033
Non-current portion	9,209,473

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

	Year ended 31 December 2022
Interests on lease liabilities	678,855
Depreciation charge of right-of-use assets	1,282,362
Expenses relating to short-term leases	25,269
Expenses relating to leases of low-value assets	3,698
Total amount recognised in profit or loss	1,990,184

22 LEASE (CONTINUED)

The Group as a lessee (Continued)

(d) The total cash outflow for leases is disclosed in Notes 37(c).

The Group as a lessor

Rental income recognised by the Group during the year was RMB317 million (2021: RMB312 million), details of which are included in Note 5. In the opinions of the directors, the undiscounted lease payments receivable by the Group in future periods under non-cancellable operating leases are not material.

23 OTHER NON-CURRENT LIABILITIES

	31 December 2022	31 December 2021 (Restated)
Financial liabilities		
– Long-term payables for mining rights	623,085	798,204
– Other financial liabilities	37,782	82,660
	660,867	880,864
Obligations in relation to early retirement schemes (<i>Note (i)</i>)	138,464	249,476
Deferred government grants	181,693	206,476
Deferred gain relating to sales and leaseback agreements	42,417	50,631
Contract liabilities	93,240	116,545
Provision for rehabilitation	830,154	506,006
Others	229,949	161,429
	1,515,917	1,290,563
	2,176,784	2,171,427

23 OTHER NON-CURRENT LIABILITIES (CONTINUED)

Note:

- (i) Obligations in relation to early retirement schemes

Since 2014, certain subsidiaries and branches implemented termination retirement benefit schemes which allow qualified employees to early retire on a voluntary basis. The Group undertakes the obligations to pay the termination retirement employees' living allowance for a period of no more than five years in the future on a monthly basis according to the termination retirement benefit schemes, in addition to the social insurance and housing fund pursuant to the regulation of the local Social Security Bureau. Living allowance, social insurance and the housing fund are together referred to as the "Payments". The Payments are forecasted to increase by 3% per annum with reference to the inflation rate and adjusted based on the average death rate in China. The Payments are discounted at the treasury bond rate as at 31 December 2022. As at 31 December 2022, the current portion is included in "Other payables and accrued liabilities".

As at 31 December 2022, obligations in relation to retirement benefits under the Group's early retirement schemes are as follows:

	31 December 2022	31 December 2021 (Restated)
As at 1 January	502,155	572,358
Provision made during the year (Note 32)	46,919	269,895
Interest costs	5,283	4,782
Payment during the year	(283,237)	(344,880)
As at 31 December	271,120	502,155
Non-current	138,464	249,476
Current (Note 24)	132,656	252,679
	271,120	502,155

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

24 OTHER PAYABLES AND ACCRUED LIABILITIES

	31 December 2022	31 December 2021 (Restated)
Financial liabilities		
– Payable for capital expenditures	2,507,415	4,999,157
– Interests payable	360,093	494,085
– Deposits	1,856,949	1,760,156
– Dividends payable by subsidiaries to non-controlling shareholders	435,544	447,848
– Consideration payable for investment projects	73,237	38,374
– Current portion of payables for mining rights (Note 23)	176,971	182,959
– Payable of government levies on self-operated power plants	105,287	411,021
– Restricted shares repurchase obligation	404,685	–
– Others	1,424,584	1,283,125
	7,344,765	9,616,725
Taxes other than income taxes payable (i)	1,239,287	1,781,725
Accrued payroll and bonus	197,591	249,581
Staff welfare payables	415,986	354,942
Current portion of obligations in relation to early retirement schemes (Note 23)	132,656	252,679
Contributions payable for pension costs	41,118	37,509
Others	149,836	89,578
	2,176,474	2,766,014
	9,521,239	12,382,739

(i) Taxes other than income taxes payable mainly comprise accruals for value-added tax, resources tax, city construction tax and education surcharge.

25 TRADE AND NOTES PAYABLES

	31 December 2022	31 December 2021 (Restated)
Trade payables	15,440,190	13,909,245
Notes payable	7,096,141	4,679,171
	22,536,331	18,588,416

As at 31 December 2022, all balances of trade and notes payables were denominated in RMB, other than an amount of RMB261 million which was nominated in USD (31 December 2021: RMB241 million in USD).

The ageing analysis of trade and notes payables is as follows:

	31 December 2022	31 December 2021 (Restated)
Within 1 year	21,523,421	17,012,772
Between 1 and 2 years	511,560	946,337
Between 2 and 3 years	157,729	236,106
Over 3 years	343,621	393,201
	22,536,331	18,588,416

The trade and notes payables are non-interest-bearing and are normally settled within one year or normal business cycle.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

26 PLEDGE OF ASSETS

The Group has pledged various assets as collateral against certain secured borrowings as set out in Note 21. As at 31 December 2022, a summary of these pledged assets was as follows:

	31 December 2022	31 December 2021 (Restated)
Carrying value of assets pledged:		
Property, plant and equipment (Note 7)	4,967,190	5,680,508
Right-of-use assets (Note 22(a))	241,287	234,369
Intangible assets (Note 6)	1,352,618	1,399,972
Trade and notes receivables (Note 14)	289,110	1,982,986
	6,850,205	9,297,835

As at 31 December 2022, in addition to the loans and borrowings which were secured by the above assets, the current portion of long-term loans and borrowings amounting to RMB1,402 million (31 December 2021: RMB1,525 million), and the non-current portion of long-term loans and borrowings amounting to RMB6,390 million (31 December 2021: RMB7,959 million) were secured against the contractual rights of receiving electricity fees from its customers in the future.

27 EXPENSE BY NATURE

	For the year ended 31 December	
	2022	2021 (Restated)
Purchases of inventories in relation to trading activities	128,285,396	138,350,569
Raw materials and consumables used, and changes in work-in-progress and finished goods	58,119,628	62,159,977
Power and utilities	43,449,772	35,419,204
Depreciation of right-of-use assets	1,282,362	771,951
Depreciation and amortisation (other than depreciation of right-of-use assets) expenses	9,691,457	9,789,163
Employee benefits expenses (<i>Note 32</i>)	11,451,648	11,008,847
Repairs and maintenance	3,257,456	3,796,066
Transportation expenses	9,545,420	7,227,249
Taxes other than income tax expense (<i>Note (i)</i>)	2,860,228	2,595,082
Inventory impairment loss	938,966	470,464
Auditors' remunerations		
– PricewaterhouseCoopers and PricewaterhouseCoopers Zhong Tian LLP		
– Audit services	18,170	18,170
– Non-audit services	3,340	870
Others	2,032,531	1,687,303
	270,936,374	273,294,915

(i) Taxes other than income tax expense mainly comprise surcharges, land use tax, property tax and stamp duty.

28 NET IMPAIRMENT LOSSES ON FINANCIAL ASSETS

	For the year ended 31 December	
	2022	2021 (Restated)
Impairment losses on other non-current assets (Note 12)	426,111	15,716
(Reversal of)/Impairment losses on trade and notes receivables (Note 14)	(3,674)	326,153
(Reversal of)/Impairment losses on other current assets (Note 15)	(8,298)	1,048,896
	414,139	1,390,765

29 OTHER INCOME

For the year ended 31 December 2022, government grants amounting to RMB236 million (2021: RMB173 million) were recognised as income to facilitate the Group's development. There are no unfulfilled conditions or contingencies attached to the grants.

30 OTHER GAINS/(LOSSES)-NET

	For the year ended 31 December	
	2022	2021 (Restated)
Gains/(losses) on disposal of subsidiaries (i)	86,343	(27,404)
Realised and unrealised gains/(losses) on futures, forward and option contracts, net (ii)	295,882	(604,734)
Gains/(losses) on disposal of property, plant and equipment, intangible assets and right-of-use assets, net	323,659	(679,397)
Others	(390,525)	(329,480)
	315,359	(1,641,015)

(i) During the year ended 31 December 2022, the Group disposed of certain subsidiaries with gains totaling RMB 86 million, which included a gain of disposal of Yunnan Haoxin of RMB 37 million (Note 10).

(ii) The Group did not apply hedge accounting for these futures, forward and option contracts.

31 FINANCE INCOME/FINANCE COSTS

An analysis of finance income/finance costs is as follows:

	For the year ended 31 December	
	2022	2021 (Restated)
Finance income-interest income	477,137	311,103
Interest expenses	(3,832,874)	(4,512,188)
Less: Interest expenses capitalised in property, plant and equipment (Note 7)	5,140	1,727
Interest expenses, net of capitalised interest	(3,827,734)	(4,510,461)
Exchange losses, net	(67,133)	(22,205)
Finance costs	(3,894,867)	(4,532,666)
Finance costs, net	(3,417,730)	(4,221,563)
Capitalisation rate during the year (Note 7)	3.55%	4.00%

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

32 EMPLOYEE BENEFIT EXPENSE

An analysis of employee benefit expenses is as follows:

	For the year ended 31 December	
	2022	2021 (Restated)
Salaries and bonuses	7,601,169	6,929,589
Housing fund	718,428	707,809
Staff welfare and other expenses (i)	3,002,984	3,049,839
Shares issued under employee share scheme (Note(18))	48,258	–
Employment expenses in relation to early retirement schemes (Note 23)	46,919	269,895
Employment expenses in relation to termination benefits	33,890	51,715
	11,451,648	11,008,847

- (i) Staff welfare and other expenses represent staff welfare, staff union expenses, staff education expenses and unemployment insurance expenses etc.

Employee benefit expenses include emoluments payable to directors, supervisors and remunerations to senior management as set out in Note 33.

33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS

(a) Directors' and supervisors' emoluments

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

	31 December 2022	31 December 2021
Fees	618	579
Basic salaries, other allowances and benefits in kind	4,244	4,526
Pension costs	505	449
	5,367	5,554

The emoluments of each director and supervisor of the Company for the year ended 31 December 2022 is set out below:

Names of directors and supervisors	Fees	Salaries	Discretionary bonuses	Pension costs	Total
Executive Directors:					
Liu Jianping (iii)	–	–	–	–	–
Zhu Runzhou (iii)	–	1,160	–	101	1,261
Ou Xiaowu (iii)	–	933	–	101	1,034
Jiang Tao (iii)	–	844	–	101	945
	–	2,937	–	303	3,240

**33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS
(CONTINUED)**

(a) Directors' and supervisors' emoluments (Continued)

Names of directors and supervisors	Fees	Salaries	Discretionary bonuses	Pension costs	Total
Non-Executive Directors:					
Zhang Jilong (iii)	-	-	-	-	-
Chen Pengjun (iii)	-	-	-	-	-
Wang Jun	-	-	-	-	-
Qiu Guanzhou (iii)	206	-	-	-	206
Yu Jinsong (iii)	206	-	-	-	206
Chan Yuen Sau Kelly (iii)	206	-	-	-	206
	618	-	-	-	618
Supervisors:					
Ye Guohua (iii)	-	-	-	-	-
Shan Shulan (iii)	-	-	-	-	-
Lin Ni (iii)	-	-	-	-	-
Guan Xiaoguang (i)	-	198	-	24	222
Xu Shuxiang (ii) (iii)	-	319	-	77	396
Yue Xuguang (iii)	-	790	-	101	891
	-	1,307	-	202	1,509

33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS (CONTINUED)

(a) Directors' and supervisors' emoluments (Continued)

The emoluments of each director and supervisor of the Company for the year ended 31 December 2021 is set out below:

Names of directors and supervisors	Fees	Salaries	Discretionary bonuses	Pension costs	Total
Executive Directors:					
Liu Jianping	–	–	–	–	–
Zhu Runzhou	–	1,176	–	93	1,269
Ou Xiaowu	–	973	–	93	1,066
Jiang Tao	–	837	–	77	914
	–	2,986	–	263	3,249
Non-Executive Directors:					
Ao Hong	–	–	–	–	–
Zhang Jilong	–	–	–	–	–
Wang Jun	–	–	–	–	–
Chen Lijie	95	–	–	–	95
Lie-A-Cheong Tai-Chong, David	95	–	–	–	95
Hu Shihai	95	–	–	–	95
Qiu Guanzhou	98	–	–	–	98
Chan Yuen Sau Kelly	98	–	–	–	98
Yu Jinsong	98	–	–	–	98
	579	–	–	–	579
Supervisors:					
Ye Guohua	–	–	–	–	–
Shan Shulan	–	–	–	–	–
Guan Xiaoguang	–	770	–	93	863
Yue Xuguang	–	770	–	93	863
Lin Ni	–	–	–	–	–
	–	1,540	–	186	1,726

33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS (CONTINUED)

(a) Directors' and supervisors' emoluments (Continued)

Notes:

- (i) On 18 March 2022, Mr. Guan Xiaoguang was resigned as a supervisor of the Company.
- (ii) On 18 March 2022, Ms. Xu Shuxiang was elected as a supervisor in the seventh session of the Supervisory Committee of the Company.
- (iii) On 21 June 2022, Mr. Liu Jianping, Mr. Zhu Runzhou, Mr. Ou Xiaowu and Mr. Jiang Tao were elected as Executive Directors in the eighth session of the Board of the Company. Mr. Zhang Jilong and Mr. Chen Pengjun were elected as non-executive directors in the eighth session of the Board of the Company. Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly were elected as Independent Non-Executive Directors of the eighth session of the Board of the Company.

On 21 June 2022, Ms. Xu Shuxiang and Mr. Yue Xuguang were elected as the employee representative supervisors in the eighth session of the Supervisory Committee of the Company.

On 21 June 2022, Mr. Ye Guohua, Ms. Shan Shulan and Ms. Lin Ni were elected as shareholder representative supervisors in the eighth session of the Supervisory Committee of the Company.

During the year, in addition to the emoluments disclosed above, share-based compensations with a cost of RMB112 thousand, RMB108 thousand and RMB104 thousand, were provided to Executive Director Mr. Zhu Runzhou, Mr. Ou Xiaowu, and Mr. Jiang Tao, respectively (2021: Nil).
- (iv) During the year ended 31 December 2022, 750,000 restricted shares were granted to the directors (2021: Nil), and no restricted shares were granted to the supervisors of the Company (2021: Nil).
- (v) During the year ended 31 December 2022, no emoluments were paid to the directors or the supervisors of the Company (among which included the five highest paid employees) as an inducement to join or upon joining the Company or as compensation for loss of office (2021: Nil).
- (vi) Directors of the Company, Mr. Chen Pengjun and Mr. Wang Jun (resigned) waived their emoluments as non-executive directors of the Company for 2022. The annual emoluments before tax as a non-executive director of the Company is RMB150,000 for 2022. In 2021, then director of the Company, Mr. Wang Jun (resigned) waived his emoluments as non-executive director of the Company. The annual emoluments before tax as a non-executive director of the Company was RMB150,000 for 2021.

33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS (CONTINUED)

(b) Directors' retirement benefits

During the year, no retirement benefits operated by the Group were paid or made, directly or indirectly, to or receivable by a director in respect of his services as a director or other services in connection with the management of the affairs of the Company or its subsidiaries (2021: nil).

(c) Directors' termination benefits

During the year, no payments or benefits in respect of termination of director's services were paid or made, directly or indirectly, to or receivable by a director; nor are any payable (2021: nil).

(d) Consideration provided to third parties for making available directors' services

During the year, no consideration was provided to or receivable by third parties for making available director's services (2021: nil).

(e) Information about loans, quasi-loans and other dealings in favour of directors, controlled bodies corporate by and connected entities with such directors

There are no loans, quasi-loans or other dealings in favour of directors, controlled bodies corporate by and connected entities (2021: nil).

(f) Directors' material interests in transactions, arrangements or contracts

No significant transactions, arrangements and contracts in relation to the Group's business to which the Company was a party and in which a director of the Company had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year (2021: nil).

**33 DIRECTORS' AND SUPERVISORS' EMOLUMENTS
(CONTINUED)****(g) Five highest paid individuals**

During the year ended 31 December 2022, the five highest paid employees of the Group include three directors (2021: three directors) whose emoluments are reflected in the analysis presented above. The emoluments payable to the remaining two individuals during 2022 (2021: two) is as follows:

	31 December 2022	31 December 2021
Basic salaries, housing fund, other allowances and benefits in kind	1,612	1,699
Discretionary bonuses	–	–
Pension costs	202	186
	1,814	1,885

The number of the remaining two highest paid individuals during 2022 (2021: two) whose remuneration fell within the following band is as follows:

	Number of individuals	
	31 December 2022	31 December 2021
HKD1,000,000 to HKD1,500,000	2	2

34 INCOME TAX EXPENSE

	31 December 2022	31 December 2021 (Restated)
Current income tax expense	2,271,443	3,079,631
Deferred tax expenses/(benefit)	94,196	(210,080)
	2,365,639	2,869,551

The Group's entities established and operated in mainland China are subject to PRC corporate income tax at the standard rate of 25% (2021: 25%) on their respective estimated taxable profits for the year. Certain branches and subsidiaries of the Company located in the western regions of the mainland China are granted tax concessions including a preferential tax rate of 15% (2021: 15%). The provision for Hong Kong profits tax is calculated at 16.5% (2021: 16.5%) of the estimated assessable profits for the year ended 31 December 2022.

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

34 INCOME TAX EXPENSE (CONTINUED)

Reconciliation of the applicable rates to the effective tax rates:

	31 December 2022	31 December 2021 (Restated)
Profit before income tax	13,208,968	14,186,428
Tax expense calculated at the statutory tax rate of the Company 25% (2021: 25%)	3,302,242	3,546,607
Tax effects of:		
Impact of different tax rates applied to subsidiaries	(263,643)	(80,794)
Preferential income tax rates applicable to certain branches and subsidiaries	(1,476,012)	(1,216,984)
Impact of change in income tax rate	(130,616)	45,101
Impact of temporary differences and tax losses not recognised for deferred tax assets	1,214,908	783,320
Tax incentive in relation to deduction of certain expenses	(198,130)	(186,889)
Distribution of other equity instruments deductible for tax purpose	(21,182)	(76,807)
Expenses not deductible for tax purposes	66,541	72,721
Profits and losses attributable to joint ventures and associates	(67,477)	(1,946)
Over-provision of current income tax of previous periods	(60,992)	(14,778)
Income tax expense	2,365,639	2,869,551
Effective tax rate	18%	20%

35 EARNINGS PER SHARE ATTRIBUTABLE TO OWNERS OF THE COMPANY

	For the year ended 31 December	
	2022	2021 (Restated)
Profit attributable to owners of the Company (in thousands of RMB)	4,191,927	5,759,422
Adjustment: cumulative distributions reserved of other equity instruments (in thousands of RMB)	(117,292)	(209,500)
Adjusted profit attributable to ordinary shares holders of the Company	4,074,635	5,549,922

For the purpose of calculating basic earnings per share, the Group adjusted the profit attributable to owners of the Company by deducting the after-tax amounts of cumulative distributions reserved for the year for other equity instruments, which were issued by the Group and classified as equity instrument (Note 19).

	For the year ended 31 December	
	2022	2021 (Restated)
Number of ordinary shares in issue (thousands) as at 1 January	17,022,673	17,022,673
Weighted average number of ordinary shares in issue	17,022,673	17,022,673
Basic earnings per share (RMB)	0.239	0.326

The restricted shares issued by the Group during 2022 had immaterial dilutive effect, thus the diluted earnings per share were approximately equals to the basic earnings per share.

Basic earnings per share was calculated by dividing the adjusted profit attributable to shares holders of the Company by the weighted average number of ordinary shares in issue during the year.

36 DIVIDENDS

On 21 March 2023, the Board of Directors proposed a final dividend of RMB0.0359 per share, totalling RMB618 million for the year ended 31 December 2022, which is subject to the approval of the shareholders of the Company at the forthcoming annual general meeting.

On 21 June 2022, the general meeting of shareholders approved a final dividend of RMB0.0318 per share, totalling RMB545 million for the year ended 31 December 2021, which had been paid as of 31 December 2022.

37 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

(a) Reconciliation of profit before taxation to cash generated from operations

	Notes	For the year ended 31 December	
		2022	2021 (Restated)
Cash flows generated from operating activities			
Profit before income tax		13,208,968	14,186,428
Adjustments for:			
Share of profits of joint ventures	9(a)	(178,910)	(164,100)
Share of (profits)/losses of associates	9(b)	(130,632)	423,247
Depreciation of property, plant and equipment	7	8,943,617	9,157,951
Depreciation of investment properties	8	44,777	24,450
Depreciation of right-of-use assets	22(a)	1,282,362	771,951
Amortisation of intangible assets	6	502,921	407,287
Amortisation of prepaid expenses included in other non-current assets		200,142	199,475
(Gains)/losses on disposal of other property, plant and equipment, land use rights, net	30	(323,659)	679,397
Impairment losses on property, plant and equipment	7	3,795,420	4,064,673
Impairment losses of intangible assets	6	75,842	415,659
Impairment losses of right-of-use assets	22(a)	–	105,305
Impairment losses of inventory	13	938,966	470,464

37 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(a) Reconciliation of profit before taxation to cash generated from operations (Continued)

		For the year ended 31 December	
	Notes	2022	2021 (Restated)
Impairment (reversals)/losses of trade and notes receivables	28	(3,674)	326,153
Impairment (reversals)/losses of other current assets	28	(8,298)	1,048,896
Impairment losses of other non-current assets	28	426,111	15,716
Impairment losses of investments in joint ventures and associates	9(b)	75,997	–
Realised and unrealised (gains)/losses on futures, option and forward contracts	30	(295,882)	604,734
(Gains)/losses on disposal of subsidiaries	30	(86,343)	27,404
Gains on disposal of business		(27,804)	–
Gains on disposal of investments in joint ventures and associates		–	(6,663)
Losses on accounts receivable factoring and others	30	3,808	91,283
Dividends from other financial assets measured at fair value		(11,499)	(15,296)
Finance costs		3,785,280	4,436,030
Change in special reserve		(17,684)	208,886
		32,199,826	37,479,330

37 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)**(a) Reconciliation of profit before taxation to cash generated from operations (Continued)**

<i>Notes</i>	For the year ended 31 December	
	2022	2021 (Restated)
Changes in working capital:		
(Increase)/decrease in inventories	(4,008,634)	1,324,101
Increase in trade and notes receivables	(1,328,745)	(794,608)
Decrease in other current assets	139,610	125,731
(Increase)/decrease in restricted cash	(1,042,261)	300,472
Decrease in other non-current assets	98,364	25,803
Increase/(decrease) in trade and notes payables	4,713,149	(2,189,748)
(Decrease)/increase in other payables and accrued liabilities	(137,209)	1,712,674
Decrease in other non-current liabilities	(76,287)	(62,592)
Cash generated from operations	30,557,813	37,921,163
Mainland China corporate income taxes paid	(2,812,635)	(2,764,917)
Net cash generated from operating activities	27,745,178	35,156,246
Major non-cash transactions of investing activities and financing activities		
Notes receivables endorsed for settlement of purchases of property, plant and equipment and lease liabilities	1,515,934	3,135,322
(Decrease)/increase of right-of-use assets	(439,109)	6,269,450
Investments in other financial assets measured at fair value	1,417,129	–
	2,493,954	9,404,772

37 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

(b) Reconciliation of liabilities arising from financing activities

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

	Liabilities from financing activities				Other assets		Total
	Borrowings	Medium-term notes and bonds	Leases	Other payables arising from financing activities	Sub Total	Cash/bank Overdraft	
Net debt as at 1 January 2021 (Restated)	79,448,062	21,386,635	5,629,835	913,645	107,378,177	899,955	108,278,132
Financing cash flows	(18,233,691)	3,276,882	(554,668)	(4,480,712)	(19,992,189)	-	(19,992,189)
New leases and modification of contract	-	-	6,073,418	-	6,073,418	-	6,073,418
Foreign exchange adjustments	(30,537)	(143,597)	-	-	(174,134)	-	(174,134)
Finance expenses	-	143,080	344,886	3,942,711	4,430,677	-	4,430,677
Dividends declared	-	-	-	645,286	645,286	-	645,286
Transfer between bank deposits and overdrafts	-	-	-	-	-	(899,955)	(899,955)
Net debt as at 31 December 2021 (Restated)	61,183,834	24,663,000	11,493,471	1,020,930	98,361,235	-	98,361,235
Financing cash flows	(7,396,786)	(3,051,965)	(1,599,072)	(6,238,038)	(18,285,861)	-	(18,285,861)
New leases and modification of contract	-	-	(473,748)	-	(473,748)	-	(473,748)
Foreign exchange adjustments	223,612	585,868	-	-	809,480	-	809,480
Finance expenses	-	149,049	678,855	2,948,758	3,776,662	-	3,776,662
Dividends declared	-	-	-	3,142,987	3,142,987	-	3,142,987
Transfer between bank deposits and overdrafts	-	-	-	-	-	-	-
Net debt as at 31 December 2022	54,010,660	22,345,952	10,099,506	874,637	87,330,755	-	87,330,755

37 NOTES TO THE CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)**(c) Total cash outflow for leases**

The total cash outflow for leases included in the statement of cash flows is as follows:

	For the year ended 31 December 2022
Within operating activities	65,163
Within financing activities	1,599,072
	1,664,235

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES

The Company is controlled by Chinalco, a state-owned enterprise established in Mainland China. Related parties include Chinalco and its subsidiaries (other than the Group), other government-related entities and their subsidiaries ("Other State-Owned Enterprises"), other entities and corporations over which the Company is able to control or exercise significant influence and key management personnel of the Company and Chinalco as well as their close family members.

The principal related party transactions with Chinalco and its fellow subsidiaries, associates and joint ventures of the Group which were carried out in the ordinary course of business, are as follows.

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions

		For the year ended 31 December	
	Notes	2022	2021 (Restated)
Sales of goods and services rendered:			
Sales of materials and finished goods to:			
	(i)		
Fellow subsidiaries	(ix)	20,662,740	17,435,785
Associates of Chinalco		586,988	1,428,887
Joint ventures		10,923,463	9,069,718
Associates		1,010,855	720,261
		33,184,046	28,654,651
Provision of utility services to:			
	(ii)		
Fellow subsidiaries	(ix)	1,159,032	683,050
Associates of Chinalco		19,936	14,244
Joint ventures		404,387	242,118
Associates		65,039	–
		1,648,394	939,412

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)**(a) Significant related party transactions (Continued)**

		For the year ended 31 December	
	<i>Notes</i>	2022	2021 (Restated)
Rental income on land use rights and buildings from:			
	(vi)		
Fellow subsidiaries	(ix)	27,988	29,973
Associates of Chinalco		237	237
Joint ventures		12,733	7,429
Associates		2,078	917
		43,036	38,556
Purchases of goods and services:			
Purchases of engineering, construction and supervisory services from:	(iii)		
Fellow subsidiaries	(ix)	579,187	969,568
Associates of Chinalco		2,467	192
Joint ventures		23,085	251
Associates		142,662	176,083
		747,401	1,146,094
Provision of social services and logistics services by:			
	(v)		
Fellow subsidiaries	(ix)	259,188	400,290
Associates		7	–
		259,195	400,290

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

		For the year ended 31 December	
	Notes	2022	2021 (Restated)
Purchases of primary and auxiliary materials, equipment and finished goods from:			
	(iv)		
Fellow subsidiaries	(ix)	4,494,021	3,263,448
Associates of Chinalco		91,079	35,595
Joint ventures		5,240,707	6,565,742
Associates		2,659,604	9,175,427
		12,485,411	19,040,212
Purchases of utility services from:			
	(ii)		
Fellow subsidiaries	(ix)	6,805,618	6,567,433
Associates of Chinalco		121,413	97,314
Joint ventures		1,074,266	823,146
Associates		399,634	314,528
		8,400,931	7,802,421
Purchases of other services by:			
Fellow subsidiaries		320,611	270,972
		320,611	270,972
Lease payment to:			
	(vi)		
Fellow subsidiaries	(ix)	1,399,258	656,063
Associates of Chinalco		14	523
Joint ventures		2,088	–
Associates		54,892	53,711
		1,456,252	710,297

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)**(a) Significant related party transactions (Continued)**

	Notes	For the year ended 31 December	
		2022	2021 (Restated)
New right-of-use assets in current period			
Additions			
Chinalco and its subsidiaries	(vi)	347,836	83,249
Joint ventures		14,079	–
Associates		6,948	–
Contract modification			
Chinalco and its subsidiaries		(992,701)	5,675,721
Interest expense on lease liabilities		671,239	309,107
Other significant related party transactions:	(viii)		
Borrowing from a subsidiary of Chinalco	(viii)	5,052,000	4,666,000
Repayment of borrowings from a subsidiary of Chinalco	(viii)	4,588,000	7,574,007
Interest expense on borrowings and discounted notes	(viii)	71,224	142,862
Interest income from cash and cash equivalents deposited	(viii)	190,235	80,135
Trade receivable factor to a subsidiary of Chinalco	(viii)	–	1,566,707
Insurance notes receivable from a subsidiary of Chinalco	(viii)	331,329	556,354
Discounted notes receivable to a subsidiary of Chinalco	(viii)	306,826	128,000

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

All transactions with related parties were conducted at prices and on terms mutually agreed by the parties involved, which are determined as follows:

- (i) Sales of materials and finished goods comprised sales of alumina, primary aluminum, copper and scrap materials. Transactions entered into are covered by general agreements on a mutual provision of production supplies and ancillary services. The pricing policy is summarised below:
 - 1. The price prescribed by the PRC government ("state-prescribed price") is adopted;
 - 2. If there is no state-prescribed price, state-guidance price is adopted;
 - 3. If there is neither state-prescribed price nor state-guidance price, then the market price (being price charged to and from independent third parties) is adopted; and
 - 4. If none of the above is available, then the adoption of a contractual price (being reasonable costs incurred in providing the relevant services plus not more than 5% of such costs is adopted).
- (ii) Utility services, including electricity, gas, heat and water, are provided at the state-prescribed price.
- (iii) Engineering, project construction and supervisory services were provided for construction projects. The state-guidance price or prevailing market price (including the tender price where by way of tender) is adopted for pricing purposes.
- (iv) The pricing policy for purchases of key and auxiliary materials (including bauxite, limestone, carbon, cement and coal) is the same as that set out in (i) above.

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

- (v) Social services and logistics services provided by Chinalco Group cover public security, fire services, education and training, school and hospital services, cultural and physical education, newspaper and magazines, broadcasting and printing as well as property management, environmental and hygiene, greenery, nurseries and kindergartens, sanatoriums, canteens and offices, public transport and retirement management and other services. Provisions of these services are covered by the Comprehensive Social and Logistics Services Agreement. The pricing policy is the same as that set out in (i) above.
- (vi) Pursuant to the land use right lease agreements entered into between the Group and Chinalco Group, operating leases for industrial or commercial land are charged at the market rent rate. The Group also entered into a building rental agreement with Chinalco Group and paid rents based on the market rate for its lease of buildings owned by Chinalco.
- (vii) Other services are environmental protection operation services. The prevailing market price is adopted for pricing purposes.
- (viii) Chinalco Finance Company Limited ("Chinalco Finance") (中鋁財務有限責任公司), a wholly-owned subsidiary of Chinalco and a non-bank financial institution established in the PRC, provides deposit services, credit services and miscellaneous financial services to the Group. The terms for the provision of financial services to the Group are no less favourable than those of the same type of financial services provided by Chinalco Finance to Chinalco and other members of its group or those of the same type of financial services that may be provided to the Group by other financial institutions.

During the year ended 31 December 2022, the Group has no factoring transaction with Chinalco Finance. During the year ended 31 December 2021, the Group derecognised accounts receivable of RMB1,650 million by factoring transaction with Chinalco Finance, and the related fees amounted to RMB83.29 million were recognised in other losses.

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(a) Significant related party transactions (Continued)

(ix) These related party transactions also constitute connected transactions or continuing connected transactions as defined in Chapter 14A of the Listing Rules.

(x) In 2022, the Company acquired 19% of the issued share capital of Yunnan Aluminum from Yunnan Metallurgical, a subsidiary of Chinalco, for a cash consideration of RMB6,662 million and 100% equity interests of Pingguo Aluminum from Chinalco for a cash consideration of RMB1,887 million (Note 41).

On 27 December 2022, the Company and Yunnan Aluminum made capital contribution to Chinalco High-end Manufacturing, a subsidiary of Chinalco, obtained approximately 2.1422% and 7.0148% equity interests, respectively. (Note 10).

(xi) In September 2021, pursuant to the agreement entered into between China Rare Earth Co., Ltd. ("China Rare Earth", "中國稀有稀土有限公司", a subsidiary of Chinalco), Zunyi Aluminum Co., Ltd. ("Zunyi Aluminum", "遵義鋁業股份有限公司", a subsidiary of the Company), Chalco Mining Co., Ltd. ("Chalco Mining", "中鋁礦業有限公司", a subsidiary of the Company), the Group acquired the gallium business of China Rare Earth for a consideration of RMB396 million in cash. This transaction is regarded as a business combination under common control.

(xii) In 2022, the Group made an equity investment in Chinalco High-end Manufacturing and obtained approximately 9.16% equity interests (Note 10).

The English names represent the best effort made by management of the Group in translating the Chinese names of the Companies as they do not have any official English names.

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)**(b) Balances with related parties**

Other than those disclosed elsewhere in the consolidated financial statements, the outstanding balances with related parties at the year-end are as follows:

	31 December 2022	31 December 2021 (Restated)
Cash and cash equivalents deposited with		
A subsidiary of Chinalco (i)	8,715,645	8,250,506
Trade and notes receivables		
Chinalco and its subsidiaries	1,111,857	1,222,066
Associates of Chinalco	37,474	36,680
Joint ventures	390,600	632,596
Associates	722	62
Non-controlling shareholder of a subsidiary and its subsidiaries	16,124	24,465
	1,556,777	1,915,869
Provision for impairment of receivables	(57,930)	(79,971)
	1,498,847	1,835,898

- (i) Pursuant to the agreement entered into between the Company and Chinalco Finance, Chinalco Finance agreed to provide deposit services, credit services and other financial services to the Group.

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(b) Balances with related parties (Continued)

	31 December 2022	31 December 2021 (Restated)
Other current assets		
Chinalco and its subsidiaries	90,720	330,757
Associates of Chinalco	20,573	21,820
Joint ventures	1,423,900	1,487,416
Associates	36,002	383,917
Non-controlling shareholder of a subsidiary and its subsidiaries	7,450	7,450
Provision for impairment of other current assets	1,311,839	(1,332,041)
	266,806	(899,319)
Other non-current assets		
Associates	70,190	111,845
Interest-bearing loans and borrowings:		
Subsidiaries of Chinalco (including lease liabilities)	12,274,126	13,179,706
Associates of Chinalco	1,696	2,245
Joint ventures	12,610	–
Associates	104,446	–
	12,392,878	13,181,951

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)**(b) Balances with related parties (Continued)**

	31 December 2022	31 December 2021 (Restated)
Trade and notes payables		
Chinalco and its subsidiaries	1,289,819	1,908,490
Associates of Chinalco	22,547	26,920
Joint ventures	112,436	37,807
Associates	199,465	257,118
Non-controlling shareholder of a subsidiary and its subsidiaries	77,008	105,174
	1,701,275	2,335,509
Other payables and accrued liabilities		
Chinalco and its subsidiaries	679,610	1,057,833
Associates of Chinalco	244,093	42,659
Associates	29,573	19,926
Joint ventures	87,374	49,618
Non-controlling shareholder of a subsidiary and its subsidiaries	1,872	–
	1,042,522	1,170,036
Contract liabilities:		
Chinalco and its subsidiaries	36,471	40,787
Associates of Chinalco	654	34,212
Associates	1,362	8,969
Joint ventures	278,941	97,816
	317,428	181,784

38 SIGNIFICANT RELATED PARTY TRANSACTIONS AND BALANCES (CONTINUED)

(b) Balances with related parties (Continued)

Apart from transactions with Chinalco and its fellow subsidiaries, associates and joint ventures of the Group, the Group's transactions with other state-controlled entities include but is not limited to the following:

- Sales and purchases of goods and services,
- Purchases of assets,
- Lease of assets; and
- Bank deposits and borrowings.

These transactions are conducted in the ordinary course of the Group's business.

The terms of all balances were unsecured.

(c) Compensation of key management personnel

	2022	2021 (Restated)
Fees	617	580
Basic salaries, other allowances and benefits in kind	5,900	6,225
Pension costs	707	634
	7,224	7,439

Key management includes directors, supervisors and members of senior managements.

(d) Commitments with related parties

As at 31 December 2022 and 2021, except for the other capital commitments disclosed in Note 43(b) to these financial statements, the Group had no significant commitments with related parties.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT

39.1 Financial risk management

The Group's activities expose it to a variety of financial risks, including market risk (including foreign currency risk, interest rate risk and commodity price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise the potential adverse effects on the Group's financial performance.

Risk management is carried out by the treasury management department (the "Group Treasury") under policies approved by the Board of Directors of the Company. The Group Treasury identifies, evaluates and hedges financial risks through close cooperation with the Group's operating units.

(a) Market risk

(i) Foreign currency risk

The Group's foreign currency risk arose from transaction conducted in currency other than the functional currency of the group entities. The Group's foreign currency risk primarily arises from foreign currency deposits, trade receivables, trade payables and short-term and long-term loans denominated in United States dollars ("USD"). Related exposures are disclosed in Notes 16, 14, 25, and 21 to the consolidated financial statements, respectively. The Group Treasury closely monitors the international foreign currency market on the change of exchange rates and takes these into consideration when investing in foreign currency deposits and borrowing loans. As at 31 December 2022, the Group only had significant exposure to USD.

As at 31 December 2022, if RMB had strengthened/weakened by 5% against USD with all other variables held constant, the profit for the year would have been approximately RMB47 million lower/higher (2021: RMB29 million lower/higher), mainly as a result of foreign exchange gains and losses arising from translation of USD denominated borrowings, account payables, account receivables and cash and cash equivalent.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(a) Market risk (Continued)

(i) Foreign currency risk (Continued)

As the assets and liabilities denominated in other foreign currencies other than USD were relatively minimal to the total assets and liabilities of the Group, the directors of the Company are of the opinion that the Group was not exposed to significant foreign currency risk arising from other assets and liabilities denominated in currency other than the functional currency of the group entities as at 31 December 2022 and 2021.

(ii) Interest rate risk

As at 31 December 2022, as the Group had no significant interest-bearing assets or liabilities except for bank deposits (Note 16), entrusted loans (Note 15) and Interest-bearing loans (Note 21).

Most of the bank deposits are maintained in savings and time deposit accounts in the PRC. The interest rates are regulated by the People's Bank of China and the Group Treasury closely monitors the fluctuation on such rates periodically. The directors of the Company are of the opinion that the Group was not exposed to any significant interest rate risk for its financial assets held as at 31 December 2022 and 2021.

The interest rate risk for the Group's financial liabilities primarily arises from interest-bearing loans. Loans borrowed at floating interest rates expose the Group to cash flow interest rate risk. The Group Treasury closely monitors market interest rates and maintains a balance between variable rate and fixed rate borrowings in order to reduce the exposures to the interest rate risk described above.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(a) Market risk (Continued)

(ii) Interest rate risk

As at 31 December 2022, if interest rates had been 100 basis points (31 December 2021: 100 basis points) higher/lower for bank and other loans borrowed at floating interest rates with all other variables held constant, net profit for the year would have been RMB233 million lower/higher (2021: RMB277 million), respectively, mainly as a result of the higher/lower interest expense on floating rate borrowings. However, the Group didn't apply hedging accounting.

The fair value interest rate risk of the Group mainly arises from medium term notes and short term bonds issued at fixed rates. As the fluctuation of comparable interest rates of corporate bonds with similar terms was relatively low, the directors of the Company are of the opinion that the Group was not exposed to any significant fair value interest rate risk for its fixed interest rate borrowings held as at 31 December 2022 and 2021.

(iii) Commodity price risk

The Group uses futures and option contracts to reduce its exposure to fluctuations in the price of primary aluminum and other products. The Group uses the futures contract for offsetting other than speculation. With reference to the hedging of primary aluminum, production company hedges the output of primary aluminum and trading company hedges the quantities of buyout and self-supporting. However, the Group didn't apply hedging accounting.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(a) Market risk (Continued)

(iii) Commodity price risk

The Group uses mainly futures contracts and option contracts traded on the Shanghai Futures Exchange and London Metal Exchange ("LME") to hedge against fluctuations in primary aluminum prices. As at 31 December 2022, the fair values of the outstanding futures contracts amounting to RMB9 million (31 December 2021: RMB69 million) were recognised in financial liabilities at fair value through profit or loss.

As at 31 December 2022, if the commodity futures prices had increased/decreased by 3% (31 December 2021:3%) and all other variables held constant, profit for the year would have changed by the amounts shown below:

	31 December 2022	31 December 2021
Primary aluminum	Decrease/increase RMB9 million	Decrease/increase RMB6 million

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(b) Credit risk

Credit risk arises from balances with banks and financial institutions, trade and notes receivables, other current and non-current receivables as well as credit exposures of customers, including outstanding receivables and committed transactions.

The Group maintains substantially all of its bank balances and cash and short-term investments in Chinalco Finance and several major state-owned banks in the PRC. With strong support from the PRC government to these state-owned banks, the directors of the Company are of the opinion that there is no significant credit risk on such assets being exposed to losses.

The Group applies the simplified approach to its trade receivables to provide for expected credit losses prescribed by IFRS 9, which permits the use of the lifetime expected loss provision for trade receivables. The Group has made individual assessment for trade receivables from clients with top rating and receivables with pledged assets and impairment provisions are made.

To measure the expected credit losses of trade receivables other than those assessed individually as mentioned above, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected credit loss model also incorporates forward-looking information.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(b) Credit risk (Continued)

For other current and non-current receivables, the Group considers the probability of default upon initial recognition of an asset and whether there has been a significant increase in credit risk on an ongoing basis throughout each reporting period. To assess whether there is a significant increase in credit risk the company compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forwarding-looking information. Especially the following indicators are incorporated:

- internal credit rating
- external credit rating
- actual or expected significant adverse changes in business, financial or economic conditions that are expected to cause a significant change to the borrower's ability to meet its obligations
- significant changes in the expected performance and behaviour of the clients

The Group measures expected credit loss rates on the basis of a loss rate approach by segmenting its portfolio into appropriate groupings based on shared credit risk characteristics. At the end of each year, the Group updates its historical loss information with forward-looking information. As the historical credit loss rates were comparatively stable and no significant changes were expected to the forward-looking information after the consideration of reasonable and supportable forecasts of comparatively stable customer relationship and customers' credit ratings, the expected credit loss rates remained consistent during 2022.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(b) Credit risk (Continued)

The table below shows the credit quality and the maximum exposure to credit risk based on the Group's credit policy, which is mainly based on past due information unless other information is available without undue cost or effort, and year-end staging classification as at 31 December 2022. The amounts presented are carrying amounts for financial assets and the exposure to credit risk for the financial guarantee contracts, if any.

	Stage 1	Stage 2	Stage 3	Simplified	Total
Trade receivables	–	–	–	5,055,178	5,055,178
Financial assets in other current assets	1,409,640	107,559	3,390,246	–	4,907,445
Restricted cash	2,443,249	–	–	–	2,443,249
Notes receivable	–	–	–	1,767,625	1,767,625
Cash and cash equivalents	16,816,684	–	–	–	16,816,684
Financial assets in other non-current assets	–	–	513,281	–	513,281
Total	20,669,573	107,559	3,903,527	6,822,803	31,503,462

The carrying amounts of short-term investments and these receivables included in Notes 12, 14, 15 and 16 represent the Group's maximum exposure to credit risk. The directors of the Company are of the opinion that the Group was not exposed to any significant concentration of credit risk as at 31 December 2022 and 2021.

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(c) Liquidity risk

Cash flow forecast is performed in the operating entities of the Group and aggregated by the Group Treasury. The Group Treasury monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs while maintaining sufficient headroom on its undrawn committed borrowing facilities at all times so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. This forecast takes into consideration of the Group's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and, if applicable, external regulatory or legal requirements, for example, currency restrictions.

Management also monitors rolling forecasts of the Group's liquidity reserve on the basis of expected cash flows.

As at 31 December 2022, the Group's current liabilities exceeded its current assets by approximately RMB7,831 million (31 December 2021 (restated): RMB7,806 million), please refer to Note 3.1.2 for the assessment made by the Company.

The table below analyses the maturity profile of the Group's financial liabilities as at the end of the reporting period. The amounts disclosed in the table are the contractual undiscounted cash flows.

**39 FINANCIAL AND CAPITAL RISK MANAGEMENT
(CONTINUED)****39.1 Financial risk management (Continued)****(c) Liquidity risk (Continued)**

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
As at 31 December 2022					
Lease liabilities, including current portion	1,651,935	1,314,558	3,092,936	13,939,859	19,999,288
Long-term bank and other loans, including current portion	13,486,345	6,604,880	20,579,821	6,878,511	47,549,557
Medium-term notes and bonds, including current portion	4,400,000	6,712,761	6,110,823	2,000,000	19,223,584
Short-term bonds	2,600,000	–	–	–	2,600,000
Short-term bank and other loans	6,461,103	–	–	–	6,461,103
Interest payables for loans and borrowings	2,285,428	1,490,176	1,468,119	1,046,655	6,290,378
Financial liabilities at fair value through profit or loss	8,767	–	–	–	8,767
Financial liabilities included other payables and accrued liabilities, excluding accrued interest	6,786,894	–	–	–	6,786,894
Financial liabilities included in other non-current liabilities	203,428	50,198	150,595	839,964	1,244,185
Trade and notes payables	22,536,331	–	–	–	22,536,331
	60,420,231	16,172,573	31,402,294	24,704,989	132,700,087

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.1 Financial risk management (Continued)

(c) Liquidity risk (Continued)

	Within 1 year	1 to 2 years	2 to 5 years	Over 5 years	Total
As at 31 December 2021					
Lease liabilities, including current portion	1,513,435	1,402,567	4,137,823	14,651,190	21,705,015
Long-term bank and other loans, including current portion	6,164,215	17,424,952	10,787,187	14,720,982	49,097,336
Medium-term notes and bonds, including current portion	3,000,000	4,400,000	9,875,700	2,000,000	19,275,700
Short-term bonds	5,400,000	–	–	–	5,400,000
Short-term bank and other loans	11,937,178	–	–	–	11,937,178
Interest payables for loans and borrowings	2,703,535	2,242,239	3,961,075	1,680,780	10,587,629
Financial liabilities at fair value through profit or loss	68,871	–	–	–	68,871
Financial liabilities included other payables and accrued liabilities, excluding accrued interest	8,939,681	–	–	–	8,939,681
Financial liabilities included in other non-current liabilities	352,273	202,541	147,002	885,208	1,587,024
Trade and notes payables	18,588,416	–	–	–	18,588,416
	58,667,604	25,672,299	28,908,787	33,938,160	147,186,850

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments

(a) Financial instruments by category

The carrying amounts of each of the categories of financial instruments of the Group as at the end of the reporting period are as follows:

Financial assets

	31 December 2022				Total
	Financial assets at fair value through profit or loss-held for trading	Financial assets at amortised cost	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	
Current					
Trade receivables	-	5,055,178	-	-	5,055,178
Notes receivable	-	411,145	-	1,356,480	1,767,625
Restricted cash	-	2,443,249	-	-	2,443,249
Cash and cash equivalents	-	16,816,684	-	-	16,816,684
Financial assets included in other current assets	-	4,907,445	-	-	4,907,445
Subtotal	-	29,633,701	-	1,356,480	30,990,181
Non-current					
Other financial assets measured at fair value	-	-	2,161,085	-	2,161,085
Other non-current assets	-	513,281	-	-	513,281
Subtotal	-	513,281	2,161,085	-	2,674,366
Total	-	30,146,982	2,161,085	1,356,480	33,664,547

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(a) Financial instruments by category (Continued)

Financial liabilities

	31 December 2022		
	Financial assets at fair value through profit or loss-held for trading	Financial liabilities at amortised cost	Total
Current			
Financial liabilities at fair value through profit or loss	8,767	–	8,767
Interest-bearing loans and borrowings	–	27,859,353	27,859,353
Financial liabilities included in other payables and accrued liabilities (<i>Note 24</i>)	–	7,344,765	7,344,765
Trade and notes payables	–	22,536,331	22,536,331
Subtotal	8,767	57,740,449	57,749,216
Non-current			
Financial liabilities included in other non-current liabilities (<i>Note 23</i>)	–	660,867	660,867
Interest-bearing loans and borrowings	–	58,596,765	58,596,765
Subtotal	–	59,257,632	59,257,632
Total	8,767	116,998,081	117,006,848

**39 FINANCIAL AND CAPITAL RISK MANAGEMENT
(CONTINUED)****39.2 Financial instruments (Continued)****(a) Financial instruments by category (Continued)****Financial assets**

	31 December 2021 (Restated)				
	Financial assets at fair value through profit or loss-held for trading	Financial assets at amortised cost	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	Total
Current					
Trade receivables	-	4,043,972	-	-	4,043,972
Notes receivable	-	1,207,602	-	2,867,877	4,075,479
Restricted cash	-	1,400,988	-	-	1,400,988
Cash and cash equivalents	-	19,683,619	-	-	19,683,619
Financial assets included in other current assets	-	5,565,543	-	-	5,565,543
Subtotal	-	31,901,724	-	2,867,877	34,769,601
Non-current					
Other financial assets measured at fair value	-	-	457,686	-	457,686
Other non-current assets	-	504,307	-	-	504,307
Subtotal	-	504,307	457,686	-	961,993
Total	-	32,406,031	457,686	2,867,877	35,731,594

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(a) Financial instruments by category (Continued)

Financial Liabilities

	31 December 2021 (Restated)		
	Financial assets at fair value through profit or loss-held for trading	Financial liabilities at amortised cost	Total
Current			
Financial liabilities at fair value through profit or loss	68,871	–	68,871
Interest-bearing loans and borrowings	–	27,665,370	27,665,370
Financial liabilities included in other payables and accrued liabilities (Note 24)	–	9,616,725	9,616,725
Trade and notes payables	–	18,588,416	18,588,416
Subtotal	68,871	55,870,511	55,939,382
Non-current			
Financial liabilities included in other non- current liabilities (Note 23)	–	880,864	880,864
Interest-bearing loans and borrowings	–	69,674,935	69,674,935
Subtotal	–	70,555,799	70,555,799
Total	68,871	126,426,310	126,495,181

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy

Fair value

Management has assessed that the fair values of cash and cash equivalents, restricted cash and time deposits, trade and notes receivables, financial assets included in other current assets, entrusted loans, trade and notes payables, financial liabilities included in other payables and accrued liabilities, short-term and the current portion of interest-bearing loans and borrowings, interest payable and the current portion of long-term payables approximate to their carrying amounts largely due to the short term maturities of these instruments.

Other than those with carrying amounts that reasonably approximate to fair values and those carried at fair value, are as follows:

	Carrying amounts		Fair values	
	31 December 2022	31 December 2021	31 December 2022	31 December 2021
Financial liabilities				
Financial liabilities included in other non-current liabilities (<i>Note 23</i>)	660,867	880,864	590,869	768,170
Long-term interest-bearing loans and borrowings, excluding lease liability (<i>Note 21</i>)	49,387,292	59,156,405	45,885,166	55,623,890
	50,048,159	60,037,269	46,476,035	56,392,060

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

The fair values of the financial assets and liabilities are determined as the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale.

The fair values of the financial assets included in other non-current assets and financial liabilities included in other non-current liabilities and long-term interest-bearing loans and borrowings have been calculated by discounting the expected future cash flows using rates currently available for instruments on with similar terms, credit risk and remaining maturities.

**39 FINANCIAL AND CAPITAL RISK MANAGEMENT
(CONTINUED)****39.2 Financial instruments (Continued)****(b) Fair value and fair value hierarchy (Continued)*****Fair value hierarchy***

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Assets measured at fair value

As at 31 December 2022	Fair value measurement using			
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Notes receivable	–	–	1,356,480	1,356,480
Listed equity investments	34,751	–	–	34,751
Other unlisted investment	–	–	2,126,334	2,126,334
	34,751	–	3,482,814	3,517,565

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

Assets measured at fair value (Continued)

As at 31 December 2021	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Notes receivable	–	–	2,867,877	2,867,877
Listed equity investments	45,133	–	–	45,133
Other unlisted investment	–	–	412,553	412,553
	45,133	–	3,280,430	3,325,563

**39 FINANCIAL AND CAPITAL RISK MANAGEMENT
(CONTINUED)****39.2 Financial instruments (Continued)****(b) Fair value and fair value hierarchy (Continued)*****Fair value hierarchy (Continued)****Liabilities measured at fair value*

As at 31 December 2022

	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at fair value through profit or loss: Futures contracts	8,767	–	–	8,767
	8,767	–	–	8,767

As at 31 December 2021

	Fair value measurement using			Total
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	
Financial liabilities at fair value through profit or loss: Futures contracts	68,871	–	–	68,871
	68,871	–	–	68,871

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

Liabilities for which fair values are disclosed :

As at 31 December 2022	Fair value measurement using			
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Financial liabilities at amortised cost:				
Financial liabilities included in other non-current liabilities	–	–	590,869	590,869
Long-term interest-bearing loans and borrowings	–	–	45,885,166	45,885,166
	–	–	46,476,035	46,476,035

As at 31 December 2021	Fair value measurement using			
	Quoted prices in active markets (Level 1)	Significant observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Financial liabilities at amortised cost:				
Financial liabilities included in other non-current liabilities	–	–	768,170	768,170
Long-term interest-bearing loans and borrowings	–	–	55,623,890	55,623,890
	–	–	56,392,060	56,392,060

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.2 Financial instruments (Continued)

(b) Fair value and fair value hierarchy (Continued)

Fair value hierarchy (Continued)

During the year ended 31 December 2022 the Group had no transfers of fair value measurements between Level 1 and Level 2 and no transfers into or out of Level 3 for both financial assets and financial liabilities (2021: Nil).

Below is a summary of significant unobservable inputs to the valuation of financial instruments as at 31 December 2022:

	Valuation Technique	Significant unobservable input
Other equity investments		
31 December 2022	Discounted Cashflow model	Discount rate, gross margin, sales growth rate
Notes receivable		
31 December 2022	Discounted Cashflow model	Discount rate
Financial liabilities included in other non-current liabilities		
31 December 2022	Discounted Cashflow model	Discount rate
Long-term interest-bearing loans and borrowings		
31 December 2022	Discounted Cashflow model	Discount rate

39 FINANCIAL AND CAPITAL RISK MANAGEMENT (CONTINUED)

39.3 Capital risk management

The Group's capital management objectives are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new shares or sell assets to reduce debts.

Consistent with other entities in the industry, the Group monitors capital on the basis of its debt to asset ratio.

Debt to asset ratio as at 31 December 2022 and 2021 are as follows:

	31 December 2022	31 December 2021 (Restated)
Debt to asset ratio	58.67%	60.11%

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

40 NON-CONTROLLING INTERESTS

Details of the Group's subsidiaries that have material non-controlling interests are set out below:

	31 December 2022	31 December 2021 (Restated)
Percentage of equity interest held by non-controlling interests		
Yunnan Aluminum	70.90%	70.90%
Ningxia Energy	29.18%	29.18%
Profit/(loss) for the year allocated to non-controlling interests		
Yunnan Aluminum	3,822,549	2,850,754
Ningxia Energy	818,960	(90,237)
Dividends distributed to non-controlling interests		
Yunnan Aluminum	464,414	103,234
Ningxia Energy	1,630	115,380
Accumulated balances of non-controlling interests at the year end		
Yunnan Aluminum	17,602,176	14,261,948
Ningxia Energy	5,893,332	5,055,069

40 NON-CONTROLLING INTERESTS (CONTINUED)

The following tables illustrate the summarised financial information of the above subsidiaries.

The amounts disclosed are before any inter-company eliminations:

	Yunnan Aluminum	
	2022	2021
Revenue	48,463,025	41,668,819
Total expenses	43,195,002	37,456,484
Profit for the year	5,268,023	4,212,335
Total comprehensive income for the year	5,250,479	4,225,069
Current assets	8,245,650	5,360,494
Non-current assets	30,798,212	32,476,625
Current liabilities	9,046,545	9,836,320
Non-current liabilities	4,720,806	7,090,461
Net cash flows from operating activities	6,916,119	6,961,628
Net cash flows used in investing activities	(1,033,033)	(1,181,811)
Net cash flows used in financing activities	(4,590,174)	(4,773,308)
Effect of foreign exchange rate changes, net	4,194	(1,466)
Net increase in cash and cash equivalents	1,297,106	1,005,043

40 NON-CONTROLLING INTERESTS (CONTINUED)

	Ningxia Energy	
	2022	2021
Revenue	9,038,881	7,670,316
Total expenses	7,397,765	7,979,557
Profit/(loss) for the year	1,641,116	(309,241)
Total comprehensive income/(loss) for the year	1,641,116	(309,241)
Current assets	3,615,322	2,912,805
Non-current assets	27,756,457	29,086,775
Current liabilities	9,043,923	8,256,229
Non-current liabilities	9,651,197	12,710,354
Net cash flows from operating activities	3,529,657	5,458,921
Net cash flows used in investing activities	(760,210)	(802,678)
Net cash flows used in financing activities	(2,446,726)	(5,381,480)
Effect of foreign exchange rate changes, net	—	—
Net increase/(decrease) in cash and cash equivalents	322,721	(725,237)

41 BUSINESS COMBINATION UNDER COMMON CONTROL

Acquisition 19% of the issued share capital of Yunnan Aluminum

Pursuant to the agreement entered into in July 2022 between Yunnan Metallurgical, the Company has agreed to acquire and Yunnan Metallurgical has agreed to dispose of 658,911,907 shares in Yunnan Aluminum, representing approximately 19% of the total issued share capital of Yunnan Aluminum for a cash consideration of RMB6,662 million. Upon the completion of the Transaction, the Company held 1,009,202,685 shares in Yunnan Aluminum, representing approximately 29.10% of the total issued share capital of Yunnan Aluminum and became the largest shareholder of Yunnan Aluminum. The acquisition was completed on 22 November, 2022.

Acquisition 100% of equity interests in Pingguo Aluminum

Pursuant to the agreement entered into in August 2022 between Chinalco and the Company, the Company agreed to acquire the 100% of equity interests of Pingguo Aluminum, for a cash consideration of RMB1,887 million. The acquisition was completed on 1 December, 2022.

As the Company, Yunnan Aluminum and Pingguo Aluminum are under common control of Chinalco both before and after the transactions, and that control is not transitory, the transactions are regarded as business combination under common control. The consolidated financial statements for the year ended 31 December 2022 has combined the financial statements of the acquired companies from the beginning of the earliest period presented (Note 3.3(a)). The comparative financial data have been restated accordingly.

**41 BUSINESS COMBINATION UNDER COMMON CONTROL
(CONTINUED)**

Revenue and net profit of the acquired entities for the period from 1 January 2022 to the acquisition date and for the year ended 31 December 2021 are as follows:

	Yunnan Aluminum	
	For the period from 1 January 2022 to the acquisition date	2021
Revenue	44,816,260	41,668,819
Net profit	4,722,177	4,212,335

	Pingguo Aluminum	
	For the period from 1 January 2022 to the acquisition date	2021
Revenue	437,080	463,874
Net profit	68,312	36,887

Details of the purchase consideration, the net assets acquired are as follows:

	Yunnan Aluminum	Pingguo Aluminum
Purchase consideration:		
Cash paid	6,661,599	1,887,474
Total purchase consideration	6,661,599	1,887,474

41 BUSINESS COMBINATION UNDER COMMON CONTROL (CONTINUED)

The carrying amounts of assets, liabilities and equity of the acquired companies at the acquisition date and 31 December 2021 are as follows:

Yunnan Aluminum		
	Acquisition date	31 December 2021
Current assets	7,784,570	5,360,494
Non-current assets	30,958,951	32,476,625
Current liabilities	(9,439,091)	(9,836,320)
Non-current liabilities	(4,130,537)	(7,090,461)
Net assets	25,173,893	20,910,338
Less: non-controlling interests	3,318,207	2,719,017
Net assets attributable to owners of the company	21,855,686	18,191,321

Pingguo Aluminum		
	Acquisition date	31 December 2021
Current assets	428,011	319,694
Non-current assets	472,321	494,583
Current liabilities	(136,806)	(117,723)
Non-current liabilities	—	—
Net assets	763,526	696,554
Less: non-controlling interests	6,564	5,834
Net assets attributable to owners of the company	756,962	690,720

The adjustment on the beginning balance of the Group's total equity amounting to RMB10,622 million and RMB16,840 million for the year ended 31 December 2021 and 2022, respectively, represented the total equity of Yunnan Aluminum and Pingguo Aluminum at the same date which were combined to the consolidated balance sheet of the Group. The consideration of RMB8,549 million paid in 2022 was treated as a decrease in capital reserves.

42 CONTINGENT LIABILITIES

As at 31 December 2022 and the date of this report, the Group is in process of application with related government departments for re-verifying carbon emission data for certain coal-fired power plants to avoid unnecessary obligations of excessive emission, the conclusion of which will not result in material additional liabilities to be recognised by the Group.

The Group is a defendant in a number of lawsuits arising in the ordinary course of business. While the outcomes of such lawsuits cannot be determined at present, management believes that any resulting liabilities will not have a material adverse effect on the financial position or operating results the Group.

43 COMMITMENTS

(a) Capital commitments

	31 December 2022	31 December 2021 (Restated)
Property, plant and equipment	2,181,828	1,794,574

(b) Other capital commitments

As at 31 December 2022, the commitments to make capital contributions to the Group's joint ventures and associates were as follows:

	31 December 2022	31 December 2021
Associates	31,800	31,800
Joint ventures	410,000	410,000
Investments measured at fair value	1,019,000	–
	1,460,800	441,800

44 EVENTS AFTER THE REPORTING PERIOD

As of the date of this report, no significant subsequent event happened.

45 COMPARATIVE AMOUNT

Certain comparative amounts have been restated as a result of the business combinations under common control as disclosed in Note 41 and application of new amendment to IAS16 as described in Note 3.1.4.

46 STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	31 December 2022	31 December 2021 (Restated)
ASSETS		
Non-current assets		
Intangible assets	944,342	941,660
Property, plant and equipment	7,459,482	8,937,491
Investment properties	280,959	39,143
Right-of-use assets	4,726,622	4,831,731
Investments in subsidiaries	67,347,036	60,247,462
Investments in joint ventures	1,809,149	1,805,137
Investments in associates	4,238,635	7,703,008
Other financial assets measured at fair value	410,084	13,670
Deferred tax assets	191,093	394,976
Other non-current assets	10,585,149	5,952,391
Total non-current assets	97,992,551	90,866,669

**46 STATEMENT OF FINANCIAL POSITION OF THE COMPANY
(CONTINUED)**

	31 December 2022	31 December 2021 (Restated)
Current assets		
Inventories	1,985,419	2,162,094
Trade and notes receivables	371,273	695,624
Other current assets	22,628,618	20,744,429
Restricted cash	118,123	117,667
Cash and cash equivalents	6,545,757	11,519,416
Total current assets	31,649,190	35,239,230
Total assets	129,641,741	126,105,899
EQUITY AND LIABILITIES		
EQUITY		
Equity attributable to owners of the parent		
Share capital	17,161,592	17,022,673
Shares held for employee share scheme	(404,685)	
Other equity instruments	2,000,000	2,498,429
Other reserves	33,017,763	32,528,472
Retained earnings	2,203,091	1,341,772
Total equity	53,977,761	53,391,346
LIABILITIES		
Non-current liabilities		
Interest-bearing loans and borrowings	32,055,675	34,819,175
Other non-current liabilities	174,025	220,756
Total non-current liabilities	32,229,700	35,039,931

46 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

	31 December 2022	31 December 2021 (Restated)
Current liabilities		
Interest-bearing loans and borrowings	15,712,868	11,666,136
Other payables and accrued liabilities	25,844,460	24,986,811
Contract liabilities	109,948	166,222
Trade and notes payables	1,767,004	844,107
Other financial liabilities measured at fair value	–	11,346
Total current liabilities	43,434,280	37,674,622
Total liabilities	75,663,980	72,714,553
Total equity and liabilities	129,641,741	126,105,899
Net current liabilities	(11,785,090)	(2,435,392)
Total assets less current liabilities	86,207,461	88,431,277

The statement of financial position of the Company was approved by the Board of Directors on 21 March 2023 and was signed on its behalf.

Liu Jianping
Chairman

Ge Xiaolei
Chief Financial Officer

Notes to Financial Statements (Continued)

Year ended 31 December 2022
(Amounts expressed in thousands of RMB
unless otherwise stated)

46 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

Note:

A summary of the Company's reserves is as follows:

	Share premium	Other capital reserves	Statutory surplus reserve	Special reserve	Fair value Reserve	Other equity instruments	Retained earnings	Total
Balance at 31 December 2020	27,818,110	2,853,401	5,867,557	50,033	3,168	4,486,429	(4,924,827)	36,153,871
Changes in accounting policies	-	-	-	-	-	-	(240)	(240)
At 1 January 2021 (Restated)	27,818,110	2,853,401	5,867,557	50,033	3,168	4,486,429	(4,925,067)	36,153,631
Profit for the year	-	-	-	-	-	-	2,546,421	2,546,421
Business combination under common control	(110,436)	-	-	-	-	-	-	(110,436)
Repayment of senior perpetual securities	(12,000)	-	-	-	-	(1,988,000)	-	(2,000,000)
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	-	-	-	-	(35,054)	-	-	(35,054)
Appropriation	-	-	254,642	-	-	-	(254,642)	-
Other appropriation	-	-	-	12,091	-	-	-	12,091
Make up accumulated loss with appropriation of statutory surplus reserve	-	-	(4,229,913)	-	-	-	4,229,913	-
Disposal of other equity instrument investments	-	-	-	-	45,353	-	(45,353)	-
Share of reserves of joint ventures and associates	-	-	-	11,520	-	-	-	11,520
Distribution of other equity instruments	-	-	-	-	-	-	(209,500)	(209,500)
At 31 December 2021 (Restated)	27,695,674	2,853,401	1,892,286	73,644	13,467	2,498,429	1,341,772	36,368,673

46 STATEMENT OF FINANCIAL POSITION OF THE COMPANY (CONTINUED)

Note:

A summary of the Company's reserves is as follows: (Continued)

	Share premium	Other capital reserves	Statutory surplus reserve	Special reserve	Fair value Reserve	Other equity instruments	Retained earnings	Total
Balance at 31 December 2021	27,695,674	2,853,401	1,892,286	73,644	13,467	2,498,429	1,342,012	36,368,913
Changes in accounting policies	-	-	-	-	-	-	(240)	(240)
At 1 January 2022 (Restated)	27,695,674	2,853,401	1,892,286	73,644	13,467	2,498,429	1,341,772	36,368,673
Profit for the period	-	-	-	-	-	-	1,682,538	1,682,538
Changes in fair value of equity investments designated at fair value through other comprehensive incomes, net of tax	-	-	-	-	(7,664)	-	-	(7,664)
Issuance of senior perpetual securities	-	-	-	-	-	2,000,000	-	2,000,000
Dividends distribution	-	-	-	-	-	-	(544,891)	(544,891)
Equity changes caused by share based payment	265,766	-	-	-	-	-	-	265,766
Employee share schemes-value of employee services	-	48,258	-	-	-	-	-	48,258
Repayment of senior perpetual securities	-	-	-	-	-	(2,498,429)	-	(2,498,429)
Share of reserves of joint ventures and Associates	-	-	-	2,096	-	-	-	2,096
Other appropriations	-	-	-	8,498	-	-	-	8,498
Appropriation to surplus reserves	-	-	168,254	-	-	-	(168,254)	-
Distribution of other equity instruments	-	-	-	-	-	-	(109,071)	(109,071)
Special funds injection	-	5,080	-	-	-	-	-	5,080
Transfer remeasurements of defined benefit obligation to retained earnings	-	-	-	-	(997)	-	997	-
At 31 December 2022	27,961,440	2,906,739	2,060,540	84,238	4,806	2,000,000	2,203,091	37,220,854

The statement of financial position of the Company was approved by the Board of Directors on 21 March 2023 and was signed on its behalf.

47 APPROVAL OF THE FINANCIAL STATEMENT

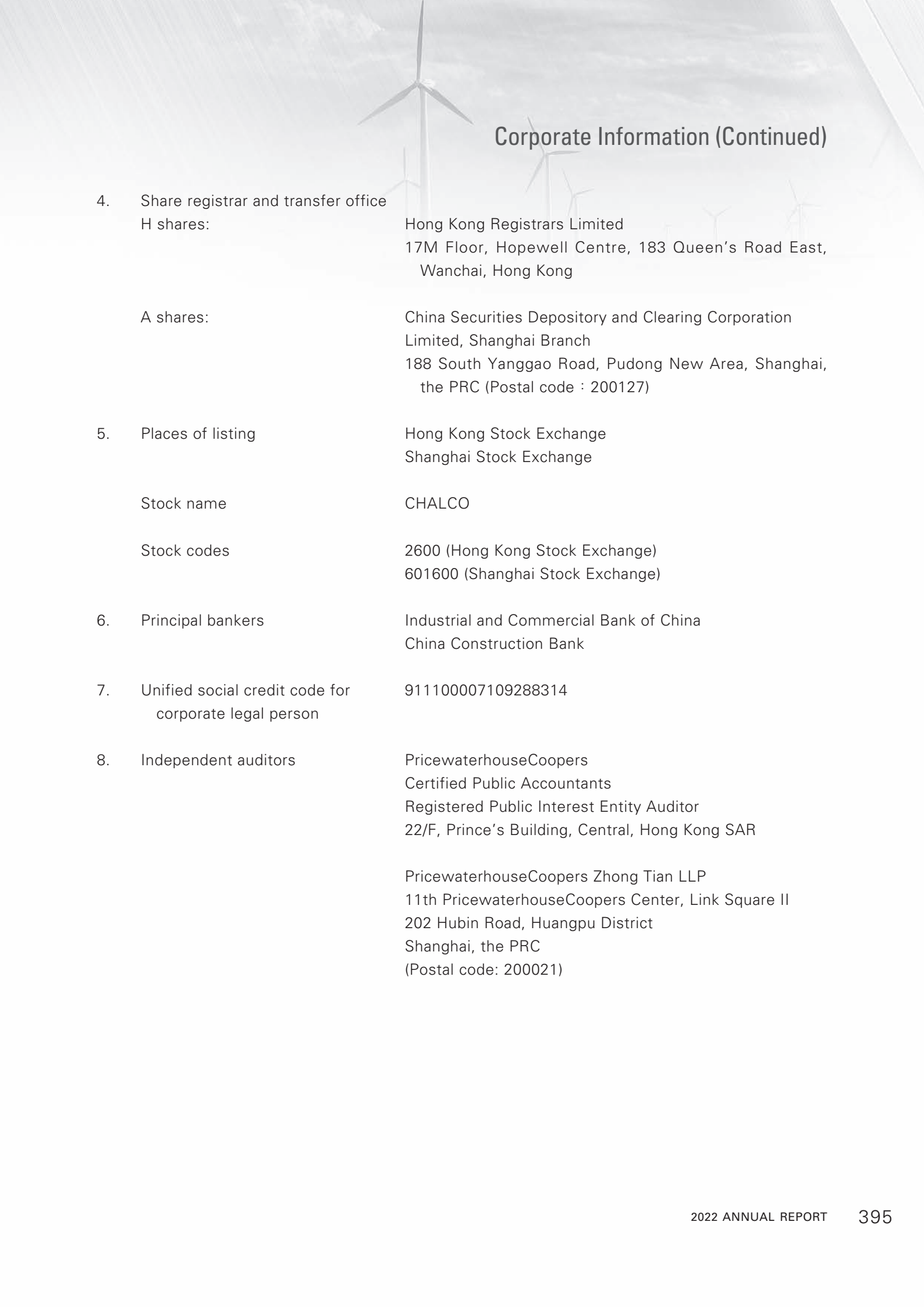
The financial statements were approved and authorised for issue by the Board of Directors on 21 March 2023.

Corporate Information

1. Registered name 中國鋁業股份有限公司
 Abbreviation of Chinese name 中國鋁業
 Name in English ALUMINUM CORPORATION OF CHINA LIMITED
 Abbreviation of English name CHALCO

2. First registration date 10 September 2001
 Registered address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal code: 100082)
 Place of business No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal code: 100082)
 Principal place of business in Hong Kong Room 4501, Far East Finance Centre, No. 16 Harcourt Road, Admiralty, Hong Kong

3. Legal representative Liu Jianping
 Joint Company Secretaries Ge Xiaolei and Ng Ka Man *(Note)*
 Telephone +86(10) 8229 8322
 Fax +86(10) 8229 8158
 E-mail IR@chalco.com.cn
 Address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal Code: 100082)
 Representative for the Company's securities related affairs Gao Lidong
 Telephone +86(10) 8229 8322
 Fax +86(10) 8229 8158
 E-mail IR@chalco.com.cn
 Address No. 62 North Xizhimen Street, Haidian District, Beijing, the PRC (Postal Code: 100082)
 Department for corporate information and inquiry Office of the Board
 Telephone for corporate information and inquiry +86(10) 8229 8322



Corporate Information (Continued)

4. Share registrar and transfer office
- H shares: Hong Kong Registrars Limited
17M Floor, Hopewell Centre, 183 Queen's Road East,
Wanchai, Hong Kong
- A shares: China Securities Depository and Clearing Corporation
Limited, Shanghai Branch
188 South Yanggao Road, Pudong New Area, Shanghai,
the PRC (Postal code : 200127)
5. Places of listing Hong Kong Stock Exchange
Shanghai Stock Exchange
- Stock name CHALCO
- Stock codes 2600 (Hong Kong Stock Exchange)
601600 (Shanghai Stock Exchange)
6. Principal bankers Industrial and Commercial Bank of China
China Construction Bank
7. Unified social credit code for corporate legal person 911100007109288314
8. Independent auditors PricewaterhouseCoopers
Certified Public Accountants
Registered Public Interest Entity Auditor
22/F, Prince's Building, Central, Hong Kong SAR
- PricewaterhouseCoopers Zhong Tian LLP
11th PricewaterhouseCoopers Center, Link Square II
202 Hubin Road, Huangpu District
Shanghai, the PRC
(Postal code: 200021)

Corporate Information (Continued)

9. Legal advisers

as to Hong Kong laws:

Baker & McKenzie

14/F, One Taikoo Place, 979 King's Road, Quarry Bay,
Hong Kong

as to PRC laws:

Jincheng Tongda & Neal Law Firm

10/F, China World Trade Tower A, 1 Jianguomenwai
Avenue, Chaoyang District, Beijing, the PRC

as to United States laws:

Sullivan & Cromwell (Hong Kong) LLP

20th Floor, Alexandra House, 18 Chater Road, Central,
Hong Kong SAR, the PRC

10. Place for inspection of corporate information Office of the Board of the Company

Note: The former company secretary of the Company, Mr. Wang Jun, has resigned from the Company for personal reasons. At the second meeting of the 8th session of the Board of Directors of the Company held on 24 July 2022, the "Resolution on the Appointment of Joint Company Secretaries" was considered and approved to terminate the appointment of Mr. Wang Jun as company secretary and to appoint Mr. Ge Xiaolei and Ms. Ng Ka Man as joint company secretaries of the Company. The Hong Kong Stock Exchange has granted a waiver to the Company in respect of the appointment of Mr. Ge Xiaolei and Ms. Ng Ka Man as the joint company secretaries of the Company for a period from 24 July 2022 to 23 July 2025. For details of the foregoing, please refer to the announcement on change of company secretary of the Company dated 24 July 2022.

By order of the Board
Aluminum Corporation of China Limited*
Ge Xiaolei
Joint Company Secretary

Beijing, the PRC
21 March 2023

As at the date of this announcement, the members of the Board comprise Mr. Liu Jianping, Mr. Zhu Runzhou, Mr. Ou Xiaowu and Mr. Jiang Tao (Executive Directors); Mr. Zhang Jilong and Mr. Chen Pengjun (Non-executive Directors); Mr. Qiu Guanzhou, Mr. Yu Jinsong and Ms. Chan Yuen Sau Kelly (Independent Non-executive Directors).

** For identification purposes only*